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**The impact of disinvestment from alcohol and drug treatment
services in England between 2013/14 and 2018/19:
a multimethod study.**

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Abstract

Background

Whilst only a small proportion of the population experience substance use disorders, the burden of related harm is substantial and far-reaching. Alcohol and drug treatment offers an effective policy approach to improving health and social outcomes for individuals, their families and society. Due to the harm and economic pressures resulting from substance use disorders in England, most alcohol and drug treatment is publicly funded. Since 2014, England's local authorities' spending on treatment for substance use disorders has reduced during a period of sustained public sector austerity. Parallel to this disinvestment there have been reported reductions in numbers of people accessing support, reductions in the proportion of people successfully completing treatment and increases in associated harm. This research was designed to examine the impact of disinvestment from alcohol and drug treatment services in England between 2013/14 and 2018/19.

Methods

Following the completion of a systematic review of the existing evidence of how disinvestment from alcohol and drug treatment has impacted on treatment delivery and outcomes, this multimethod study focused on England comprised three sequential phases. Phase One used linear mixed effect modelling of matched annual administrative treatment, hospital admissions and mortality data to examine whether disinvestment from alcohol and drug treatment services was associated with changes in treatment numbers and health outcomes. These results informed the following two phases which focused specifically on the perspectives of England's 151 local authority-based alcohol and drug treatment commissioners. Phase Two involved semi-structured telephone interviews to understand their experiences of changes in funding, related commissioning, and service provision. Thematic analysis then informed the design of Phase Three: a bespoke online survey to assess the extent to which these reported experiences were shared by a larger sample of commissioners.

Results

After adjusting for inflation, between 2013/14 and 2018/19, £212.2 million was disinvested from treatment for substance use disorders, representing a 27% decrease. Less than 1% was disinvested from alcohol treatment, yet 35% from drug treatment, with substantial regional variation in changes in investment and relative treatment numbers. This disinvestment was related to fewer people accessing (0.303, $p < 0.001$) and successfully completing (-0.205, $p < 0.001$) treatment. However, disinvestment was not found to be significantly related to increases in alcohol-specific hospital admissions or mortality, not drug-related deaths.

Interviews with 14 commissioners identified parallel changes in commissioning practice, service structure and public policy. Survey responses representing 55% (n.83) of local authorities confirmed losses of additional funding streams and reductions across all service provision. Challenges presented by the local authority environment included competing priorities and a significant reduction in the size of specialist commissioning teams (-58% $t(55)=-5.607$ $p<0.001$). Most areas had moved to integrated community alcohol and drug treatment services in response to budget cuts, but this is perceived as contributing to fewer people accessing alcohol treatment. Regular re-tendering has further compounded reductions in people successfully completing treatment.

Conclusion

Significant and sustained disinvestment from alcohol and drug treatment services in England has contributed to fewer people accessing treatment for substance use disorders and fewer people successfully completing treatment. Commissioners report that whilst changed practices have helped to moderate the effects, continued disinvestment has resulted in unavoidable negative impact on the availability of treatment for people in need of support, and the effectiveness of treatment, for those engaged in services.

Thesis overview

This thesis is divided into three parts, incorporating four manuscripts prepared for journal publication.

Part One – Background, the evidence base and the approach

Chapter One provides the background to the research and describes the context of publicly funded alcohol and drug treatment for adults. It details harm from alcohol and drug misuse, the policy and strategic context of treatment (as part of a plethora of approaches to reduce harm), and how treatment is funded and provided in England.

Chapter Two is a systematic review of the existing evidence base which has been submitted for publication. It synthesises literature that examines the impact of disinvestment from alcohol and drug treatment services in England and incorporates learning from other Organisation for Economic Co-operation and Development settings and relevant public health services.

Chapter Three is the methodology chapter and presents the research aim and objectives. It outlines the methodological approach including my epistemological position, an overview of mixed methods research and their relevance to the study design. It provides details of each phase and the integrative elements.

Part Two – Results

Chapter Four presents a paper published in Drug and Alcohol Review, detailing Phase One of the study. Using routine data, it examines the relationship between disinvestment from adult alcohol and drug treatment in England with treatment access, successful outcomes, alcohol-specific hospital admissions and mortality and drug-related deaths.

Chapter Five presents a paper submitted for publication, detailing Phase Two of the study. It uses semi-structured telephone interviews with alcohol and drug treatment commissioners to explore their experiences and perspectives on the impact of changes in investment, adding rich context to the trends identified in Phase One.

Chapter Six presents a paper prepared for journal submission, detailing Phase Three of the study. This final phase of the study uses an online survey of England's alcohol and drug treatment commissioners generating mainly quantitative data with some additional qualitative insight.

Part Three – Discussion and conclusion

Chapter Seven highlights the key findings of the study in the discussion and summarises the meta-inferences from the composite study. It considers the results in the context of previous literature and reflects on the key methodological strengths and limitations. Recommendations

are made for future research and implications of the study for treatment policy and practice are presented before concluding the thesis by summarising the contribution made to the scientific field.

Acknowledgement of collaborative work within the thesis

This thesis contains four manuscripts that have been prepared for, submitted to, or published in, journals. The candidate (SR) confirms that the work submitted in this thesis is her own, except for work that has formed part of jointly authored journal publications. Each authors' contribution is indicated explicitly below. The candidate confirms that appropriate credit has been given within the thesis where reference has been made to others' work.

Chapter two: *The impact of disinvestment on alcohol and drug treatment delivery and outcomes: a systematic review*. [An updated version has since been published in BMC Public Health]

Author: Suzie Roscoe.

Co-authors: Jennifer Boyd, Penny Buykx, Lucy Gavens, Robert Pryce, Petra Meier.

SR led conceptualisation and development of the review, with input from LG and PB. SR led the search, review, and quality appraisal. JB reviewed all papers to confirm eligibility, and completed thematic analysis of half of the papers, prior to discussion and agreement of final themes. JB also independently quality appraised a random sample of 25% of included papers. SR was a major contributor in writing the manuscript and SR, JB, PB, LG, RP and PM read, edited, and approved the final manuscript.

Chapter four: *Is disinvestment from alcohol and drug services associated with treatment access, completions, and related harm? An analysis of English expenditure and outcomes data*. [Published in Drug and Alcohol Review]

Author: Suzie Roscoe.

Co-authors: Penny Buykx, Lucy Gavens, Robert Pryce, Petra Meier.

SR led the study and analysis design and conducted data collection and analysis. SR planned and wrote the manuscript. PB, LG, RP and PM contributed to study and analysis design and to revisions of the manuscript.

Chapter five: *Commissioner perspectives on the impact of disinvestment from alcohol and drug treatment services – a qualitative inquiry in England*.

Author: Suzie Roscoe.

Co-authors: Penny Buykx, Lucy Gavens, Robert Pryce, Petra Meier.

SR led the study and analysis design and conducted data collection and analysis. SR planned and wrote the manuscript. LG independently coded a subset of three transcripts with no prior

knowledge of draft themes before comparison and finalisation of themes and subthemes. PB, LG, RP and PM contributed to study and analysis design and to revisions of the manuscript.

Chapter six: *Disinvestment decisions and changes to the commissioning and provision of alcohol and drug treatment services: a survey of English commissioners.*

Author: Suzie Roscoe.

Co-authors: Penny Buykx, Lucy Gavens, Robert Pryce, Petra Meier.

SR led the study and analysis design and conducted data collection and analysis. SR planned and wrote the manuscript. PB, LG, RP and PM contributed to study and analysis design and to revisions of the manuscript.

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Part One: Background, the evidence base and the approach

1. Introduction

1.1. Prevalence and harm

Whilst only a small proportion of the population experience substance use disorders, the burden of related harm is substantial and far-reaching. Of just under 44 million adults in England in 2017/18, an estimated 586,780 (1.34%) are estimated to be in need of specialist treatment for alcohol dependence (1) and approximately 11 million are drinking more alcohol than the UK recommended guidelines (2). A further 313,971 (<1%) of 15-64 year olds are estimated to be opiate and/or crack cocaine users (OCU) (3). Harmful use of alcohol and drugs can impact negatively on an individual's physical and mental health and wellbeing, their working lives, and local communities (4–7), affecting their relationships, quality of life, and life expectancy (8,9). These negative consequences of substance use disorders often place demand on publicly funded services, including health and social care, accommodation providers, criminal justice and emergency responders (10–13).

Substance use disorders are associated with negative physical and mental health consequences (14). Alcohol misuse contributes to over 200 health conditions and acute and chronic alcohol-related hospital admissions (7,15–18). Drug misuse is associated with sexual risk taking, poor vein health (in injecting drug users), blood borne viral infections, liver damage from untreated hepatitis C and cardiovascular disease (17). Substance use disorders can contribute to poor mental health (19–26), and mental ill health can trigger substance use in attempt to suppress symptoms (25,27). Substance use disorders are also associated with reduced quality of life and premature mortality (28,29). Alcohol misuse is the leading risk factor for premature death amongst 15-49 year olds (4,7,30,31) and the rates of death for people with opiate use disorders are ten times higher than the general population (32,33).

There is substantial regional variation in the prevalence of substance use disorders and attributable harm, explained by multiple factors. For example, social determinants of health (the conditions into which we are born, live, work and age), alcohol-control measures, stigmatisation of people with substance use disorders, and access to treatment (34–38). Estimated rates of alcohol dependence among adults vary across local authorities, ranging from 0.66% in Wokingham to 3.77% in Blackpool (1). The estimated prevalence of opiate and crack cocaine use (OCU) varies across England with lowest rates observed in Rutland (2.08 per 1,000) and highest in Middlesbrough (25.51 per 1,000) (39). In addition to regional variation there are observed differences in prevalence and harm between different socioeconomic groups, contributing to health inequalities (40). Health inequalities are defined as:

“systematic differences in health between different socioeconomic groups within a society. As they are socially produced, they are potentially avoidable and widely considered unacceptable in a civilised society” p473 (41).

The seriousness of health implications of substance use disorders differ between low and high socioeconomic groups (42–45). People living within the most deprived areas are more likely to develop problematic use (46) and experience greater harm (31,47). For alcohol, this occurs despite most alcohol being consumed within the least deprived areas (31); a phenomenon often referred to as the alcohol harm paradox (48,49). People living in the 30% most deprived areas account for approximately half of alcohol-related hospital admissions (31) and alcohol-related deaths among men and women in most deprived socioeconomic class are 3.5 times and 5.7 higher, respectively, than those in the least deprived (50). Rates of drug-related deaths are statistically significantly higher in most deprived areas than the least deprived for men and women; with rates for women up to 5.5 times higher in the least deprived areas and men up to 8 times higher (51).

The impact of substance use disorders, and associated health inequalities, is not isolated to those with substance use disorders or those living within the most deprived areas. There are additional health and social consequences for broader society, including, for example, increased violence and infectious diseases (52). As health inequalities result from complex interactions of multiple factors (53), approaches to reducing inequalities need to combine the offer of individual support whilst seeking to address the wider social determinants of inequalities (53,54). Providing services proportionate to levels of disadvantage (54) – including the reallocation of funding for substance use services to the areas worse affected by socioeconomic disparities – and undertaking equality impact assessments (41,53) can result in a reduction in overall costs and greater marginal benefit of any investment made (52,54).

1.2. Treatment policy

The policy options available to reduce harm associated with alcohol and drug misuse are numerous, including control policy and legislation, education and treatment (31,55), and specific to alcohol: taxation and regulation (31). This section focusses on treatment policy. Alcohol and drug treatment has shown to be an effective policy approach to improving health and social outcomes for individuals, their families and society (31,55–63). Alcohol and drug treatment for substance use disorders is effective in reducing use (including achieving abstinence), improving physical and mental health, and preventing premature deaths (29,64–71). Furthermore, effective treatment can contribute to improved social functioning and relationships (72–74), and reduced criminality (6,75–77).

Treatment for substance use disorders in England is delivered primarily via community providers who coordinate and offer a range of support based on individual need and clinical guidelines (67,78). Treatment services are expected to address substance use and the broader factors which contribute to related harmful health and social behaviour, reducing consumption and preventing relapse (79). Treatment typically incorporates psychosocial support, detoxification, rehabilitation and maintenance (80), determined via screening, comprehensive assessment and care-planning and may include one or more of the modalities (or treatment types) (63,81,82) listed in Table 1.

Table 1: Overview of main treatment modalities for people with alcohol or drug dependence (63,81,82)

Treatment modality	Brief explanation	Typically provided by
Psychosocial support	Refers to a broad range of interventions aimed at psychological and social change used throughout treatment. It can include motivational interviewing.	Commissioned community alcohol and drug service.
Prescribing of medicines	This can include, for example, substitute prescribing for opioids such as Methadone.	Commissioned community alcohol and drug service or primary care via Shared Care arrangements.
Community or inpatient detoxification	Providing medically assisted withdrawal from alcohol or drugs, in a home, community or inpatient setting (for higher risk presentations), to achieve abstinence. Titration from drugs also provided.	Commissioned community alcohol and drug service or inpatient detoxification unit. NHS hospitals provide detox for unplanned admissions.
Blood-borne virus identification and treatment	Testing, immunisation and treatment for Hepatitis-C, Hepatitis-B, Hepatitis-A and HIV.	Commissioned community alcohol and drug service or NHS Trust.
Residential rehabilitation	Residential structured programmes to support someone to maintain abstinence.	Commissioned community alcohol and drug service, or privately funded, residential rehabilitation facility.
Recovery-specific support	This might include mutual-aid, peer support or access to community resources.	Commissioned community alcohol and drug or recovery-specific service, Alcoholics Anonymous, Narcotics Anonymous, SMART recovery groups.

In addition to these modalities, early intervention processes are important elements of policy for substance use disorders. Typically, this refers to a process of screening, provision of a brief intervention or advice, and the appropriate onward referral into specialist treatment (83,84). Early intervention approaches often rely upon successful engagement of non-specialist organisations, such as primary care, to support effective delivery (85,86). Early

treatment policy focused on improving the number of people with substance use disorders engaging, and maintaining, in treatment due to its effectiveness at reducing harm (87). However, more recently, there has been a growing focus on recovery from substance use disorders (87,88). This represents a shift away from traditional clinical approaches, and focuses on the support to enable recovery or prevent relapse¹ (89). This approach emphasises the importance of supporting people with substance use disorders to build personal, social and community capital (90–92), enabling them to achieve healthier and more meaningful lives (93). This could include developing care plans that acknowledge the importance of supportive social networks (94–98), access self-help groups (98–100), meaningful activity (for example, volunteering or employment) (94,95,97), healthy environments (94,97,101,102) and/or embrace religiosity or spirituality (89,94,103,104). As a person increases their recovery capital, it should improve the likelihood of continued control over substance use, improved health, wellbeing and social functioning and therefore quality of life (105–107). Ultimately, supporting a person with a substance use disorder into recovery can reduce demand within specialist services (108).

In England, publicly funded (free at the point of access) treatment is made available through a process of commissioning. Commissioning refers to a cycle of strategic activity consisting of several key elements involving the identification of need and planning an appropriate response (*Figure 1*) (109), ensuring the best possible value for public money in terms of effectiveness of services within the budget available (109–111).



Figure 1: Commissioning cycle (109)

¹ A relapse is a return to previous levels of drinking or drug-taking

Often, this will include procurement activity, where commissioners develop service specifications and contracts at a specified price to highlight key activities and processes required and what outcomes they would like a service to achieve. This is often followed by advertisement on an open market to invite applications from suitable providers, in line with European Union regulations (112). This will usually form part of a broader delivery (or action) plan, outlining key activities to be delivered via a multi-agency approach in response to identified need.

1.3. Treatment engagement and effectiveness

Increasing the number of people with substance use disorders engaging in treatment reduces pressure on broader, and more costly, health and social care, and criminal justice services (72,77,113). A person who engages in effective treatment can significantly improve their health, wellbeing and social functioning (31,55–63). Treatment for substance use disorders has been identified as effective at reducing consumption (including achieving abstinence) and reducing risk taking behaviours and bloodborne viral infection (67,114,115). Alcohol treatment for this cohort can prevent (further) hospital attendances, (re)admissions and shorten the length of stay of those who are admitted (116–119). Accessing treatment for substance use disorders can prevent premature death (69,71,118), including for people who experience multiple relapses (70) with continued reduction in risk post-treatment (120).

Many factors can influence a person's decision to access treatment. Individual level factors affecting engagement include the severity and complexity of their misuse and dependence, their personal characteristics, as well as their living, employment and financial status and co-occurring mental or physical ill health (80,121,122). People may only seek support after crisis which can be many years after problematic substance use has commenced (123); some will never seek help (124). In England, treatment engages a much higher proportion of people with drug use disorders (60%) (55) than people with alcohol use disorders (less than 20%) (125). A person's treatment journey often takes multiple engagements and re-engagements with services before they are in a position to accept support (126,127). The structure of services, the availability and quality of services can also impact on engagement and success (80). The location (proximity) and configuration of services are important to treatment access (128). Early intervention has been identified as key in preventing the development of problematic use of alcohol and drugs, and the delivery of support within non-stigmatised settings, and screening and brief intervention programmes support effective early intervention (129,130). Knowledge of available support (126), an understanding of pathways, referral processes and opening times, and appointment flexibility can increase referrals from non-specialist services into treatment (80). Effective screening programmes resulting in a brief

intervention can be an effective standalone way to reduce harm but the process can enable access to specialist support at the earliest opportunity (129).

Once treatment is accessed, the individual approach of staff working within treatment services can influence continued engagement. The ability to build trust and the demonstration of non-judgemental attitudes, commitment and care are identified as important to enable people to be open and honest throughout assessment processes and hence pivotal to informing the offer of an appropriate package of support (131,132). Timely and continuous engagement during the early stages of engagement are important to successful assessment processes (131). Specialist training for staff, such as motivational interviewing skills and how to support people with complex needs, is identified as important to successfully retaining a person in treatment (132–134). Retention in treatment and client satisfaction have been identified as key predictors of positive outcomes from alcohol and drug treatment (132,135,136).

Treatment services need the sufficient capacity to appropriately identify, engage, and respond flexibly to a full spectrum of support needs (79,137), and staff need to be sufficiently supported and feel motivated (138,139) whilst countering any stigmatised attitudes and behaviours (86). Treatment effectiveness is enhanced by staff specialism, providing an individual focus, appropriate use (and size) of group support, and a comfortable environment (131,140,141). The therapeutic relationship established between substance use treatment worker and a person accessing support has been found to be more important to successful outcomes than treatment modality or type (142–144). The treatment worker's ability to build empathetic relationships with people accessing support and consistency in care impacts on the quality of service provided (131,137).

Policy also has the potential to impact service engagement and improve outcomes but the process to do so is complex (145). There are many aspects that contribute to the level of effectiveness of treatment for substance use disorders. Effectiveness here refers to:

“the extent to which a particular service is responsible for positive changes in substance use and substance-related problems” pS52 (79).

Policies focussed on the recognition, and reward, of “in treatment” outcomes (146) and those that enable personal choice in recovery support have shown potential for improving treatment effectiveness (145–147). Improving treatment effectiveness is complex and requires consideration of multiple contributing factors (148). The effectiveness of treatment relies upon effective commissioning processes with appropriately resourced and specialist workforce to make it work (149,150). Local authority-based commissioners need to ensure local need is understood, that treatment services are effective and efficient (71,137,151,152), requiring the successful management of large and complex projects (113,153,154).

Progress made within England's treatment system to improve engagement and effectiveness of its support offer has been noted. Following substantial increases in the amount invested in drug treatment between 1999 and 2009, the number of people engaging in treatment doubled, (114). In 2017, Public Health England released a report which compared progress made by drug treatment in England with other country settings, including other UK countries, Europe, Australia, Canada and the United States (55). It concluded that England's position, relative to other countries, was positive in terms of high rates of treatment penetration, quick access to support, relatively low levels of drug injecting and rates of drop out within six months and a very low rate of HIV among injecting drug users. It also revealed that treatment was effective at reducing offending and improving successful completions for non-opiate users. However, the relatively poor performance in the rate of abstinence from illicit opiates and drug-related deaths were of explicit concern. Aside from individual socio-demographics, the geographic and organisational variation in provision has been identified as the greatest predictor of outcome variability (155). Understanding the substantial variability in the apparent effectiveness of drug treatment and what has contributed has been highlighted as important to future treatment policy development (68).

1.4. Treatment funding

Due to the substantial level of harm and economic pressures resulting from substance use disorders in England, most alcohol and drug treatment is publicly funded. Since 2013, local authorities have been solely responsible for improving *"the take up of, and outcomes from, its alcohol and drug misuse treatment services"* p6 (156). This followed the introduction of the Localism Act which received Royal Assent in 2011 and was designed to decentralise power from national government and provide local authorities with increased autonomy over investment decisions aligned to local priorities (157). The main source of funding for treatment in England is the Public Health Grant, paid by Public Health England to local authorities in quarterly instalments (158). Investing in treatment reduces harm associated with substance use disorders and is therefore deemed as cost beneficial (46,114,159).

The amount of Public Health Grant allocated to each local authority is calculated utilising mortality rates, population estimates, population characteristics and national variations in the cost to deliver public health services (160). Routine information is available detailing local authority's use of the Public Health Grant, including investment in alcohol and drug treatment services (161). In 2013/14, more than £770 million of Public Health Grant was invested in alcohol and drug treatment services 2013/14, with over two thirds of the amount each year being spent on adult drug treatment.

In addition to the Public Health Grant, other funding bodies including Clinical Commissioning Groups (162,163) and Police and Crime Commissioners (164) have often provided smaller and service-specific investment, such as Blood Borne Virus and criminal justice interventions within treatment systems. Prison-based services are commissioned separately by NHS England (165).

The costs of different treatment modalities vary substantially, with estimates ranging from £56 per person per week for someone receiving specialist prescribing, to £1076 per person per week for inpatient detoxification (166). Historically in England most commissioned treatment services were delivered by NHS providers. The 2010 Drug Strategy encouraged increased competitive tendering to drive efficiency and standards within treatment services (167) and within the last 20 years, there has been a growing number of voluntary sector organisations winning contracts to provide alcohol and drug treatment services (168).

In England, information regarding individuals' (who have provided consent) contact with alcohol and drug treatment is collected in a database called the National Drug and alcohol Treatment Monitoring system (NDTMS). This information is shared with Public Health England (now Office for Health and Disparities) to understand people's access to, and effectiveness of, the support they receive (169).

The estimated total cost of alcohol and drug treatment in 2013/14 (as accounted for by NDTMS) was £920 million, with a mean cost of £5,032,802 (SD 391,158) per local authority; 83% of which was represented by drug treatment costs (170). This total was based on costs derived from a 2008/09 survey of treatment agencies, with inflationary uplifts appropriate to 2013/14 (170). This was based on NDTMS data reporting approximately 319,000 people engaging in 413,000 treatment episodes in England in 2013/14. The estimated costs of drug treatment have always represented the majority (83%) of costs associated with alcohol and drug treatment, due to the number of people engaging, length of time in treatment, and the type of intervention(s) provided (170). Typically drug treatment in England involves longer term psychosocial support and pharmacological interventions which are more expensive (171).

1.5. Changes in investment

Since 2014, local authorities' Public Health Grant spending on treatment for substance use disorders has reduced substantially during a period of sustained public sector austerity. According to data made publicly available via the Ministry of Housing, Communities and Local Government, between 2013/14 and 2018/19 the reported Public Health Grant spend on treatment reduced from £773.4 million to £630.4 million, representing a 19% disinvestment (Table 2, own analysis of the data) (161). This includes a 6% increase in the amount of money

invested in alcohol treatment and a 27% decrease drug treatment across England's local authorities(161):

Table 2: Overview of public health alcohol and drug treatment spend 2013 to 2019²

Year	Amount invested in adult alcohol treatment (% change from previous year)	Amount investment in adult drug treatment (% change from previous year)	Total amount invested in adult alcohol and drug treatment (% change from previous year)
2013/14	£204,286,000	£569,138,000	£773,424,000
2014/15	£200,270,000 (-2%)	£562,873,000 (-1%)	£763,143,000 (-1%)
2015/16	£208,059,000 (+4%)	£558,864,000 (-1%)	£767,728,000 (+<1%)
2016/17	£222,131,000 ³ (+7%)	£480,629,000 (-14%)	£702,760,000 (-8%)
2017/18	£221,451,000 (-<1%)	£430,558,000 (-10%)	£652,009,000 (-7%)
2018/19	£217,118,000 (-2%)	£413,243,000 (-4%)	£630,361,000 (-3%)
Overall change from 2013/14 – 2018/19	+ £12,832,000 (+6%)	-£155,895,000 (-27%)	-£143,093,000 (-19%)

There are no publicly available reports detailing specific amounts invested via non-Public Health Grant funding so we do not know whether local authorities' investment in treatment reflects costs, nor how changes to these income streams may have moderated or compounded any impact of public health disinvestment.

The recorded disinvestment from alcohol and drug treatment services has occurred within a context of large reductions in local authorities' spending power (172). As part of a national government-led austerity programme, leading to sustained reductions in available funding, local authorities have had a 28.6% real-terms reduction⁴ in local authority spending power between 2010/11 and 2017/18 (172). This includes a £2.6 billion reduction in the Public Health Grant for like-for-like services⁵ between 2013/14 and 2017/18 (173). The Local Government Association projected that by 2020, local authorities will have faced a reduction of £16 billion in core funding over a decade, and the services they finance will be faced with a £7.8 billion gap in funding by 2025 (174).

There have also been reports of funding cuts disproportionate to local need, reports of large variation in the quantity and quality of services provided and particular concerns raised about the drop in alcohol treatment numbers (175). This includes the impact of local authority cuts, and the disproportionate cuts to public health grants, in areas of highest need (176,177),

² Unadjusted for inflation (286)

³ In 2016/17, the Revenue Accounts reported separately on spend on treatment and prevention. The included figure represents the combined total so comparable with previous years

⁴ Central government funds plus council tax

⁵ Excludes 0-5 children's services as it was introduced as a new responsibility from 2015 (287)

where public health interventions are most needed (178). The Institute for Public Policy Research revealed substantial differences in the percentage budget cuts to alcohol and drug services between 2013/14 and 2018/19 comparing the 10 most deprived local authorities (-32%) with the 10 least deprived areas (-8%) (176). Given the earlier exploration of health inequalities relating to substance use, we might be able to predict that larger cuts in areas of higher need are likely to widen such gaps. Critics argue that the achievability of the alcohol and drug strategies are wholly undermined by disinvestment and that the future of substance misuse prevention and treatment services are under serious threat (179–182). Neither the effects or rationale for changes in funding, nor the geographical or socio-economic variation, are currently understood.

1.6. Decreasing treatment numbers and parallel increases in harm

Parallel to disinvestment there have been reported reductions in the number of people accessing support, reductions in the proportion of people successfully completing treatment and increases in associated harm. The most recently published information reveals an overall slight downward trend in people accessing treatment. In 2018-19, 268,251 adults were in contact with alcohol and drug treatment services including, 75,555 for alcohol only, 139,845 for opiates and 24,293 for non-opiates⁶ (183). Compared to 2013/14, this includes 19% fewer people receiving treatment for alcohol only, 9% fewer for opiates and 7% fewer for non-opiates (175,183). Of those engaging in treatment, there has been a reduction in the proportion of people successfully completing treatment. Compared to 2013/14, there has been a 7% drop in the proportion of people who access treatment completing treatment free of dependence for opiates (33% to 26%) and non-opiates (63% to 56%) (183). However, the proportion of successful completions for alcohol has remained at 61% (183).

The 19% reduction in the number of people engaging in alcohol treatment between 2013/14 and 2016/17 was the rationale for Public Health England's rapid inquiry into the fall in people in alcohol treatment. The inquiry involved focus groups in 14 local authorities; some having experienced increases in the numbers accessing alcohol treatment and others, decreases (175). Subsequent structured conversations took places with commissioners from 69 local authorities where there had been greater than 10% declines in the number of people accessing treatment. The inquiry identified perceived financial pressures and service reconfiguration contributing to declines, with some unintended negative consequences of alcohol and drug treatment service integration.

Concurrent to disinvestment from substance use disorders, alcohol-related hospital admissions, and substance use related deaths have continued to rise. England has

⁶ A further 27,627 were in contact with services for alcohol and non-opiate treatment.

experienced continual growth in alcohol-related⁷ hospital admissions, and in the last nine years they has risen from 1,639 per 100,000 per population in 2008/09 to 2,367 per 100,000 population in 2018/19 (184). In 2018/19 there were almost 1.3 million alcohol-related admissions, 28% of which were wholly attributable to alcohol i.e. known to be exclusively caused by alcohol (184). Non-elective hospital admissions are estimated to cost between £626 (short term) to £3,026 (long term) per stay (166). Hospital admissions and deaths resulting from alcoholic liver disease have risen exponentially since 1970 (17,184). The increasing number of deaths from liver disease in the UK have been largely attributed to the rising number of people misusing alcohol (185,186). In 2018, alcohol was associated with 24,720 deaths in England, 67% of which were men and it was estimated that 314,170 potential years of life were lost due to alcohol in those aged under 75 years (184).

The number of people dying as a result of drug misuse is currently at its highest on record and has grown rapidly since 2011, rising by 65% in the period to 2018 (187). Death records relating to non-medical use of opioid drugs (including illicit heroin), reference long term health conditions associated with drug misuse, violence and road traffic accidents (188). Heroin and crack cocaine use, in particular, are associated with the majority of drug-related health and social harms in England (189). In 2018, 3,983 deaths due to drug poisoning were registered, two thirds of which were related to drug misuse (51). Most drug-related deaths are among men (68%) but the number and rate among both sexes are increasing. The highest death rate is among 40-49 year olds, associated with an ageing population of heroin users, due to negative health consequences of long-term use (187,190).

1.7. Introduction chapter summary

This chapter has provided an overview of relevant literature and concepts central to the development of this study. It has detailed why treatment for substance use disorders is funded, how it is commissioned in England and outlined factors known to improve treatment engagement and successful outcomes.

There are multiple ways in which alcohol and drug misuse can result in individual, familial and societal harm and treatment is evidenced as an effective policy for achieving positive health and social outcomes for individuals and society. Health and social harms relating to alcohol and drug misuse in England continue to rise, and the negative impact varies systematically between geographical areas and socioeconomic groups, with the most disadvantaged experiencing worse health outcomes. Since local authorities became responsible for the commissioning of alcohol and drug treatment, and during a time of sustained pressures within

⁷ Alcohol-related hospital admissions (broad), directly age standardised rate where the primary diagnosis or any of the secondary diagnoses are an alcohol-attributable code.

the public sector, there has been substantial disinvestment from treatment for substance use disorders. Concurrently, the numbers accessing alcohol and drug treatment, and the proportion of those successfully completing treatment, have declined. Meanwhile, alcohol-related hospital admissions, alcohol-related mortality and drug-related deaths have continued to rise.

However, we still know little about how disinvestment has contributed to this deteriorating picture. The next chapter presents a systematic review of the existing literature as to how disinvestment has impacted on alcohol and drug treatment services in England.

2. Systematic review

ORIGINAL ARTICLE [an updated version has since been published in BMC Public Health (191)]

The impact of disinvestment on alcohol and drug treatment delivery and outcomes: a systematic review

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ABSTRACT:

Background: In the context of substantial financial disinvestment from alcohol and drug treatment services in England, our aim was to review the existing evidence of how such disinvestments have impacted service delivery, uptake, outcomes and broader health and social implications.

Methods: We conducted a systematic review of quantitative and qualitative evidence (PROSPERO CRD42020187295), searching bibliographic databases and grey literature. Given that an initial scoping search highlighted a scarcity of evidence specific to substance use treatment, evidence of disinvestment from publicly funded sexual health and smoking cessation services was also included. Data on disinvestment, political contexts and impacts were extracted, analysed, and synthesized thematically.

Results: We found 20 eligible papers varying in design and quality including 10 related to alcohol and drugs services, and 10 to broader public health services. The literature provides evidence of sustained disinvestment from alcohol and drug treatment in several countries and a concurrent decline in the quantity and quality of treatment provision, but there was a lack of methodologically rigorous studies investigating the impact of disinvestment.

Conclusions: This review identified a paucity of scientific evidence quantifying the impacts of disinvestment on alcohol and drug treatment service delivery and outcomes. As the global economy faces new challenges, a stronger evidence base would enable informed policy decisions that consider the likely public health impacts of continued disinvestment.

Background

Addressing the burden of alcohol and drug harm through the provision of treatment is a global priority (1). Treatment for substance use disorders reduces health and social harms from alcohol and drugs, providing a good return on investment (2–9). Many countries which publicly fund alcohol and drug services have been faced with large reductions in spending power, resulting in disinvestment from alcohol and drug treatment (10–13).

In England, increased investment in treatment in the early 21st century, was associated with improved treatment access, reduced waiting times, improved service quality and a reduction in related harm (14–16). Since 2012, there have been substantial changes to how drug and alcohol treatment in England is funded. The Health and Social Care Act 2012 transferred public health responsibilities, including the budget for alcohol and drug treatment, from the National Health Service to Local Authorities (local government organisations; N. 152 in England) (17). At the same time a ring-fence protecting the alcohol and drug budget was removed, although protection for the total public health budget remained (18). This transfer coincided with a period of public sector austerity in the wake of the global recession, with significant budget reductions for local government across a wide range of responsibilities (19,20).

There have been widely reported changes to the investment in alcohol and drug treatment since 2014/15, with overall reductions in the amount local governments are investing in these services (21,22). Concurrently, trends in routine monitoring data show declines in treatment outcomes and increases in alcohol and drug related deaths and alcohol-related hospital admissions, with substantial variation across the country (23–25).

Whilst there is a strong evidence base for the effectiveness, and return on investment, of alcohol and drug treatment, the impact of recent disinvestment from these services remains unclear. Therefore, it is of policy interest and timely to synthesise available literature. An initial scoping search focused on alcohol and drug treatment revealed a paucity of evidence and therefore this review also considers what can be learnt from literature about disinvestments from similar local authority public health services, namely sexual health and smoking cessation services, which have also faced cuts (26,27).

This review addressed the following questions:

- i) What is the impact of disinvestment from publicly funded alcohol and drug treatment for adults in England?
- ii) What is the impact of disinvestment from publicly funded alcohol and drug treatment for adults in other Organisation for Economic Co-operation and Development (OECD) countries?

iii) What can we learn from the impact of disinvestment from other publicly funded public health programmes, specifically smoking cessation and sexual health programmes, in England and other OECD countries?

Methods

Protocol, registration, and search strategy

Following an initial scoping search, a pre-specified protocol was developed and registered on the International Prospective Register of Systematic Reviews (PROSPERO, CRD42020187295, search strategy in supplementary information, p49). We undertook a systematic search of the following bibliographic databases in July 2020: EMBASE (1980 to June 2020), MEDLINE (1946 to June 2020) and CINAHL (1981 to June 2020). An extensive list of search terms was used against each of the above research questions (supplementary information, p48). To identify additional relevant, including grey, literature backward searching of citations was completed and www.evidence.nhs.uk and Google Scholar were searched using simplified search terms, for example, “cuts to alcohol and drug treatment”.

Inclusion criteria

Journal publications and grey literature pertaining to the review questions and search strategy were included. This included primary and secondary quantitative and qualitative

research examining the impact of disinvestment from the following publicly funded services: alcohol and drug, sexual health and stop smoking services. Relevant journal-published opinion pieces and grey literature from credible sources were also included. Any described or measured impacts related to disinvestment were included - for example, changes to the way services were commissioned or provided, treatment access and completion rates, and broader health and social implications. Sexual health and smoking cessation literature were included to enable learning to be drawn from comparable, large investment services that may have experienced budget cuts (28). Additional inclusion criteria were literature that was: published in English; focused on OECD countries; services publicly funded for example, by a government body or a national health organisation.

Data extraction and analysis

Titles and abstracts of citations were screened within the bibliographic databases and those meeting the eligibility criteria were imported to EndNote, and duplicates were removed. Full texts were reviewed to dictate inclusion or exclusion before a data extraction table was compiled. Each paper was quality assessed using the most appropriate available tool for the reported study design via the Critical Appraisal Skills Programme (CASP) and the Joanna Briggs Institute (JBI) (29,30). The grey literature were appraised via the Authority Accuracy Coverage Objectivity Date Significance (AACODS)

checklist (31) (supplementary information, p51). The papers were analysed thematically, adapting Braun and Clarke’s approach to qualitative data (32), and synthesised narratively, adopting the Synthesis Without Meta-analysis protocol (33). Lead author (SR) led the search, data extraction and analysis and a second author (JB) reviewed all papers to confirm eligibility, and completed thematic analysis of half of the papers, prior to discussion and agreement of final themes. JB also independently quality appraised a random sample of 25% of included papers. Given the heterogeneity of the papers and that no study attempted to quantify the primary question, no weighting was applied, according to, for example, whether claims are substantiated by empirical findings. Instead, an inductive thematic approach was used to explore conceptual similarities across heterogeneous literature to provide an overview of the politico-economic context of any disinvestments, related changes to provision and outcomes. The extraction tables (Table 1 and Table 2) provide details of the publication and / or study type.

Results

PRISMA diagram

Figure 1 shows the flow of articles through the review process. Database and grey literature searches returned 1,812 records; of which 196 underwent full text screening. Twenty papers were included in the review.

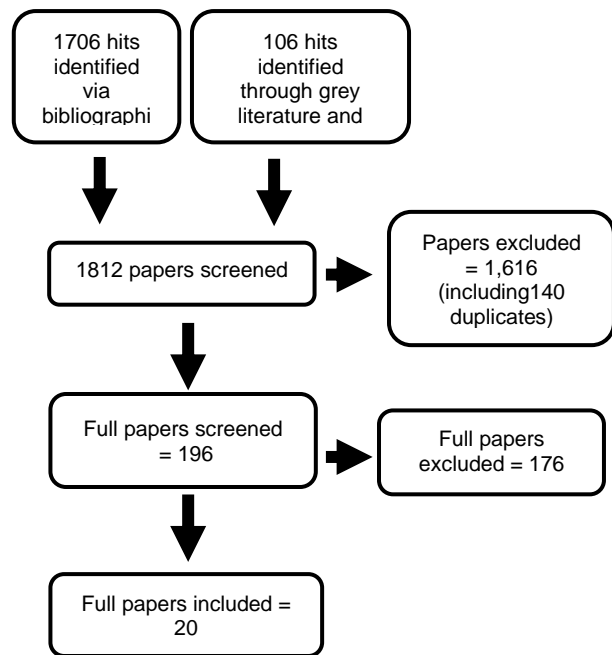


Figure 1: PRISMA diagram

Settings and quality of papers

Study characteristics

We found 20 eligible papers, comprising 13 research papers, five journal editorials and two substance misuse professional magazine articles. Ten papers related to alcohol and drugs services, three to sexual health services, two to smoking cessation services and five to public health services more generally. Table 1 is the extraction table for papers explicitly focused on disinvestment from alcohol and drug treatment services and Table 2 contains the wider papers. Four of the research papers were peer reviewed: one English study analysing results from a survey of local government tobacco leads regarding smoking cessation services (34), two US studies exploring data and literature on specific public health policy and funding (35,36), and one Japanese study analysing secondary survey and routine finance data

examining the relationship between (dis)investment and smoking cessation advice (37). Six of the remaining research papers focused on substance use (15,38–41) and were UK ($n = 5$) and multi-country European ($n = 1$) based. One of the five journal editorials (42), and both magazine articles (43,44), were substance use specific, the remainder focussed on broader public health services. The majority of these were from the UK (UK $n = 6$, Australia $n = 1$).

Quality assessment

Four quality appraisal tools were used to review the heterogeneous collection of literature. The selection of the most appropriate use of critical appraisal tool was not always straightforward but is detailed within the supplementary information (p51). For example, the Freudenberg et al. paper (45) was reviewed using the CASP systematic review checklist as the paper is a peer-reviewed synthesis of relevant literature. However, it does not follow a systematic review design and therefore it is unclear whether all relevant papers were included, or they were assessed for quality. Furthermore, the diversity of included publication types means that some were unlikely to have been written with quality appraisal in mind. For example, within the grey literature, the limitations and bias of the content covered (or the research undertaken) were not always explicit, which impacted on the ability to assess the overall accuracy of the papers. The overall quality of included papers according to quality appraisal was

modest. However, due to the limited number of relevant papers identified, no papers were excluded on the basis of low quality. No studies that attempted to examine a quantifiable or causal relationship between disinvestment from substance use services and treatment delivery or outcomes were identified. Instead, the studies tend to focus on changes in treatment provision and related health outcomes, concurrent - or subsequent - to disinvestment.

Thematic Synthesis

Three major themes were identified: i) diminished quantity and quality of services; ii) changed commissioning systems and practices; and iii) health, social and broader implications. We present findings relating to each of these themes in turn.

Table 1: Extraction table of literature specific to examining the impact of disinvestment from alcohol and drug treatment

Author and year published	Paper title	Peer reviewed	Population	Country setting	Sample size	Focus of paper	Method(s)	Publication type	Findings
Adfam, 2017 (15)	Commissioning impact on drug treatment	No	Stakeholders - providers, commissioners, Police and Crime Commissioner, Directors of Public Health, National probation service	England	23	Alcohol and drug treatment	Mixed methods: semi-structured interviews and secondary data analysis via convenience and snowballing sampling	Charitable organisation primary research report	Disinvestment thus far has not resulted in diminished quality or safety of the provision of alcohol and drug treatment services. Further service development is required to respond to need. Concerns about future cuts.
Advisory Council on the Misuse of Drugs, 2017 (38)	State of the Sector: Beyond tipping point	No	149 commissioning teams of drug treatment	England	106	Drug treatment	Mixed methods: literature review, secondary data analysis, survey, and statements from professional bodies	Statutory advisory non-departmental public body primary research report	Disinvestment is the biggest threat to drug treatment and achievement of recovery outcomes. Concerns regarding service quality and effectiveness, disconnection from other health services and impact of re-tendering.
Alcohol concern, 2014 (45)	A measure of Change: an evaluation of the impact of the public health transfer to local authorities on alcohol	No	England's alcohol treatment providers and local authorities and Clinical Commissioning Groups	England	75	Alcohol treatment	Quantitative: two cross-sectional surveys	Charitable organisation primary research report	Majority of alcohol treatment services had maintained or increased funding. Concerns that areas of high harm least likely to increase funding. Treatment providers less optimistic than local authorities about funding. Funding for alcohol treatment is

Author and year published	Paper title	Peer reviewed	Population	Country setting	Sample size	Focus of paper	Method(s)	Publication type	Findings
									insufficient for its priority focus.
Alcohol concern, 2018 (39)	The hardest hit: addressing the crisis in alcohol treatment services	No	Mailing list of Alcohol Concern's consultancy and training and "friends." Includes range of professionals and service users	England	154 Surveys and 40 interviews	Alcohol treatment	Mixed methods: secondary data analysis, cross-sectional survey, and telephone interviews	Charitable organisation primary research report	Reported insufficient funding of alcohol treatment and reduced workforce. Majority of stakeholders reported re-tendering within last three years. Mixed views regarding alcohol and drug service integration. Concerns regarding insufficient support for those with complex needs and older drinkers.
Blenheim, 2018 (40)	Failure by design and disinvestment	No	Alcohol and drug treatment provision in criminal justice settings	England and Wales	N/A	Alcohol and drug treatment	Opinion / Review of existing research	Charitable organisation research report	Concerns about disinvestment and its relationship to a reduction in the quality of support during transition from custody to community services for people dependent on drugs.
Cook (Harm Reduction International), 2017 (41)	Harm reduction investment in the European Union current spending, challenges, and successes	No	Harm reduction leads from 18 countries	Europe	18 EU member states	Drug treatment	Quantitative: cross-sectional survey and secondary data analysis	Non-Government Organisation research report	Future sustainability of harm reduction varies from fairly certain to extremely insecure. Public sector austerity, reductions in international donors and poor political support were perceived as factors contributing to the poor funding of harm reductions.

Author and year published	Paper title	Peer reviewed	Population	Country setting	Sample size	Focus of paper	Method(s)	Publication type	Findings
Drink and drug news, 2018 (44)	On a knife edge	No	Drug treatment population	UK	N/A	Drug treatment	Journalism	Magazine article	Concerns that disinvestment has contributed to a reduced focus on, and delivery of, harm reduction.
Hayes, 2018 (43)	At the heart of the matter	No	Alcohol and drug treatment population	UK	N/A	Alcohol and drug treatment	Opinion piece	Magazine feature	Concerns regarding disinvested and reduced treatment offer despite insufficient reach of alcohol services, increasing drug-related deaths, fragmentation from health services and increases in drug-related crime.
Mohammadi, 2014 (42)	Addiction services in England: in need of an intervention	No	Stakeholders within alcohol and drug treatment sector, including clinicians, consultants, and commissioners	England	Quotes from six sector stakeholders	Alcohol and drug services	Editorial, including quotes from stakeholders	Journal opinion piece	Exploration of changes in way services are commissioned. Changes from NHS to non-NHS providers and mixed views about the effects in terms of specialism and appropriateness for treatment population.

Table 2: Extraction table of literature examining the impact of disinvestment from public health services

Author and year published	Paper title	Peer reviewed	Population	Country setting	Sample size	Focus of paper	Method(s)	Publication type	Findings
Anderson et al, 2017 (34)	Political priorities and public health services in English local authorities: the case of tobacco control and smoking cessation services	Yes	152 Tobacco control leads from each upper tier authority	England	116 in 2014; 124 in 2015 and 129 in 2016	Smoking cessation services in England	Quantitative: cross-sectional survey. Longitudinal comparing 87 local authorities	Journal study	Political support for tobacco control mitigates the risk of cuts to smoking cessation budgets.
British Medical Association, 2018 (46)	Feeling the squeeze. The local impact of cuts to public health budgets in England	No	Public Health Professionals	England	N/A	Public health services	Quantitative: Secondary data analysis	Professional body research report	Changes in public health spending do not reflect the needs of local populations. Disinvestment leading to variation in quality and quantity of service provision.
Chang, 2010 (37)	Quit smoking advice from health professionals in Taiwan: The role of funding policy and smoker socioeconomic status	Yes	Participants of the Taiwan Adult Tobacco Survey	Japan	16,688 in 2004, 16,749 in 2005, 16,922 in 2006 and 16,588 in 2007	Smoking cessation services in Japan	Quantitative: secondary data analysis	Journal study	Quit prevalence increases were associated with increases in funding. Quit prevalence reduced, but not significantly, following disinvestment.
Davies et al (Quality Watch), 2016 (47)	Focus on: Public Health and prevention	No	120 Directors of Public Health, service providers and advocacy organisations	England	37 for survey and 11 interviews	Public health services	Mixed methods: secondary data analysis, cross-sectional survey, and interviews	Health think tank research report	6/10 public health indicators deteriorated between 2009-15, including alcohol-related hospital admissions but completion of substance use treatment improved. Positive views regarding local government procurement processes but concerns regarding effect of financial pressures on service

Author and year published	Paper title	Peer reviewed	Population	Country setting	Sample size	Focus of paper	Method(s)	Publication type	Findings
									accessibility and effectiveness.
Daube, 2012 (10)	A bleak outlook for public health?	No	Government funded public health programmes	Australia	N/A	Public health services	Editorial	Journal editorial	Concerns regarding the impact of public sector austerity on public health services, on de-prioritisation of public health, loss of specialist staff, and the withdrawal of specialist services to reduce inequalities. Concerns government legislative changes are at odds with public health ambitions.
Freudenberg et al, 2006 (48)	The impact of New York City's 1975 Fiscal Crisis on the tuberculosis, HIV, and homicide syndemic	Yes	New York City's population	US	N/A	Drug treatment and other public services	Secondary data analysis and literature review	Journal study	Estimated that \$10 billion cuts to public services, including public health, resulted in \$50 billion costs in controlling the TB, HIV, and homicide endemics.
Iacobucci, 2014 (49)	Raiding the public health budget	No	152 Upper Tier local authorities	England	143	Public health services	Editorial - Freedom of information request analysis	Journal opinion piece	Concerns regarding increasing use of public health grant to support broader local authority services and variation in commissioning across the country.
Iacobucci, 2016 (50)	Public health - the frontline cuts begin	No	152 Upper Tier local authorities	England	132	Public health services	Editorial - Freedom of information request analysis	Journal opinion piece	Decrease in public health grant and concurrent cuts to frontline public health services.
McFarlane and Meier, 1993 (35)	Restructuring Federalism: the impact of Reagan Policies on the	Yes	Population to benefit from family planning programmes	U.S.	N/A	Family planning services	Secondary data analysis and literature review	Journal study	Disinvestment from family planning services concurrent to a reduction in people supported and increased variation in

Author and year published	Paper title	Peer reviewed	Population	Country setting	Sample size	Focus of paper	Method(s)	Publication type	Findings
	Family Planning Program								services within more deprived groups.
Robertson et al, 2017 (51)	Understanding NHS financial pressures (from p26)	No	Population to benefit from GUM services	England	99 stakeholders from NHS	Sexual health services (and other NHS funded services)	Qualitative: semi-structured interviews	Charitable organisation research report	Continued financial pressures on services and for sexual health services, evidence of reduced accessibility and quality of provision. Increasing gap between demand and availability. Commissioners working to identify ways to maintain services.
White, 2016 (52)	Sexual health services: divided and unprotected	No	152 Upper Tier local authorities	England	150/152 local authorities	Sexual health services	Editorial - Freedom of information request analysis	Journal opinion piece	Large variation in local authority prioritisation of sexual health, and related investment in services. Evidence of cuts / planned cuts to sexual health services despite need.

Diminished quantity and quality of services

The literature offers insights to how services offered have changed in the wake of disinvestment, often relating a decline in the availability of treatment and a deterioration in the quality of support offered (10,15,36,38,40,41,43,46–48).

Initial cuts to alcohol and drug treatment services in the early to mid 2010s were purported to have provided opportunities to find efficiencies and drive service reform (15), and to focus on a greater return on investment (48). However, cuts that continued in the mid to late 2010s were described as detrimental to service availability and quality (15,38,40,41). Organisational research details stakeholder concern that the funding available for alcohol and drug treatment has become increasingly insufficient (15,39,48), and is mismatched to the vision for “gold-standard” treatment services in recent clinical guidelines (15,21,43).

As budget cuts continued, specific interventions and treatment modalities including harm reduction (41,44) and residential rehabilitation (39) were regarded as under particular threat. Mixed methods studies targeting treatment sector stakeholders revealed concerns about increasing caseloads, fewer appointments, the replacement of one-to-one work with group sessions, reduced harm reduction and less outreach support (15,38,39,41,46–

48). Similar changes have been experienced in smoking cessation and sexual health services following disinvestment, referencing a propensity to focus on acute care when budgets are tight (49–51). This latter concern has also been raised specifically in relation to the alcohol and drug sector, suggesting that services were having to revert to focussing solely on maintenance prescribing (43).

In addition to changes in the treatment offer, there were reports of a reduction in the number of people accessing (15,36,40) and successfully completing alcohol and drug treatment (48). This echoes experiences following disinvestment from sexual health services in the UK (49,50), from drug treatment in the US (36), and from smoking cessation support in Japan (37). In Japan, additional effects were seen following disinvestment, including reduced stakeholder engagement and fewer smoking cessation media campaigns (37).

Substantial changes in the alcohol and drug treatment sector during a period of disinvestment were purported to have contributed to an increasingly deskilled and disenfranchised workforce (15,36,38). This included examples of an overreliance on volunteers who had replaced paid staff (15,38), a loss of specialist positions (such as addiction psychiatrists for more generic clinician roles) (42), and a reduction in the amount of training for the sector’s workforce (15,37,38,42).

Changed commissioning systems and practices

The processes and systems that exist to commission public health services also appear to have experienced substantial change. Subsequent to the transfer of public health responsibilities to local authorities, the stretch on financial resources affected commissioning systems and practices (15,34,36,39,41,47). This included resulting changed responsibilities, procurement activity and fragmentation, with large variation across local authorities.

A growing number of local government areas in England are reported to have integrated various public health services into combined contracts, including the merger of community alcohol and community drug services (15,39,52). Limited attention has been given to the rationale for this move but budget efficiencies are cited in some cases (35,40), and these mergers have been criticised for reducing service effectiveness (35,51). Alcohol and drug treatment sector stakeholders raised concerns that integration can weaken evidence-based practice and that the merger of alcohol and drug services might result in a disproportionate, or diluted, offer for the alcohol treatment population (39).

Whilst it is unclear as to whether the number of retendering exercises has increased, the frequency and process of retendering of alcohol and drug services has been

described as hindering outcomes and detracting from frontline delivery of services for a period of up to 18 months (15,38–40,42,48,52). There has also been a rise in the use of payment by results, aligning all or partial contract payment to the achievement of specific goals, such as abstinence. Though recognised as an option for achieving a greater return on investment, such payment schedules are perceived as side-lining a client group for whom abstinence is not a goal (38,42).

Disinvestment has been linked to a reduction in the number of service providers able to bid for treatment contracts (15,38,50). The reduced budgets available to finance contracts is perceived as favouring non-National Health Service (NHS) to NHS providers (42). It is also been linked to a reduction in the number of organisations applying for treatment contracts, excluding smaller local organisations and the evolution of treatment systems led by national organisations (15).

Meanwhile, the expertise of alcohol and drug treatment commissioners in England is under scrutiny (15,39) with feedback from stakeholders that subject-specific expertise has been lost from commissioning teams as a result of staff turnover and an increase in the size and scope of commissioners' portfolios (10,15). This is echoed in sexual health services which have been criticised as fragmented, with disjointed services and an increasing lack of accountability (50). This includes examples of different aspects

of services being commissioned via different bodies with diverse procurement approaches, resulting in disjointed pathways. This fragmentation in commissioning arrangements has also been criticised as leading to isolated disinvestment decisions, especially when cuts to one service have knock-on implications for other parts of the system.

A further contention within the local authority environment for public health is the fit with local political agendas (35–37,42,46,48,49,51,52). Decisions about investment in a context of competing policy areas (51), investment choices being driven by popularity (38,49), and not being able to align the benefits of public health services with local authority strategy (or core business) (52) all appear to factor. Such differences across local authorities have been described as contributing to large variations in the prioritisation of public health agendas, investment, and service provision (35,49,52).

Health, social and other broader negative implications

Disinvestment from public health services has led to concerns about a downstream rise in demand on other publicly funded services, and increases in communicable disease and crime (15,35,36,39–41,43,46–48). Editorials have highlighted that concurrent to disinvestment from other public health services, there have been deteriorating related outcomes, including

increased rates of sexually transmitted diseases and teenage pregnancies, and a stagnation of the narrowing of socioeconomic gaps in life expectancy and quality of life (42,49,51,52).

One English study, analysing routinely collected secondary data, expressed concern about such disproportionate cuts to public health services contributing to widening health inequalities, with large variation in the quantity and quality of services available (47). In the US, a historical health impact study (35) attributed 30% cuts to family planning services to poorer health outcomes for low-income women.

Simultaneous to disinvestment from the alcohol and drug treatment sector have been increases in alcohol related hospital admissions and drug related deaths (15,43,46–48). A historical health impact study in the US identified that policy decisions and budget cuts to public health services led to reduced availability of drug treatment (36). The exponential rise (indicated by more than one epidemic) in tuberculosis and HIV within the injecting drug treatment population - although the relationship was not formally analysed or modelled – was attributed to these budget cuts. Similar concerns have been raised in England more recently, about the increasing number of drug-related deaths relating to fentanyl and how they might be linked to weakened needle exchange provision (44).

Furthermore, disinvestment appears linked to the withdrawal, or dilution, of services that support vulnerable groups (10,40,43). For example, large disinvestment from substance use prison services have been linked to a lack of supported transition to community treatment, poor case management and a lack of Naloxone, potentially contributing to the rise in drug-related deaths (10,40). Similarly, people who may have previously benefited from targeted programmes (50) appear further marginalised following policy changes, including ethnic minority groups (10), people experiencing ill mental health and those with housing needs (10,43).

Discussion

Policy makers are facing challenging public health investment decisions during a time of sustained public austerity. Twenty papers were identified that contribute to understanding the impact of disinvestment from alcohol and drug treatment, and related public health services, in England and elsewhere. Understanding the impact of disinvestment is limited and no previous study has systematically examined the evidence. This study synthesises heterogeneous papers that provide insight as to how disinvestment from public health services might affect service provision and outcomes. There are numerous reported changes to the way services have been commissioned which may have negatively influenced treatment quality. Whilst perhaps driven by a need for efficiencies, service

integration may have limited the specialisms within workforces and disproportionately impacted the alcohol treatment population. Internationally, studies have provided evidence about a good return on investment for alcohol and drug treatment, and other public health services (53,54). This includes improved health and social outcomes, and reduced demand on other publicly funded services (10–19).

Whilst there is evidence of attempts to limit direct impact on frontline services, the literature highlights concerns about the reduced quantity and quality of alcohol and drug treatment in England, following cuts to services. This is echoed in literature from other OECD countries and literature on disinvestment from other, similar public health services. This study also identifies some evidence that disinvestment might be impacting more on some of the most disadvantaged areas, and vulnerable communities, potentially contributing to increasing health inequalities. Certain aspects of the treatment system are reported to have been disproportionately affected by budget cuts. Fewer harm reduction services and residential rehabilitation facilities, and less one on one time, may present particular challenges for people with more complex needs (21).

The influence of political agendas and competing pressures - where investment decisions are devolved - may be contributing to inconsistent investment and treatment provision. Disinvestment was

often described in relation to the context of public sector austerity (15,34,35,43,47,48) and how some cuts have been disproportionate to need (10,38,47,55). An English study highlighted an 8% reduction in expenditure on substance use services versus a 5% reduction in the available public health grant between 2013/14 and 2017/18 (38). Two studies and an opinion piece also highlighted that local changes in investment in public health services in England had varied substantially between local authorities (39,47,49). Some of the areas that had experienced the highest levels of alcohol and drug-related harm had reported some of the biggest percentage cuts to service budgets (43,46,47). Investment decisions have been reported as being guided by political priorities and even personal stigmatisation of treatment populations (10,34,36–38,41). Given these concerns, and evidence that some vulnerable people may be being disproportionately affected by changes to treatment provision, it may be that disinvestment is contributing to widening health inequalities (56,57).

Further to the themes identified in this review regarding the impact of disinvestment, there were substantial references within the literature to the context and conditions of disinvestment. Previous increases in investment were reported to have enabled innovation, for example, increased psychosocial support for people with alcohol and drug

dependence and embedded support services within community settings (50). Despite a reported substantial rise in investment in alcohol treatment between 2013/14 and 2015/16 (15), some claims were made within the literature that funding for alcohol has always been insufficient, with over two thirds of amalgamated budget being spent on drug treatment (15,39,43,46).

Furthermore, the funding mechanisms devised to help protect public health grant funding in England (such as ring-fencing, to prevent expenditure on non-public health services) appear to have been limited in their success (15,34,38,48,50,52). These UK papers report public health grant funding being utilised to subsidise other local authority service provision, such as domestic abuse services, that do not fall within current *statutory* public health responsibilities. Within a context of local authority austerity, six papers highlighted stakeholder concerns that pressures on public health spending in the UK would further increase (15,38,41,47–49), due to an expected decreasing public health grant and the intended removal of the ring-fence.

Limitations of the study

The heterogeneity of the papers, in terms of the research methods employed and the way in which information was analysed and presented, limited our ability to synthesise results or make comparisons, leading us to choose a narrative-interpretive approach.

The focus of this review and synthesis of diverse literature means that some of the results from individual papers will not have been detailed. The alcohol and drug treatment papers often failed to clearly outline the objectives or proposed analyses of their studies and therefore lacked transparency as to the measured outcomes or the criteria used to assess impact. This made it difficult to differentiate impacts associated with disinvestment from impacts associated with simultaneous commissioning, service provision and policy changes, or indeed the drivers of those changes. Whilst the literature about England clearly reports financial disinvestment from alcohol and drug treatment services and the perceived impact of these cuts, the association between the two and the accuracy of the published financial information, have not been studied. Furthermore, the drivers of disinvestment remain unclear, and how cuts have impacted on different elements of the treatment system, for example, different treatment modalities, or the configuration of services.

Future research

This review has identified concepts which further empirical research should seek to examine to further advance the evidence of the impact of disinvestment from alcohol and drug treatment services, and other public health services. In England, for example, there are substantial routine data available to quantitatively examine the

effects of disinvestment on treatment access and outcomes, as well as additional broader health harms. In countries where such data is available, it could be matched on a local geography or where available, matching patient and treatment data and help us better understand variation in disinvestment and relative changes in treatment availability and effectiveness. As the systems that enable treatment appear complex and vary substantially, qualitative methods with key stakeholders could identify additional factors contributing to the effect of disinvestment. Within the reviewed literature, there is limited reference to attempts to moderate the impact of disinvestment and yet there are references to innovation in commissioning practices and service delivery during a period of sustained cuts. Further exploration of these factors may be helpful to support future decision-making to maintain treatment engagement and quality.

The important contextual factors to (dis)investment, regularly referenced within the literature which could aid future study design. For example, examining regional or socioeconomic variation in (dis)investment and treatment provision. This would help further advance our understanding as to whether budget cuts may be disproportionately affecting people living in deprived areas. Furthermore, research which seeks to understand local drivers of (dis)investment in alcohol and drug

treatment services may also help to identify protective factors.

The quality appraisal of included research studies the literature highlighted some weaknesses in terms of study design and transparency in reporting. Therefore, future research should seek to fully report methods and use a quality checklist.

Conclusions

This study is the first to synthesise literature that explores the impact of disinvestment on alcohol and drug treatment and outcomes and identifies opportunities to further advance the body of evidence. In England, disinvestment from alcohol and drug treatment services has occurred in parallel to reduced public sector funding, declines in treatment outcomes and increases in alcohol-related hospital admissions and alcohol and drug-related deaths. However, the quantitative relationship between disinvestment from alcohol and drug treatment and related outcomes remains unexamined. Since the Health and Social Care Act 2012, substantial changes to the way in which services are commissioned and provided were reported. There was evidence of large variation in disinvestment across England with concerns about the potential for widening health inequalities. Given the known link between effective alcohol and drug treatment and reduced health and social harms, understanding the impact of disinvestment remains important to policy makers internationally. Particularly

when disinvestment might result in increased pressure on more costly publicly funded services.

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Supplementary information for systematic review

Search strategy (PROSPERO, CRD4202018795)

This review addressed the following questions:

i. What is the impact of disinvestment from publicly funded alcohol and drug treatment for adults in England?

ii. What is the impact of disinvestment from publicly funded alcohol and drug treatment for adults in other Organisation for Economic Co-operation and Development (OECD) countries?

iii. What can we learn from the impact of disinvestment from other publicly funded public health programmes, specifically smoking cessation and sexual health programmes, in England and other OECD countries?

Search terms

Following an initial scoping search, a protocol was developed including a search strategy and review methodology to be followed.

Table 3: Search terms used in systematic review

Search no.	Disinvestment	Conjunction	Substance misuse service	Conjunction	Impact
1	Disinvest* OR Decommission* OR 'cuts to' OR slash* OR 'budget reduc*' OR 'reduc* budget' OR cutback OR divest*	AND	opioid substitution treatment' OR 'alcohol and drug service' OR 'drug* service' OR 'alcohol service' OR 'addiction service' OR 'addiction treatment' OR 'substance abuse treatment' OR 'inpatient detoxification' OR 'residential rehabilitation' OR 'recovery service' OR 'harm reduction' OR 'methadone treatment' OR 'methadone substitution' OR 'psychosocial intervention' OR 'drug treatment cent*' OR 'alcohol treatment cent*' OR 'substance abuse treatment cent*' OR 'addiction treatment cent*'	AND	outcome OR impact OR effect OR result OR evaluat*
2	<i>As above</i>	AND	'smoking cessation'	AND	<i>As above</i>
3	<i>As above</i>	AND	'sexual health'	AND	<i>As above</i>
4	<i>As above</i>	AND	'Public Health'	AND	<i>As above</i>
5	<i>As above</i>	AND	'local authority' OR 'local government'	AND	<i>As above</i>

No date restrictions to be applied and duplicate papers to be removed using Ovid with the field preference, 'Has Abstract.' Inclusion and exclusion criteria have been developed to support the filtering of identified literature (table 4 below). To maximise opportunity to source relevant papers, we have decided to include papers from all Organisation for Economic Co-operation

and Development (OECD) countries, unless it relates to wholly privately-funded public health services. In addition, other similar public health services for adults, that receive the highest proportion of public health funding in England (each receiving £100million investment annually), are also to be included. These are sexual health and smoking cessation services. This is to expand the evidence base through identification of research where the findings might provide insight into the likely impact of disinvestment from substance use treatment services. Due to the differing nature in the way these services have been commissioned over time, the search was not restricted to public health as the funding body.

Table 4: Overview of search strategy

Review components	Details
Dates	No restrictions
Reporting	English language
Topic areas	<p>The impact of disinvestment on:</p> <ul style="list-style-type: none"> • Substance misuse treatment; or • Public health; or • Local authority; or • Smoking cessation; or • Sexual health. <p><i>Please see table above (Table 3) for the full list of search terms and synonyms.</i></p>
Other inclusion criteria	<p>Topics including:</p> <ul style="list-style-type: none"> • Financial disinvestment in adult drug and/or alcohol treatment (with or without specific reference to the impact of financial disinvestment on adult drug and/or alcohol treatment or smoking cessation services or sexual health services). <p>Other inclusion criteria:</p> <ul style="list-style-type: none"> • Journal publications and grey literature pertaining to the review questions • Peer-reviewed and grey literature pertaining to the search criteria, including both primary and secondary qualitative and quantitative studies • Documents will be eligible for inclusion for question (i) if they examine a perceived or measured impact of disinvestment from alcohol and drug treatment services for adults in England • Literature will be eligible for inclusion for question (ii) if it examines a perceived or measured impact of disinvestment from alcohol and drug treatment services for adults in OECD countries outside England • Literature will be eligible for inclusion for question (iii) if it includes a perceived or measured impact of disinvestment from sexual health and smoking cessation services for adults in England or in other OECD countries • This includes journal published opinion pieces and grey literature from credible sources.
Exclusion criteria	<p>Topics including:</p> <ul style="list-style-type: none"> • Approach to disinvestment, including the use of e.g. cost-analysis tools to support disinvestment decisions • Effectiveness of interventions (not relating to disinvestment)

	<ul style="list-style-type: none"> • Acute healthcare services • Privately funded healthcare. <p>Other exclusion criteria:</p> <ul style="list-style-type: none"> • Guidance and policy documents which do not describe the level of, or impact of, disinvestment • Non-OECD countries • Full research paper not available.
Databases (dates) and libraries searched	EMBASE (1980 to June 2020), Medline (1946 to June 2020), CINAHL (1981 to June 2020). Grey literature: Handsearch, www.evidence.nhs.uk , www.scholar.google.com
Main outcomes	The described or measured impact of disinvestment from adult alcohol and drug treatment in England. Scoping work indicates that the existing evidence in relation to this topic is limited. As such, this review will include any described impact relating to disinvestment that has been captured via quantitative or qualitative analysis. It would include quantifiable outcomes, such as reductions in the number of people accessing treatment, numbers completing treatment, changes to the how services are commissioned or broader impacts, such as changes in related hospital admissions or deaths. In addition, perceived outcomes, such as stakeholder views as to how disinvestment has impacted on morale, the quality, or availability of treatment services.
Additional outcomes	The described or measured impact of disinvestment from adult alcohol and drug treatment programmes in other OECD countries. The described or measured impact of disinvestment from sexual health and smoking cessation programmes.
Data extraction	Studies will be screened by title and abstract and then by full text against the inclusion and exclusion criteria. Double screening will be undertaken for a random 10% sample of the papers at full text stage. Discrepancies and uncertainties will be resolved through discussion in review team meetings. Where available within the literature, data to be extracted will include: title, authors, year of publication, setting of study, type of paper, study aims and/or research questions, data collection methods, sample size, analytic approach, details of affected service types, timing and quantification of disinvestment, relevant contextual information related to the disinvestment (including pre-disinvestment conditions), key outcomes, described impact.
Risk of bias	Two researchers will be involved directly in the search and quality assessment of papers. The first will undertake the full search, based upon the search criteria, then all identified papers will be shared with a second reviewer who will undertake a secondary check that identified papers meet the search criteria to aid quality assurance. Disagreements in terms of included papers and quality assessment will be referred to a third reviewer if they cannot be resolved. All papers that meet the search criteria will be included. Due to the heterogeneity of the existing research, each paper included within the review will be quality assessed using the most appropriate, or closely related tool available via the Critical Appraisal Skills Programme (CASP), the Joanna Briggs Institute (JBI), and the Authority Accuracy Coverage Objectivity Date Significance (AACODS) checklist.

Tables 5 – 8: Quality appraisals of reviewed literature

CASP^a Systematic Review Quality Appraisal Tool: Literature reviews										
Paper and year published	Q1 Did the review address a clearly focused question?	Q2 Did the authors look for the right type of papers?	Q3 Do you think all the important, relevant studies were included?	Q4 Did the review's authors do enough to assess quality of the included studies?	Q5 If the results of the review have been combined, was it reasonable to do so?	Q6 What are the overall results of the review?	Q7 How precise are the results?	Q8 Can the results be applied to the local population?	Q9 Were all important outcomes considered?	Q10 Are the benefits worth the harms and costs?
Freudenber g et al. 2006	No	Can't tell	Can't tell	No	Can't tell	The impact of a fiscal crisis and the resulting cots of a subsequent syndemic of Tuberculosis, HIV, and homicide	Estimates	No	Yes	N/A
McFarlane 1993	No	Yes	Can't tell	No	Yes	The negative impact of Reagan policies on public health services	Estimates	No	Yes	No

^a Critical Appraisal Skills Programme

JBP^a Cross-Sectional Quality Appraisal Tool: Primary research papers								
Paper and year published	Q1 Were the criteria for inclusion in the sample clearly defined?	Q2 Were the study subjects and the setting described in detail?	Q3 Was the exposure measured in a valid and reliable way?	Q4 Were objective, standard criteria used for the measurement of the condition?	Q5 Were confounding factors identified?	Q6 Were strategies to deal with confounding factors stated?	Q7 Were the outcomes measured in a valid and reliable way?	Q8 Was appropriate statistical analysis used?
Anderson et al. 2017 Chang et al. 2010	Yes Yes	Yes Yes	Yes Yes	No Unclear	N/A No	N/A N/A	Yes Yes	Yes Yes

^a Joanne Briggs Institute

JBI^a Text and Opinion Pieces Quality Appraisal Tool – journal published opinion pieces							
Paper and year published	Q1 Is the source of the opinion clearly identified?	Q2 Does the source of opinion have standing in the field of expertise?	Q3 Are the interests of the relevant population the central focus of the opinion?	Q4 Is the stated position the result of an analytical process, and is there logic in the opinion expressed?	Q5 Is there reference to the extant literature?	Q6 Is any incongruence with the literature/sources logically defended?	Q7 Is the opinion supported by peers?
Daube	Yes	Yes	Yes	Yes	No	No	Unclear
Iaccobucci 2016	Yes	No	Yes	No	No	No	Yes
Iacobucci 2014	Yes	No	Yes	No	No	No	Yes
Mohammadi 2016	Yes	No	Yes	Yes	No	No	Yes
White 2015	Yes	No	Yes	No	No	No	Yes

^a Joanne Briggs Institute

AACODS^a Checklist for grey literature						
Paper and year published	Authority	Accuracy	Coverage^b	Objectivity	Date	Significance
Adfam 2017	Yes	Yes	?	Yes	Yes	Yes
Advisory Council on the Misuse of Drugs 2017	Yes	Yes	Yes	Yes	Yes	Yes
Alcohol Concern 2013	Yes	Yes	No	Yes	Yes	Yes
Alcohol Concern 2018	Yes	Yes	No	?	Yes	Yes
Blenheim	Yes	No	No	?	Yes	?
British Medical Association 2018	Yes	No	No	?	Yes	Yes
Cook 2017	Yes	Yes	Yes	Yes	Yes	Yes
Davies et al. 2016	Yes	Yes	Yes	Yes	Yes	Yes
Drink and Drug News 2018	?	No	No	No	Yes	No
Robertson et al., 2017	Yes	Yes	Yes	Yes	Yes	Yes

^a Authority Accuracy Coverage Objectivity Date Significance
^b This refers to whether the literature explicitly states its focus (population, questions) and therefore acknowledges its limitation

3. Methodology

3.1. Study aim and objectives

This observational study, using a multimethod approach, was designed to understand the impact of disinvestment on alcohol and drug treatment services in England between 2013/14 and 2018/19. The objectives, study phases and associated research questions are summarised in Box 2:

Research aim:	
To advance the literature examining the impact of disinvestment on alcohol and drug treatment services in England	
Objective one:	
Examine the relationship between public health (dis)investment in adult alcohol and drug treatment services in England with treatment outcomes, alcohol-specific hospital admissions and alcohol and drug-related mortality.	
<p>Phase One (summer 2018): Quantitative</p> <p>Multi-level time series analysis of local authority Public Health Grant investment, NDTMS treatment data and PHE admissions and mortality data</p>	<ol style="list-style-type: none"> 1. What has been the change in investment in alcohol and drug treatment services? 2. What is the relationship between changes in investment and: <ol style="list-style-type: none"> a. the number of adults accessing treatment? b. the number of adults new to accessing treatment? c. the number of adults successfully completing treatment? d. the number of adults successfully completing treatment and not returning for six months? 3. What is the relationship between (dis)investment in alcohol treatment services and: <ol style="list-style-type: none"> a. alcohol-specific hospital admissions? b. alcohol-specific mortality? 4. What is the relationship between (dis)investment in drug treatment and drug-related deaths between 2013/14 and 2018/19?
Objective two:	
Develop an in-depth understanding of commissioners' experiences and perspectives of the impact of changes in investment in adult alcohol and drug treatment services in England.	
<p>Phase Two (summer 2019): Qualitative</p> <p>Semi-structured telephone interviews with a purposive sample of commissioners</p>	<ol style="list-style-type: none"> 5. What are commissioners' experiences of: <ol style="list-style-type: none"> a. (dis)investment in services locally? b. changes in the commissioning and provision of services? 6. What do commissioners perceive as the main drivers of (dis)investment and changes to service provision? 7. What other aspects do commissioners perceive as having influenced treatment engagement and effectiveness?
Objective three:	
Examine the extent to which the trends, experiences, and perceptions from phases one and two are shared by a larger sample of commissioners.	
<p>Phase Three (spring 2020): Quantitative</p> <p>Cross-sectional survey of England's commissioners</p>	<ol style="list-style-type: none"> 8. What are commissioners' experiences of: <ol style="list-style-type: none"> a. (dis)investment in services locally? b. changes in the commissioning and provision of services? 9. What do commissioners perceive as the main drivers of (dis)investment and changes to service provision? 10. What other aspects do commissioners perceive as having influenced treatment engagement and effectiveness?

Box 2: Study design linking the research aim, objectives, and research questions

3.2. Epistemology and the mixed methods approach

The epistemological position underlying this research is critical realism. Critical realism is underpinned by the ontological assumptions that when observing the impact of disinvestment on alcohol and drug treatment services, there are three domains to understand reality (192–194). This includes the real, the actual and the empirical (193,195,196). Applying Fairclough et al.'s (195) explanation to this study, the 'real' refers to treatment services, people with substance use disorders, commissioners, treatment budgets, local authorities and the roles and influence (or power) they hold. The 'actual' refers to the effects of this power when activated, so in this case, could refer to decisions about investment, contract, or service provision. The 'empirical' refers to events experienced within the real and the actual, for example people's perceptions and experiences of treatment service commissioning and provision. These three domains, from a critical realist stance, can only be understood "*through a combination of empirical investigation and theory construction.... to develop deeper levels of explanation and understanding*" (p69 (197)).

A critical realist approach guided my study design; adopting a design I felt best suited to meet my research aim and objectives, via methods appropriate to the research setting and participants. There are many factors influencing decisions, actions and outcomes associated with local authority (dis)investment in services and their effectiveness (198,199). I therefore designed a three-phase mixed methods study that would enable me to examine and explore the relationship between disinvestment from alcohol and drug treatment on more than one level (Figure 3). First, I used quantitative methods to examine relationships within the *empirical* domain. Second, I used a complementary qualitative method to provide rich and valuable insight into the context to better understand observed relationships (200). Third, I used a survey to further test how widespread those experiences and perceptions were amongst a larger sample of commissioners. The second two phases provide insight into the *real* and the *actual* domains.

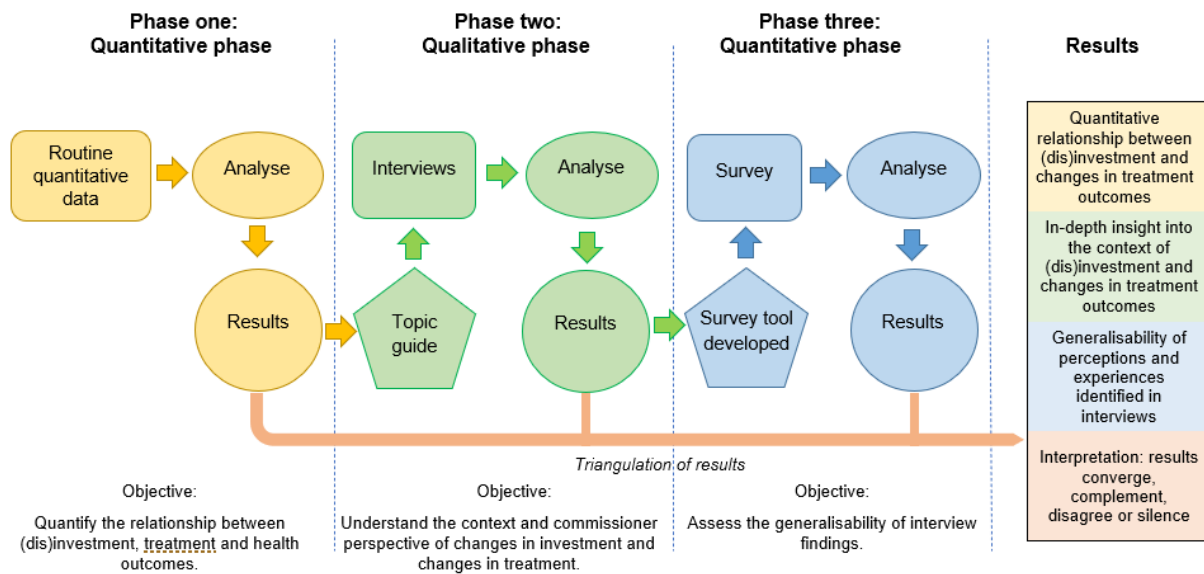


Figure 3: Diagrammatic overview of study design

Each phase of this sequential mixed methods study was designed to make a novel contribution to science and I combined complementary methods to generate a range of evidence for analyses to comprehensively meet my research objectives within the environment of commissioning of health services (201–203). Mixed methods are commonly used in health research (204–207) and when studying the commissioning of health services (204,208–210). A multiphase mixed methods approach in this study was used to “simultaneously address a range of confirmatory and exploratory questions... provide better (stronger) inferences... and provide greater opportunity for a greater assortment of divergent views” (p33) (199). Figure 3 shows, this study was designed to incorporate three main points of integration within the methods (211–214). The first two points of interface were the sequential exploratory and explanatory phases, designed so that findings of each phase would be used to inform the next phase, either in terms of data collection tools or sampling strategy. The final point was the integration of data gathered from all three phases. Additional rationale for the selection of each method and details about points of interface are further detailed within each phase (3.4 to 3.6) below.

3.3. Researcher position

Critical realism, among other paradigms, require a researcher to practice reflexivity (215,216). Reflexivity can include researcher’s thoughtfulness about the implications of methods chosen, acknowledging any values or bias held and demonstrating an understanding of the potential impact of these on the research (203). Therefore, it was important that I acknowledged and stated my position at the start of this research, to provide transparency of my own professional experiences and how these may have influenced my position as a researcher.

Prior to commencing my PhD, I worked within local government for over 13 years, primarily leading strategy and commissioning to improve community safety and reduce harm from substance use. In 2009 I developed a business case for additional investment in alcohol treatment services within the local authority I was based. The additional investment was secured, and a procurement exercise took place to expand the range and quantity of support services for people with alcohol use disorders. This resulted in a substantial increase in the numbers of adults accessing support for alcohol dependence, in addition to an improved diversity in people using the services, including an increase in age range and more women. Within three years (circa. 2012/13), local authorities started to face budget pressures, and our commissioning team faced difficult decisions to meet the savings required. Over the next few years, large changes occurred, including (amongst others) the integration of the alcohol and drug community services, a substantial reduction in residential rehabilitation, changes to payment schedules and the introduction of an abstinence-based community recovery service.⁸ Initially, lower-risk savings were achieved but as budget pressures continued services struggled to provide the required level of support and the number of people accessing support started to decline. Despite overall disinvestment in treatment services, some of the budget (less than 10%) invested in the community alcohol and drug treatment service budget was re-invested to fund a low-cost recovery service. This was informed by a local needs assessment which concluded that recovery was neither visible nor achievable in the city despite the treatment service being commissioned to provide recovery support. This change resulted in increased numbers of people known to have recovered from alcohol and drug dependence, creating a recovery community – an example of a newly commissioned support service during a time of relative financial austerity.

At the outset of this research I was, and have remained, committed to generating evidence of the impact of public health disinvestment from alcohol and drug treatment services in England and to identify examples of perceived good practice in supporting people to access treatment for, and move on successfully from, substance use disorders. I was open to finding no relationship between disinvestment and outcomes or a positive or negative one. My own experience includes a creative use of resources in times of budget restraint, so I was interested in these types of arguably more positive changes. I have seen my commissioning experiences as both an advantage and disadvantage in this research. I have a good understanding of the context and complexity of commissioning and service provision in England. However, it was important I took steps to guard against assuming knowledge in my

⁸ Community-based support to people who are in recovery from drug and / or alcohol dependence. The aim of the service is to help people rebuild their lives post-dependence, in line with a recommendation in 'Building Assets in Recovery' (288) and to support maintained recovery. It is a seven day per week service with a fixed site in the city centre.

research by, for example, ensuring I asked non-leading questions during interviews and the survey. Throughout study design processes, data collection and analyses, I discussed all plans and sought advice from my supervisors to achieve impartiality.

3.4. Phase One design

Phase One was designed to examine change over time and to quantify relationships. This phase was approached systematically, following procedural and evaluative steps as outlined by Johnston (217). I hypothesised that higher levels of disinvestment from alcohol and drug treatment services in an area would be associated with:

- i. fewer people accessing treatment (primary outcome);
- ii. fewer people successfully completing treatment (primary outcome);
- iii. an increase in alcohol-specific hospital admissions, for alcohol treatment investment (secondary outcome); and
- iv. an increase in alcohol-specific mortality (for alcohol treatment investment) and drug-related deaths (for drug treatment investment) (secondary outcomes).

To meet the objectives of this phase, retrospective data, with multiple time points, was required. In England there is a breadth of routine data available which enabled secondary data analysis to generate new knowledge regarding the relationship between (dis)investment, treatment numbers and broader harm.

3.4.1. Units of analysis and period of study

The setting of this research is England's upper tier local authorities. At the start of this research, there were 152 upper tier local authorities in England each serving a mean population of 370,710 (SD 278,936) (218). This includes 26 county councils, 32 London boroughs, 36 metropolitan boroughs, 55 unitary local authorities and 2 sui generis authorities (city of London and Isles of Scilly). Phase One examined investment, treatment and broader outcomes at a local authority level, and relationships across all local authorities. In this phase, I sought datasets to examine the impact of changes in investment for as long a time period available. The years 2013/14 to 2018/19 were selected as it was in 2013/14 that local authorities first became responsible for the commissioning of alcohol and drug treatment provision and that public expenditure on treatment provision was published.

3.4.2. Variables

The variables used, the data source and examples of studies which have used this data are listed in Table 3.

Table 3: Overview of variables used in Phase One

Data source	Variables used	Time period data available	Examples of other studies using these variables
Ministry of Housing and Local Government (161)	Public health grant spend on: <ul style="list-style-type: none"> Adult alcohol prevention Adult alcohol treatment Adult drug prevention Adult drug treatment 	Each financial year between 01.04.13 and 31.03.19	Martin et al. (219) Arnold et al. (220) Adfam (221) ACMD (222)
NDTMS (223)	The following treatment variables, split by OCU, alcohol, non-opiates, and alcohol: <ul style="list-style-type: none"> Numbers in treatment Numbers new to treatment Numbers successfully completing treatment Numbers successfully completing treatment and not returning within six months 	Each financial year between 01.04.13 and 31.03.19	Marsden et al. (224) Willey et al. (10) White et al. (69) Marsden et al. (68)
Public health England Fingertips	<ul style="list-style-type: none"> Alcohol-specific hospital admissions (where the primary or secondary diagnosis is wholly attributable to alcohol) (47) Alcohol-specific mortality where the cause of death is wholly attributable to alcohol (225) 	Each financial year between 01.04.13 and 31.03.19 Two-year rates per 100,000 between 01.04.11-31.03.13 and 01.04.14-31.03.16	Herbert et al. (226) Alcohol Concern (149) British Medical Association (177)
Office for National Statistics	<ul style="list-style-type: none"> Drug-related deaths (190) 	Two-year rates per 100,000 between 01.04.11-31.03.13 and 01.04.15-31.03.17	Pierce et al. (28) Herbert et al. (226) White et al. (69)

Changes in the number of adults in treatment (including those new to treatment) were used as indicators of change in the *accessibility* (or availability) and *penetration* (or reach) of treatment. Successful completions (including those who do not return to treatment within six months) were used to examine changes in the number of people achieving their treatment goals, including abstinence, indicative of *effective* treatment; the latter is currently the national proxy indicator for recovery in England.

All datasets were matched by local authority name (and associated estimated adult population size (218)), with due care and attention given to anomalies in the way different datasets name local authorities, and to adapt to changes in the local authorities over the six-year period. For example, during the period of the study, Bournemouth and Poole (including Christchurch) formed a single unitary authority, therefore leaving 151 upper tier local authorities. All datasets were compiled and matched in IBM SPSS. By focussing on local authorities as units of analysis, examination of geographic and socioeconomic differences was possible.

3.4.3. Statistical analysis

Paired *t*-tests were used to examine the change in each variable between the first and last year of the study period. The main analysis used multi-level linear mixed effects (LME) models.

LME models are flexible models that enable regression using longitudinal data with continuous dependent variables (227). I adopted this statistical model to quantify relationships between (dis)investment, treatment, hospital, and mortality data. This decision followed discussion with fellow researchers in the department and an appraisal of options. LME modelling was chosen as the most appropriate approach for several reasons. It examines relationships (as opposed to causal factors) between continuous variables which are pertinent to this phase of the study. It is an extension of more basic linear models but maximises the use of all available data and allows control for random and fixed effects. These extra controls are particularly useful in this study as they account for non-independence within the data, for example within each local authority or between all local authorities. This aids exploration of variation between (dis)investment and changes in treatment numbers at local authority level over a six-year period and it allows us to understand the overall relationship. More details of the modelling are found within the journal paper in chapter four (Phase One paper).

During Phase One, I completed additional analyses to further explore whether areas of highest need were experiencing greater budget cuts and related declines, in line with evidence from the systematic review. Changes in investment and all treatment variables were examined by quintiles of deprivation, ranking each upper-tier local authority as per Indices of Multiple Deprivation (IMD) (228), and split into five. Differences between the groups were examined using one-way ANOVA. A full data management plan can be found in Appendix One.

3.4.4. Reliability and validity

Each data set provides specific data relevant to the research objectives and is representative of all publicly funded treatment for adults with substance use disorders in England. Local authorities are statutorily obligated to submit accurate expenditure data to the Department for Communities and Local Government, which in turn is used to inform cross-government financial administration planning, including the calculation of future financial settlements (229). In terms of treatment, hospital and mortality data, the datasets undergo extensive data cleaning processes, encompass large populations (230), are produced via Government departments and are used regularly in similar research (Table 3). Within my paper (Phase One paper), I reflect on actions completed to counteract some of the potential issues where possible and am transparent about the methods used to enhance the reproducibility.

The process of linking data sets is well established in secondary data analysis and in this study, the approach of linking data was exact – to match available routine administrative data on a local authority footprint (231). The main challenges of this phase related to matching data sets and gaining assurance that annual updates of routine administrative data were consistent with previous years. Therefore, multiple data checks were undertaken, and contact was made

with the relevant data controllers to check any concerns I had. The data to support this phase was first compiled in 2018, and then updated on the release of additional years of data. Missing data was identified and labelled as null values.

3.5. Phase Two design

This phase - using semi-structured telephone interviews - was designed to gain rich, in-depth understanding (232,233) of commissioners' experiences, perspectives and insight into the wider context explaining and contributing to the relationships identified in Phase One. The outcomes of any type of service cannot be explained solely via the level of financial investment it receives (80,121,122), nor can the analysis completed in Phase One reveal the full picture. Within the context of alcohol and drug treatment, there are many factors which might influence the impact of (dis)investment. I chose a qualitative method as the best way to identify the less tangible (or hidden) factors. For example, decision-making processes influencing changes in commissioning and service provision, or perspectives regarding changes to treatment effectiveness (234).

As treatment and substance use related harm data has shown geographical variation (68,235), and variations in organisational structures and treatment models can be a predictor of these differences (155), interviews were appropriate to understand detail and variety of experiences. Such methods ensure that important aspects do not go unnoticed (234). The results from Phase One informed the sampling strategy and the topic guide to support this phase.

3.5.1. Target population and sample

Central to this research are the processes of investment and subsequent changes to service engagement and effectiveness. Therefore Phase Two focusses on a purposive sample of commissioners who, as introduced earlier, are "information-rich" (p273 (236)). In this case, commissioners are *important stakeholders* who have a responsibility for decisions relating to service or change implementation (237).

Due to differences in trends identified in Phase One, a purposive sampling strategy was adopted to maximise variation in terms of represented quintiles of deprivation (supplementary information in Phase Two paper) and experiences by sampling from four groups (Figure 4):

Treatment numbers ⁹ (combined)	Increased	Group 2 (28/151)	Group 4 (9/151)
	Decreased	Group 1 (75/151)	Group 3 (17/151)
		<i>Decreased</i>	<i>Increased</i>

Investment (alcohol and drug treatment combined)

Figure 4: How local authorities were grouped before purposive sampling

The remaining authorities (n.22) did not qualify for inclusion in each of the four groups due to not having a consistent change in treatment access and outcomes, for example, they may have experienced declines in treatment access but increases in successful completions. Further details about study recruitment can be found in the journal paper (Phase One paper).

Twenty local authority-based commissioners, who provide advice to support investment decisions and lead changes to service provision, were invited to participate in a research interview by email. Interested parties were emailed a participant information sheet (Appendix Two) and consent form (Appendix Three) before the interview, and verbal consent was secured at the start of each recorded interview. A week prior to interview, participants were given a written report I had produced from initial Phase One analysis, summarising national changes in investment in treatment services, treatment outcomes, alcohol-specific hospital admissions, alcohol-specific mortality and drug-related deaths (Appendix Four). This was to contextualise the research and allow participants opportunity to reflect on how their local authority might compare to the national average.

To secure the confidence of potential participants and build a rapport, several important steps were followed throughout recruitment to interview completion to pre-empt any concerns regarding participation and legitimacy of the research. I gave several options for the date and time of interview to maximise opportunity for participation.

3.5.2. Data collection

Interviews can be carried out face-to-face or via telephone (or video technology) but telephone interviews were adopted as they provide qualitative insight (238) whilst increasing the reach of data collection (239). Due to the geographic spread of commissioners, this made it a more efficient use resource (203). The use of video call interviews research was less established

⁹ Consistent increase / decrease in treatment access and successful completions and successful completions (and not return within six months)

when the study was designed (240), however one of the advantages of the interviews being entirely audio was the ability to take notes without distracting the participant. Focus groups may have allowed opportunity for the real-time exchange of experiences but the one-to-one nature of this method allowed commissioners dedicated time (and interviewer attention) to offer unique insight to their local authority and professional experiences. When compared with face-to-face interviews, telephone interviews may help to reduce response bias, allow participants to feel more relaxed (241), and more able to share information regarding policy issues which could be deemed as sensitive (242,243). As such they are popular in health research and used effectively with public health professionals (241,244,245).

Semi-structured interviews were chosen to explore commissioner experiences and views whilst collecting open-ended data (246). To assist with the interviews, a topic guide was developed containing ten open questions (Appendix Five). The questions were designed to capture more detail about the systems and activity within which the commissioning and provision of alcohol and drug treatment services exist; expanding on themes identified within the systematic review and identifying other factors commissioners felt had contributed to trends identified during Phase One. For example, the systematic review highlighted some concerns about the move to integrated service provision, and Phase One analysis revealed some differences between changes alcohol and drug treatment numbers in relation to (dis)investment. Therefore, a question was included to seek clarity on the way treatment was provided locally, including a specific enquiry as to whether services were integrated. This would help to ascertain whether there was a theme about the effects of service integration.

Questions were intentionally kept neutral (i.e. not worded to assume a negative effect or downward trend) and open, with additional prompt questions to guide further exploration of detail dependent on responses, and to support the uncovering of hidden or emerging themes (234,246). The first interview was treated as an internal pilot to ensure that the topic guide was suitable (96). Pilot interviews are widely used in qualitative research to allow researchers to ensure that the questions provide appropriate and sufficient information in relation to the research questions (247). In my study, the pilot participant was recruited as part of this phase's sampling method, applying all processes detailed within my ethics application. Following the interview, I listened to the audio recording to ensure that the questions were suitably open and enabled the participant to speak freely about factors they perceived as particularly important (242). Due to the data and detail generated, I concluded that the topic guide was effective and that the interview produced beneficial results and was therefore included within the final analysis.

3.5.3. Data analysis

The fourteen telephone interviews were audio recorded, transcribed verbatim and NVivo software was used to support analysis. Pseudonyms were adopted to protect the anonymity and confidentiality of participants and their respective local authorities. A grounded theory approach was adopted, including familiarisation with the transcripts, initial coding, and the development of themes and sub themes (248). The sample size was influenced by inductive thematic saturation and data saturation (249), following a non-linear approach to sampling, interviews and analysis (203). A full data management plan can be found in Appendix Six.

3.5.4. Establishing credibility

Various steps were undertaken to enhance the credibility of this phase, to address issues of truth, applicability, consistency and neutrality (250,251). The criteria used to inform purposive sampling of participants enabled an exploration of experiences related to – according to routine data – large variation in changes in investment and treatment outcomes. Audio recording, verbatim transcribing, and analysis in NVivo provided opportunity to repeatedly revisit the data and ensure the developing themes were representative of participants' experiences. Within the results (Phase Two paper), verbatim quotes are used, enhancing transparency in reporting and allowing readers to make their own decisions about whether the themes accurately reflect the data (250). To enhance consistency and provide assurances of neutrality, a subset of three transcripts were independently coded by another researcher, who had no prior knowledge of the draft themes. After her coding was complete, coding, sub-themes and themes were discussed and agreed.

3.6. Phase Three design

This phase was an online cross-sectional survey of England's alcohol and drug treatment commissioners, based within local authorities. Its sequencing in relation to previous phases meant that the survey could be tailored specifically to assess how applicable the experiences identified in Phase Two were within a larger sample of commissioners. The themes and subthemes identified during thematic analysis guided the content of the survey tool, which was designed to quantify commissioner's experiences. This design also enabled the flexibility to further explore any unanswered questions from Phase Two.

3.6.1. Target population and sample

Commissioners from 150 of the 151 local authorities in England were invited after identifying email addresses via internet searches, contact via Public Health England regional substance use leads and contact with local authorities. A synchronised email was sent from my University email address at the same time as the survey launch, avoiding potential issues of it being perceived as junk or spam mail (252). Details of data security and governance, in addition to

issues pertaining to confidentiality (Appendix Seven) and consent (Appendix Eight) were included within a participant information sheet, attached to the survey launch invitation email. To ensure that the person invited was the commissioner, professional local authority (.gov.uk) email addresses were sought in advance of the survey launch.

3.6.2. Data collection

Cross-sectional studies allow us to gain information from large samples of a population of interest (253) in a timely and convenient method (252). A survey was chosen to enable the rate of occurrence of certain experiences among commissioners.

An online survey allowed me to incorporate a diversity of question types and secure timely communication, including follow-up, with participants (252). The development of a tailor-made survey tool provided opportunity to explore several descriptive and analytical elements using the results and was informed by the themes and subthemes generated in Phase Three. The 33-item survey was conducted online using Qualtrics (254) and comprised a mixture of multiple response closed questions, Likert scales and open questions with freetext responses (Supplementary information in Phase Three paper). Using this platform also enabled the options of *go to capabilities*, to ensure participants could avoid being asked irrelevant questions and to streamline the experience (252). Likert scales included options such as *neither agree nor disagree* and *does not apply* to enable participants to opt out where available options were not relevant.

This diversity in commissioner experiences shared in Phase Two influenced the provision of a range of question response options, ensuring equal opportunity to examine perceived positive developments and challenges presented to them, relative to described changes in investment. Therefore, the survey contained three main sections: i) Changes in investment; ii) Procurement and commissioning activity; and iii) Service provision. Within each section, options within the Likert scales and multiple choice questions were directly linked to evidence from the systematic review and the interviews. To enable further exploration of the effect of experiences identified at interview, commissioners were invited to “rate” the influence of difference aspects, with response options typically provided on a positive-to-challenging, and strongly agree-to strongly disagree continuum. Appendix Nine contains a table which outlines how the questions contained within the survey relate to the original objectives of this phase, and a description of the data that was designed to be generated.

3.6.3. Data analysis

Quantitative analysis was undertaken using IBM SPSS Version 26 to produce descriptive statistics, tables, and illustrative graphs. As the survey was designed to examine whether the experiences of interviewed commissioners were widely shared among a larger sample of

commissioners, many of the question responses were converted into percentages. To assess response bias, independent *t*-tests were carried out to quantify differences between respondents and non-respondents in terms of population size, reported changes in investment, treatment engagement and successful completions between 2013/14 and 2018/19. Paired *t*-tests examined reported changes between 2013/14 and 2018/19. Freetext answers to open questions were subject to content analysis and themes were identified.

3.6.4. Reliability and validity

Steps were undertaken during the planning of this phase to ensure appropriate participants were identified. This included identifying and confirming appropriate contact names and email addresses, and further compulsory confirmation of the person's role as commissioner at the start of the survey.

The survey was piloted with two public health professionals to test its usability and some amendments were made accordingly (199). This enabled me to identify any design issues and trial the analysis of data to refine the analysis plan (255), in preparation for the potentially large quantities of data to be collected. To enhance the quality assurance of this phase (256) I include detail of the criteria for inclusion, the sample, exposure measurement, criteria for measurement, confounding factors and outcome measurement.

Prior to commencing statistical analysis of the data generated via survey responses, I conducted data screening exercises. Missing data was identified and labelled as null values, and certain variables were recoded to assist analysis. Furthermore, to understand how representative of the commissioner sample responses were, independent *t*-tests were undertaken to compare respondent versus non-respondents for key variables. These included changes in investment, changes in treatment variables and population size, as per Phase One.

3.7. Following Good Reporting of A Mixed Method Study (GRAMMS) guidance

I followed the 'Good Reporting of a Mixed Methods Study (GRAMMS)' guidance to support transparency about each method and their integration (Table 4) (255,256,257):

Table 4: GRAMMS table

Quality measure	Location within thesis
1. Description of the justification for using a mixed methods approach	3.2 (p54)
2. Description of the design (purpose, priority, and sequence of methods)	3.1 - 3.6 (p53 - 63)
3. Description of each method (sampling, data collection and analysis)	3.1 - 3.6 (p53 - 63) Phase One paper (p69) Phase Two paper (p88) Phase Three paper (p105)
4. Description of where and how integration has occurred	3.1 - 3.6 (p53 - 63)
5. Description of any limitations of the methods (apart and together)	7.3.2 (p155)
6. Describe any insights gained from the mixing or integrating methods	7.1.5. (p147)

By looking at the findings from each phase together, the triangulated results could be interpreted to see if they converge, complement, disagree or silence (214,233,258). Triangulation of results from mixed methods studies enables a researcher to observe phenomena from different perspectives (258). Through exploring how the results compare, it also enabled the facilitation of meta-inferences which run through the quantitative and qualitative methods (233,259).

3.8. Ethics approval processes

Prior to the commencement of each of the three phases, ethics applications were submitted, and approved, via the University of Sheffield's School of Health and Related Research's online ethics system and panel (Appendix Ten to Appendix Sixteen). Any required changes were approved via ethics application amendments, including the inclusion of additional years of data to support Phase One, and the application to have a second launch of the survey, following restrictions relating to the 2020 COVID-19 pandemic.

3.9. Patient and Public Engagement and Involvement

As part of my study design, I built in opportunities to engage relevant stakeholders, including people with lived experience of substance use disorders, treatment providers, policy officers and commissioners. Prior to commencing my research, I attended the Sheffield Addiction Recovery Research Panel. This is a group of people with lived experience of substance use disorders which was established to shape alcohol and drug related research. I developed an overview of my research (Appendix Eighteen), to share with attendees prior to my attendance in January 2019. I presented my research proposal and sought feedback from members on their views about the research and the potential ways they could contribute to the ongoing design as results emerged. Panel members welcomed the research but had some concerns

regarding response bias, particularly where commissioners may not wish to share unfavourable or negative experiences. To help encourage relevant dialogue, I included a “Research Summary” sheet (Appendix Four), so that commissioners would see the national trends, and ensured all interview questions were kept open and neutral (255). I also did not reveal my professional background prior to interviews as to avoid interviewer bias.

3.10. Chapter conclusion

Having provided the detail of the approach taken in this study, the next (results) section comprises three manuscripts prepared and submitted for journal publication. Additional integrative analysis is presented within the discussion chapter.

Part Two: Results

4. Phase One paper

ORIGINAL ARTICLE [original paper published in Drug and Alcohol Review]

Is disinvestment from alcohol and drug treatment services associated with treatment access, completions and related harm? An analysis of English expenditure and outcomes data.

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ABSTRACT:

Introduction: The positive impact of substance use treatment is well-evidenced but there has been substantial disinvestment from publicly funded treatment services in England since 2013/2014. This paper examines whether this disinvestment from adult alcohol and drug treatment provision was associated with changes in treatment and health outcomes, including: treatment access, successful completions from treatment, alcohol-specific hospital admissions, alcohol-specific mortality and drug-related deaths.

Methods: Annual administrative data from 2013/2014 to 2018/2019 was matched at local government level and multi-level time series analysis using linear mixed effect modelling conducted for 151 upper-tier local authorities in England.

Results: Between 2013/2014 and 2018/2019, £212.2 million was disinvested from alcohol and drug treatment services, representing a 27% decrease. Concurrently, 11% fewer people accessed, and 21% fewer successfully completed, treatment. On average, controlling for other potential explanatory factors, a £10,000 disinvestment from alcohol and drug treatment services was associated with reductions in all treatment outcomes, including 0.3 fewer adults in treatment (95% confidence interval: 0.16 – 0.45), and 0.21 fewer adults successfully completing treatment (95% confidence interval: 0.12 – 0.29). A £10,000 disinvestment from alcohol treatment was not significantly associated with changes in alcohol-specific hospital admissions or mortality, nor was disinvestment from drug treatment associated with the rate of drug-related deaths.

Discussion and conclusions: Local authority spending cuts to alcohol and drug treatment services in England were associated with fewer people accessing and successfully completing alcohol and drug treatment but were not associated with changes in related hospital admissions and deaths.

INTRODUCTION

Despite the wealth of evidence that alcohol and drug treatment are effective at reducing health and social harms (1–4), there has recently been substantial disinvestment from publicly funded treatment systems in various countries (5–9). Worldwide each year, over 3 million lives are lost due to the misuse of alcohol and the non-medical use of opioids is associated with premature deaths (4,10). Global disability adjusted life years (DALYs) attributable to alcohol and drugs are over 99 million and almost 32 million, respectively (11). Due to the recognised burden, reducing the harm from the misuse of alcohol and drugs, through prevention and treatment, are global health priorities (12).

Public health investment provides a good return on investment in terms of health outcomes (13,14). Effective substance use treatment improves health and social outcomes for individuals, families, and communities (15,16). This includes reduced consumption and abstinence (17), a reduction in risk-taking behaviour (18), reduced offending (19,20), and reduced mortality (4,21,22).

In England, the majority of treatment services are publicly funded via the Public Health Grant (23). The Health and Social Care Act 2012 transferred many public health responsibilities from the National Health Services, and an allocated Public Health Grant, to 152 England local government areas. Each local authority,

servicing a mean population of 297,286 (SD 226,761), were made responsible for the administration of the grant. Included within the transfer of responsibilities was the commissioning of alcohol and drug treatment services, and the protected status of the alcohol and drug budget - which prevented it being spent on other public health priorities - was removed (24). At the same time, England experienced a national government-led austerity programme, resulting in sustained reductions in total local authority funding. This amounted to estimated losses of £9.8 billion (-38%) between 2009/2010 and 2018/2019 (25), including a £700 million (15%) reduction between 2015/2016 and 2019/2020 in the Public Health Grant (26).

A recently published study examined the relationship between specialist alcohol treatment provision, alcohol-related admissions, and deprivation in England (27). However, to our knowledge no previous studies have been conducted to assess the relationship between disinvestment from alcohol and drug treatment services and changes in treatment access or outcomes at a local authority level.

This paper contributes to the literature by examining how changes in alcohol and drug treatment investment in English local authorities between 2013/2014 and 2018/2019 were associated with changes in treatment access and successful

completions, and wider alcohol and drug-related harm.

METHODS

DATA

The units of analysis in this study were 151 of the 152 upper tier local authorities (local government offices) in England. The Isles of Scilly were excluded from analysis due to alcohol and drug treatment and mortality data not being available for the authority. The data is taken for the financial years 2013/2014 to 2018/2019 inclusive.

The main variable of interest is expenditure on treatment services from the Public Health Grant. This data is extracted from each local authority's publicly available General Fund Revenue Account Outturn (28). Net expenditure data are available from 2013/2014 onwards for alcohol and drugs separately. For 2013/2014 and 2014/2015 the figure reported for each substance type included all activities (i.e. treatment, prevention, and harm reduction). However, from 2015/2016 to 2018/2019, the reported spend was separated into 'treatment' and 'prevention/harm reduction' streams. We added these streams together to enable comparison of net expenditure across years. Expenditure data was converted into real terms using the Retail Price Index with 2013/2014 as the baseline year (29).

The treatment outcomes of interest were obtained from the National Drug Treatment Monitoring System via Public Health

England (30), which compiles data about all people accessing publicly funded structured treatment (17). For each local authority, we used data on the number of adults (i) in treatment, (ii) new to treatment (within that year), (iii) leaving treatment successfully free of dependence, and (iv) leaving treatment successfully and not returning to treatment within six months. Treatment data classifies treatment into four categories: "alcohol only", "opiate", "non-opiate only", and "alcohol and non-opiate".

The health outcomes of interest are (i) alcohol-specific hospital admissions which are admissions where the primary or secondary diagnosis is wholly attributable to alcohol (31), (ii) alcohol-specific mortality where the cause of death is wholly attributable to alcohol (32), and (iii) drug-related deaths (33). Due to small counts health outcomes (ii) and (iii) were pooled over two financial years. The time lag to data publication meant that data for local authorities were only available for four years for alcohol-specific and five years for drug-related mortality.

Summary statistics for treatment expenditure are presented in Table one. The majority (88%) of local authorities saw a decrease in total substance treatment expenditure. Between 2013/2014 and 2018/2019 a total of £212 million was disinvested from treatment.

Table one: Patterns in local authority changes in treatment expenditure between 2013/2014 and 2018/2019

Increased or decreased investment in treatment			Number of local authorities n and (% ^a)	Total Change in Treatment Expenditure £m (SD)		
Substance use	Alcohol	Drug		Substance use	Alcohol	Drug
Increased	Increased	Increased	5 (3)	+£5.83 (1.81)	+£0.84 (0.15)	+£4.99 (1.19)
Increased	Increased	Decreased	4 (3)	+£1.41 (0.59)	+£4.49 (1.56)	-£3.09 (0.97)
Increased	Decreased	Increased	6 (4)	+£11.31 (2.2)	-£5.40 (1.10)	+£16.71 (2.97)
Decreased	Increased	Decreased	67 (44)	-£114.11 (1.68)	+£45.73 (0.78)	-£159.98 (2.21)
Decreased	Decreased	Increased	8 (5)	-£6.96 (0.75)	-£11.47 (1.16)	+£4.51 (0.72)
Decreased	Decreased	Decreased	61 (40)	-£109.68 (1.50)	-£34.80 (0.70)	-£74.89 (1.09)
Total net change in spend:				-£212.21 (1.79)	-£0.60 (1.06)	-£211.61 (2.13)

^a percentages do not sum to 100 due to rounding

STATISTICAL ANALYSIS

Paired t-tests were used to examine the change in each variable over the sample period. The main analysis used multi-level linear mixed effects models. Linear mixed effect models are flexible models that enable regression using longitudinal data with continuous dependent variables (34). Local authorities, population size (35) and financial year were adjusted for as fixed effects. The local authority fixed effect controls for unobserved heterogeneity across local authorities, accounting for time-invariant characteristics. The inclusion of financial year as a fixed effects controls for secular time trend effects which affect every local authority and pick up factors such as increased prescribing costs. Due to the recent integration of many community alcohol services with drug treatment (5,36), analyses examined combined alcohol and drug (hereafter “substance use”) treatment data as well as

alcohol (alcohol only) and drug (opiate and non-opiate) treatment independently.

The regression equation used was

$$Y_{it} = \alpha + \beta_1 INVESTMENT_{it} + \beta_2 POP_{it} + \delta_i + \delta_t + \varepsilon_{it}$$

Where Y_{it} denotes the outcome of interest in local authority i in financial year t . Separate regressions were run for alcohol, drugs, and total substance use. In each case, the independent variable was the substance-specific investment. For example, we estimated the relationship between the investment in *alcohol* treatment and the number of people accessing *alcohol* treatment services. The separate alcohol and drug treatment analysis excluded the “non-opiate and alcohol” treatment numbers as, unlike the other cohorts (including “opiate only”, “non-opiate only” and “alcohol only”), there is no set classification as to whether a person in this cohort accessed alcohol treatment or

drug treatment. For robustness, we included non-opiate and alcohol cohort numbers in the dependent variable for the modelling of binary alcohol and drug treatment analyses. This made little difference to the results and can be found in the appendix (p83). The full output from the modelling can be found in the appendix (p84-87) which shows, on average, an anticipated secular trend across all treatment variables over time and across all local authorities. The delta *ts* confirm holding the funding constant over the period of study, there were increasing declines in the number of people accessing and successfully completing treatment each year.

As the focus of this study is the relationship between disinvestment and treatment and health outcomes, the model results are presented in terms of “per £10,000 disinvested”.

ETHICS AND PUBLIC INVOLVEMENT

This research was granted ethical approval by the University of Sheffield School of Health and Related Research ethics board. The Sheffield Addiction Recovery Research Panel, a group of people with lived experience of alcohol and drug dependence established to shape alcohol and drug related research, was consulted on the research questions and design prior to analysis.

RESULTS

PAIRED T-TESTS

The results from the paired t-tests are presented in Table two.

There was statistically significant disinvestment from substance use treatment and drug treatment between 2013/2014 and 2018/2019. The small decrease in the amount invested in alcohol treatment was not statistically significant. The decline in investment was consistent over the six years with the exception of the money invested in alcohol treatment, which rose to a peak in 2015/16.

Concurrently, there was a significant decline in all observed treatment outcomes. This includes an observed 33,580 fewer people accessing treatment, 15,060 fewer people new to treatment, 14,330 fewer people successfully completing treatment, and 11,785 fewer successfully completing treatment and not returning within six months. There was a statistically significant decrease in all alcohol treatment outcomes, Table two also shows statistically significant increases in alcohol-specific hospital admissions, alcohol-specific mortality and drug-related deaths.

Table two: Annual changes in investment, treatment, and health variables between 2013/2014 and 2018/2019 with paired t-test results

	Mean per local authority (SD)						% change	Mean paired difference (SD) ^a	p-value	
	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019				
SUBSTANCE USE	Money invested in treatment (£000s)	5283 (3449)	5249 (3513)	4933 (3190)	4619 (2996)	4202 (2778)	3878 (2506)	-27%	-1405 (1795)	<0.001
	Number in treatment	1999 (1321)	1955 (1286)	1913 (1252)	1851 (1210)	1776 (1136)	1777 (1125)	-11%	-222 (426)	<0.001
	Number new to treatment	974 (650)	937 (623)	913 (601)	868 (562)	842 (539)	875 (539)	-10%	-100 (300)	<0.001
	Number of successful completions	461 (345)	442 (321)	417 (298)	406 (290)	382 (266)	366 (255)	-21%	-95 (207)	<0.001
	Number of successful completions and not return within six months	440 (328)	443 (327)	417 (293)	404 (283)	385 (269)	362 (249)	-18%	-78 (197)	<0.001
	Money invested in treatment (£000s)	1333 (1266)	1355 (1256)	1537 (1352)	1516 (1300)	1412 (1112)	1329 (1019)	<-1%	-4 (1065)	0.963
ALCOHOL	Number in treatment	607 (415)	590 (398)	563 (384)	533 (360)	502 (331)	501 (333)	-17%	-106 (219)	<0.001
	Number new to treatment	431 (305)	407 (286)	382 (268)	353 (234)	335 (231)	347 (235)	-19%	-84 (168)	<0.001
	Number of successful completions	238 (184)	233 (168)	219 (160)	211 (155)	200 (145)	194 (139)	-18%	-44 (116)	<0.001
	Number of successful completions and not return within six months	228 (175)	231 (172)	219 (157)	210 (153)	199 (143)	191 (138)	-16%	-36 (111)	<0.001
	Alcohol-specific hospital admissions (rate per 100,000)	639 (255)	631 (252)	642 (245)	624 (234)	629 (223)	694 (268)	+9%	55.2 (145)	<0.001
	Alcohol specific mortality (rate per 100,000)	11.2 (4.3)	11.4 (4.6)	11.6 (4.5)	11.7 (4.4)	+4%	0.5 (1.9)	<0.001
DRUGS	Money invested in treatment (£000s)	3950 (2890)	3894 (2984)	3396 (2417)	3103 (2326)	2790 (2246)	2548 (1815)	-35%	-1401 (2133)	<0.001
	Number in treatment	1201 (847)	1178 (819)	1163 (800)	1132 (786)	1091 (747)	1087 (732)	-9%	-115 ^b (212)	<0.001
	Number new to treatment	416 (299)	408 (283)	407 (274)	395 (273)	382 (253)	394 (242)	-5%	-22 (129)	0.038
	Number of successful completions	154 (135)	143 (117)	135 (99)	131 (99)	119 (84)	111 (81)	-28%	-43 (88)	<0.001
	Number of successful completions and not return within six months	147 (130)	145 (122)	135 (99)	130 (93)	122 (90)	112 (78)	-24%	-35 (83)	<0.001
	Drug related deaths (rate per 100,000)	6.3 (2.7)	6.7 (2.9)	7.0 (3.2)	7.4 (3.4)	7.8 (3.6)	..	+24%	+1.5 (1.8)	<0.001

^a Paired t test comparing 2018/2019 with 2013/2014

LINEAR MIXED EFFECTS MODELS

Table three shows that disinvestment from substance use treatment services was

related to reductions in the number of adults in substance use treatment, new to substance use treatment, successfully

completing substance use treatment, and successfully completing substance use treatment without returning within six months.

The results show that every £10,000 disinvestment in substance use treatment services was associated with 0.3 fewer adults in substance use treatment, 0.17 fewer adults new to substance use treatment, 0.21 fewer adults successfully completing substance use treatment, and 0.19 fewer adults successfully completing substance use treatment and not returning within six months. Presented differently, this means that every £33,003 disinvested from substance use treatment services was associated with one less person engaged in treatment, and every £48,780 disinvested was associated with one less person successfully completing treatment. Overall, we estimate that the £212.21 million disinvested from substance use treatment was associated with 6,430 fewer people in treatment, 3,523 fewer people new to treatment, 4,350 fewer people successfully completing treatment, and 4,074 fewer successful completions where the person does not return to treatment within six months.

The relationship between changes in investment and treatment outcomes was similar when considered for alcohol and drugs separately. However, there were no

significant associations between disinvestment in alcohol treatment and numbers in alcohol treatment, including those new to alcohol treatment.

In terms of health outcomes, there were no significant associations between disinvestment in alcohol treatment and changes in alcohol-specific hospital admissions or alcohol-specific mortality, nor changes in investment in drug treatment and drug-related deaths.

Table three: Linear mixed effects modelled relationship between disinvestment, treatment, and health outcomes

Per £10,000 disinvestment from:	Outcomes	All local authorities		
		β coefficient	SE	p-value
Substance use treatment (alcohol and drug combined)	Numbers in treatment	-0.303	0.075	<0.001
	Numbers new to treatment	-0.166	0.054	0.002
	Number of successful completions	-0.205	0.042	<0.001
	Number of successful completions and not return within six months	-0.192	0.041	<0.001
Alcohol treatment	Numbers in treatment	-0.102	0.059	0.083
	Numbers new to treatment	-0.041	0.045	0.365
	Number of successful completions	-0.071	0.035	0.043
	Number of successful completions and not return within six months	-0.067	0.033	0.044
	Alcohol-specific hospital admissions (rate)	-0.048	0.036	0.184
	Alcohol-specific mortality (rate)	-0.001	0.001	0.216
Drug treatment	Numbers in treatment	-0.133	0.027	<0.001
	Numbers new to treatment	-0.106	0.019	<0.001
	Number of successful completions	-0.060	0.014	<0.001
	Number of successful completions and not return within six months	-0.072	0.014	<0.001
	Drug related deaths (rate)	-0.000	0.000	0.613

DISCUSSION

This study has shown that reductions in treatment expenditure were associated with reductions in the number of people accessing and successfully completing treatment. No significant associations were found between disinvestment and increased rates of alcohol-specific hospital admissions, alcohol-specific mortality, or drug-related deaths, although these results need to be interpreted with caution.

This study makes novel use of routinely collected and publicly available financial, treatment and health data to explore important relationships between sustained public health grant disinvestment from alcohol and drug treatment and key public health outcomes. To our knowledge, it is the

first study to provide quantitative evidence of the association between disinvestment from alcohol and drug treatment services and a reduction in treatment access and successful completions. Furthermore, by exploring the funding of systems, as opposed to single interventions, we provide useful results to understand the impact of public health disinvestment for policymakers (15).

Despite the identified association between disinvestment and fewer treatment outcomes in our study, and consistent evidence of the link between treatment and positive health outcomes (4,15,21), our study did not find that disinvestment was related to increased alcohol-specific admissions, alcohol specific mortality, nor drug-related deaths over the period we were

able to study. However, these results need to be interpreted with caution. There are four possible explanations for this. First, there is likely to be a time lag between reduced consumption and health harm, especially when using harm metrics indicative of significant disease progression such as the hospital admissions and deaths. The full effect of disinvestment on harm may therefore only emerge in future years. Second, a large proportion of people who may benefit from alcohol and drug treatment do not access support (37). Given that the overall majority are not in contact with services, aggregate population-level data such as hospital admissions or death rates are less likely to be sensitive to changes in treatment access and completion rates. Third, changes in treatment needs may be driving disinvestment from treatment services. However, treatment need is difficult to measure. Furthermore, hospital admissions and mortality are used in estimating alcohol dependence prevalence which could lead to circularity in the model. Prevalence estimates have remained constant or increased over time whilst investment has decreased which suggests that the results found in this paper are not driven by a decline in treatment need. Fourth, it is possible that the lack of identified relationships between disinvestment and health outcomes could be partially explained by a potential shift from treatment to prevention.

Given the evidence on the positive impact of substance use treatment on health and social outcomes and reducing cost pressures elsewhere in the system, policymakers at a local authority and national level may wish to use the findings from this study to help inform future planning. Further changes to the way in which treatment services in England are funded are expected in April 2021, when the central government's public health grant will no longer be available and local authorities will need to raise income from local business taxes (38). Concerns have been raised as to whether this will prompt further disinvestment in alcohol and drug treatment, limiting the quality and range of services that can be provided (39). The coronavirus pandemic is also predicted to further increase pressure on public health budgets and priorities (40) and to drive change in how treatment is delivered, with perhaps unknown effects on costs.

Further research to examine changes in treatment provision and, for example, treatment modalities, intensity and duration of support, or satisfaction with service provision, may offer additional insight. Similarly, matched individual patient data may be more appropriate to examining the relationship(s) between (dis)investment and changes in hospital admissions and deaths. Qualitative research with local authority stakeholders, including politicians, alcohol and drug treatment strategists and commissioners, could further explain

decision making around (dis)investment and better understand additional changes contributing to the observed trends. This may also help to identify strategic and commissioning practice that has helped to mitigate some of the potential negative consequences of disinvestment in a local authority context. This study could also be replicated in other high-income countries where substance use treatment services are publicly funded and cost pressures are increasing (7,8), to add to the body of evidence. Repeating this type of study for England's nearest neighbours – Wales and Scotland – may provide useful comparisons to support future policy. Further research could also investigate the relative effects of disinvestment in several areas of public health given the finite resource available. Potentially, there may be other public health expenditures that generate higher rates or return on investment. Future research could examine threshold effects of cuts, similar to other studies (41).

A limitation of the study is that it uses observational data and as such causal statements cannot be made. An alternative explanation for our findings would be that disinvestment might have been an appropriate response to a drop in demand. However, this appears less plausible given the political context of widespread funding cuts across many public services, persistent high rates of unmet need (42) and well-documented concerns by treatment practitioners (6,36).

Furthermore, this study does not account for contextual changes during the study period that could have influenced the observed trends and relationships, including changes to the way services are contracted and provided, or broader policy changes. There have been a number of changes to the way in which alcohol and drug treatment services have been commissioned and provided in England (43–45), including an increased focus on alcohol interventions, the integration of alcohol and drug services, and a new focus on supporting people to become abstinent as part of the recovery agenda. Within integrated treatment services (as the majority in England now are) there may be some pooling of alcohol and drug funding to support particular aspects of service delivery for example pharmacotherapy, or diversion of resource from alcohol to drug treatment. This may explain our finding that whilst alcohol treatment spend was fairly stable, compared to drug treatment spend, there were significant decreases in the numbers accessing and successfully completing treatment for both groups.

CONCLUSIONS

Between 2013/2014 and 2018/2019 there was a 27% reduction in the amount of local authority investment in adult substance use treatment services in England. We estimate that the overall disinvestment of £212.21 million between 2013/2014 and 2018/2019 was related to 6,430 fewer people accessing treatment, and 4,350 fewer

successfully completing treatment for
substance use.

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Appendix one for Phase One paper

Table four: Relationships between disinvestment in substance use treatment services and changes in treatment and health outcomes between 2013/2014 and 2018/2019: Linear mixed modelling, adjusted for local authority, population, and year.

Per £10,000 disinvestment from:	Outcomes	All local authorities (excluding non-opiate and alcohol)			All local authorities (including non-opiate and alcohol)		
		β coefficient	SE	p-value	β coefficient	SE	p-value
Alcohol treatment^a	Numbers in treatment	-0.102	.059	0.083	.086	.075	0.251
	Numbers new to treatment	-0.041	.045	0.365	.026	.056	0.647
	Number of successful completions	-0.071	.035	0.043	.070	.044	0.108
	Number of successful completions and not return within six months	-0.067	.033	0.044	.070	.042	0.094
Drug treatment^a	Numbers in treatment	-0.133	.027	<0.001	.135	.033	<0.001
	Numbers new to treatment	-0.106	.019	<0.001	.102	.026	<0.001
	Number of successful completions	-0.060	.014	<0.001	.070	.018	<0.001
	Number of successful completions and not return within six months	-0.072	.014	<0.001	.082	.018	<0.001

^s Including non-opiate and alcohol cohort in binary split

Appendix two for Phase One paper:

Table five: Full output from linear mixed effect modelling

	Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Numbers in substance use treatment	Intercept	2471.081	301.127	906	8.206	0.000	1880.092	3062.069
	Per £10,000	0.303	0.075	906	4.039	0.000	0.156	0.450
	2013	98.958	27.222	906	3.635	0.000	45.533	152.383
	2014	74.274	25.337	906	2.931	0.003	24.549	124.000
	2015	61.283	23.224	906	2.639	0.008	15.703	106.863
	2016	28.423	21.741	906	1.307	0.191	-14.246	71.092
	2017	-21.325	20.929	906	-1.019	0.309	-62.400	19.751
	2018	0 ^b	0.000					
Population	-0.008	0.002	906	-4.911	0.000	-0.011	-0.005	
Numbers new to substance use treatment	Intercept	1442.580	218.183	906	6.612	0.000	1014.378	1870.783
	Per £10,000	0.166	0.054	906	3.059	0.002	0.060	0.273
	2013	24.069	19.724	906	1.220	0.223	-14.640	62.779
	2014	-0.511	18.358	906	-0.028	0.978	-36.540	35.518
	2015	-6.386	16.827	906	-0.379	0.704	-39.411	26.640
	2016	-34.596	15.753	906	-2.196	0.028	-65.512	-3.680
	2017	-45.103	15.164	906	-2.974	0.003	-74.864	-15.341
	2018	0 ^b	0.000					
Population	-0.005	0.001	906	-4.383	0.000	-0.007	-0.003	
Numbers successfully completing treatment for substance use	Intercept	443.095	168.368	906	2.632	0.009	112.657	773.532
	Per £10,000	0.205	0.042	906	4.878	0.000	0.122	0.287
	2013	50.330	15.220	906	3.307	0.001	20.458	80.201
	2014	36.091	14.167	906	2.548	0.011	8.288	63.894
	2015	21.561	12.985	906	1.660	0.097	-3.924	47.045
	2016	20.565	12.156	906	1.692	0.091	-3.292	44.422
	2017	6.868	11.702	906	0.587	0.557	-16.099	29.835
	2018	0 ^b	0.000					
Population	-0.002	0.001	906	-1.717	0.086	-0.003	0.000	
Numbers successfully completing treatment for substance use and not returning within six months	Intercept	439.702	163.940	906	2.682	0.007	117.955	761.448
	Per £10,000	0.192	0.041	906	4.702	0.000	0.112	0.272
	2013	35.869	14.820	906	2.420	0.016	6.783	64.955
	2014	43.031	13.794	906	3.120	0.002	15.960	70.103
	2015	26.728	12.644	906	2.114	0.035	1.913	51.543
	2016	22.873	11.836	906	1.932	0.054	-0.357	46.103
	2017	14.512	11.394	906	1.274	0.203	-7.850	36.875
	2018	0 ^b	0.000					
Population	-0.001	0.001	906	-1.694	0.091	-0.003	0.000	
Numbers in alcohol treatment	Intercept	1003.589	162.105	906	6.191	0.000	685.443	1321.735
	Per £10,000	0.102	0.059	906	1.736	0.083	-0.013	0.216
	2013	69.809	14.518	906	4.808	0.000	41.316	98.302

	2014	61.051	13.345	906	4.575	0.000	34.862	87.241
	2015	41.113	12.439	906	3.305	0.001	16.701	65.525
	2016	19.485	11.801	906	1.651	0.099	-3.676	42.645
	2017	-4.380	11.531	906	-0.380	0.704	-27.011	18.251
	2018	0 ^b	0.000					
	Population	-0.004	0.001	906	-4.088	0.000	-0.005	-0.002
Numbers new to alcohol treatment	Intercept	838.082	124.551	906	6.729	0.000	593.641	1082.524
	Per £10,000	0.041	0.045	906	0.906	0.365	-0.048	0.129
	2013	48.875	11.155	906	4.382	0.000	26.983	70.767
	2014	32.690	10.253	906	3.188	0.001	12.568	52.813
	2015	15.920	9.557	906	1.666	0.096	-2.836	34.677
	2016	-9.792	9.067	906	-1.080	0.280	-27.587	8.003
	2017	-16.720	8.860	906	-1.887	0.059	-34.108	0.668
	2018	0 ^b	0.000					
	Population	-0.003	0.001	906	-5.064	0.000	-0.005	-0.002
Numbers successfully completing alcohol treatment	Intercept	252.183	97.063	906	2.598	0.010	61.688	442.678
	Per £10,000	0.071	0.035	906	2.030	0.043	0.002	0.140
	2013	36.398	8.693	906	4.187	0.000	19.337	53.459
	2014	32.245	7.990	906	4.036	0.000	16.564	47.927
	2015	19.102	7.448	906	2.565	0.010	4.485	33.719
	2016	13.280	7.066	906	1.879	0.061	-0.588	27.148
	2017	3.964	6.904	906	0.574	0.566	-9.586	17.515
	2018	0 ^b	0.000					
	Population	-0.001	0.001	906	-1.501	0.134	-0.002	0.000
Numbers successfully completing alcohol treatment and not returning within six months	Intercept	237.727	92.540	906	2.569	0.010	56.110	419.344
	Per £10,000	0.067	0.033	906	2.020	0.044	0.002	0.133
	2013	29.071	8.288	906	3.508	0.000	12.806	45.337
	2014	33.990	7.618	906	4.462	0.000	19.039	48.941
	2015	22.058	7.101	906	3.106	0.002	8.122	35.994
	2016	14.694	6.737	906	2.181	0.029	1.473	27.916
	2017	6.016	6.583	906	0.914	0.361	-6.903	18.935
	2018	0 ^b	0.000					
	Population	-0.001	0.001	906	-1.426	0.154	-0.002	0.000
Alcohol specific-hospital admissions (rate)	Intercept	979.968	100.100	894	9.790	0.000	783.510	1176.425
	Per £10,000	0.048	0.036	894	1.329	0.184	-0.023	0.118
	2013	-70.038	9.046	894	-7.742	0.000	-87.792	-52.284
	2014	-73.261	8.237	894	-8.894	0.000	-89.428	-57.094
	2015	-59.687	7.673	894	-7.779	0.000	-74.746	-44.628
	2016	-72.914	7.306	894	-9.980	0.000	-87.252	-58.575
	2017	-65.637	7.110	894	-9.231	0.000	-79.592	-51.683
	2018	0 ^b	0.000					
	Population	-0.002	0.001	894	-2.812	0.005	-0.003	0.000
Alcohol specific mortality (rate)	Intercept	10.426	2.657	596	3.923	0.000	5.207	15.646
	Per £10,000	0.001	0.001	596	1.239	0.216	-0.001	0.002

	2013	-0.541	0.154	596	-3.508	0.000	-0.844	-0.238
	2014	-0.299	0.132	596	-2.264	0.024	-0.558	-0.040
	2015	-0.178	0.115	596	-1.543	0.123	-0.405	0.049
	2016	0 ^b	0.000					
	Population	0.000	0.000	596	-0.391	0.696	0.000	0.000
Numbers in drug treatment	Intercept	1571.883	126.240	906	12.452	0.000	1324.126	1819.640
	Per £10,000	0.133	0.027	906	4.924	0.000	0.080	0.186
	2013	39.665	11.426	906	3.471	0.001	17.240	62.090
	2014	30.464	10.584	906	2.878	0.004	9.693	51.236
	2015	35.720	9.634	906	3.708	0.000	16.814	54.627
	2016	21.377	9.078	906	2.355	0.019	3.561	39.193
	2017	-6.768	8.841	906	-0.766	0.444	-24.119	10.582
	2018	0 ^b	0.000					
	Population	-0.006	0.001	906	-8.121	0.000	-0.007	-0.004
Numbers new to drug treatment	Intercept	629.201	88.870	906	7.080	0.000	454.786	803.616
	Per £10,000	0.106	0.019	906	5.552	0.000	0.068	0.143
	2013	-16.407	8.044	906	-2.040	0.042	-32.194	-0.620
	2014	-18.410	7.451	906	-2.471	0.014	-33.032	-3.787
	2015	-8.278	6.782	906	-1.221	0.223	-21.588	5.032
	2016	-11.234	6.390	906	-1.758	0.079	-23.776	1.308
	2017	-17.274	6.224	906	-2.776	0.006	-29.488	-5.060
	2018	0 ^b	0.000					
	Population	-0.002	0.000	906	-4.831	0.000	-0.003	-0.001
Numbers of successful completions from drug treatment	Intercept	353.527	63.394	906	5.577	0.000	229.112	477.943
	Per £10,000	0.061	0.014	906	4.461	0.000	0.034	0.087
	2013	16.323	5.738	906	2.845	0.005	5.062	27.584
	2014	10.351	5.315	906	1.948	0.052	-0.080	20.781
	2015	9.410	4.838	906	1.945	0.052	-0.084	18.905
	2016	11.478	4.559	906	2.518	0.012	2.531	20.424
	2017	4.632	4.439	906	1.043	0.297	-4.081	13.345
	2018	0 ^b	0.000					
	Population	-0.002	0.000	906	-5.167	0.000	-0.002	-0.001
Number of successful completions from drug treatment and not returning within six months	Intercept	323.593	64.184	906	5.042	0.000	197.626	449.560
	Per £10,000	0.072	0.014	906	5.273	0.000	0.045	0.099
	2013	9.245	5.809	906	1.591	0.112	-2.157	20.646
	2014	11.083	5.381	906	2.060	0.040	0.522	21.644
	2015	8.333	4.898	906	1.701	0.089	-1.280	17.945
	2016	9.452	4.615	906	2.048	0.041	0.394	18.510
	2017	5.938	4.495	906	1.321	0.187	-2.883	14.760
	2018	0 ^b	0.000					
	Population	-0.002	0.000	906	-4.534	0.000	-0.002	-0.001
Drug related deaths (rate)	Intercept	20.665	2.070	744	9.985	0.000	16.602	24.728
	Per £10,000	0.000	0.000	744	0.506	0.613	-0.001	0.001
	2013	-2.062	0.155	744	-13.341	0.000	-2.365	-1.759
	2014	-1.465	0.138	744	-10.608	0.000	-1.736	-1.194
	2015	-1.025	0.122	744	-8.413	0.000	-1.264	-0.785

	2016	-0.558	0.113	744	-4.927	0.000	-0.781	-0.336
	2017	0 ^b	0.000					
	Population	0.000	0.000	744	-4.981	0.000	0.000	0.000

5. Phase Two paper

ORIGINAL ARTICLE

Commissioner perspectives on the impact of disinvestment from alcohol and drug treatment services – a qualitative inquiry in England

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ABSTRACT:

Background: Despite strong evidence on the positive impact of effective alcohol and drug treatment there has been substantial disinvestment from publicly funded treatment services in England since 2014. Simultaneously, there have been reports of reduced availability and diminished quality of treatment during a time of substantial economic challenge within local government. This research explores commissioner perspectives and experiences relating to disinvestment and identifies activity designed to protect treatment availability and effectiveness in England.

Methods: In-depth semi-structured interviews with a purposive sample of 14 local authority alcohol and drug treatment commissioners explored their experiences of changes in investment between 2013/14 and 2017/18 and the perceived impact on treatment provision. Interviews were audio-recorded, transcribed verbatim and analysed thematically.

Results: Commissioners described a complex landscape of changes in commissioning practice, service structure and related public policy. Commissioners highlighted the influence of leadership and financial austerity in the local authority context. Whilst procurement activities provided opportunities to achieve efficiencies, the required re-tendering processes were described as destabilising. Whilst examples of progress in service provision were provided, commissioners perceived that disinvestment had started to have a negative effect. Furthermore, changes across the broader welfare system were thought to have further compounded difficulties for the most vulnerable in need of support.

Conclusions: Despite commissioner efforts to moderate harm from recent disinvestment, the ongoing budget cuts have reduced the reach and effectiveness of treatment provision for substance use disorders.

BACKGROUND

Worldwide, more than 155 million people have a substance use disorder (1) and each year over three million lives are lost due to alcohol and drugs (2,3). In England, an estimated 900,000 adults are dependent on alcohol or drugs (4,5), and there are rising related hospital admissions and deaths since data was first made publicly available in the 2000s (6,7). Extensive individual, familial and societal harm makes reducing alcohol and drug misuse global health priorities (8).

The provision of publicly funded alcohol and drug treatment is recognised as an effective part of a comprehensive policy approach to reduce the negative health and social outcomes (9–15), providing a good return on investment (16,17). Effectiveness is guided by many elements, including the successful engagement and retention of people in treatment. For an individual, the benefits of engaging need to be clear, person-centred approaches offered, and clear goals established to build self-efficacy (18,19). For individuals, health, wellbeing and productivity can improve through treatment engagement (20,21); for families, healthier relationships can be formed and parents can be reunified with their children (22); and for societies, crime, antisocial behaviour and hospital admissions can decrease (23–25). Economic gains can be substantial, brought about by extended quality adjusted life years, reduced pressure on the NHS, increased employment,

decreased homelessness, and reductions in cases requiring criminal justice or social care intervention (26,27).

Since 2013, responsibility for commissioning alcohol and drug treatment in England has rested with local authorities, having transferred from the National Health Service (28). At the same time a ring-fence which protected spending for alcohol and drug treatment was removed (29). This transfer of responsibilities coincided with a period of public sector austerity, in the wake of the global recession, and resulted in significant budget reductions across a wide range of local government service areas, including housing and employment support services (30,31). Within local authorities, commissioning is based on the premise of ensuring the best possible value for public money in terms of effectiveness of services within the budget available (32–34). Local authority-employed commissioning officers are pivotal to the commissioning cycle of needs assessment, strategic planning, procurement and contract management, in line with local need and national policy. Since 2014/15 the amount of money invested in alcohol and drug treatment services in England has declined (35), concurrent to decreases in treatment access and outcomes (36) and increases in related harm (6,7). A previous study identified that disinvestment between 2013/14 and 2018/19 was associated with fewer people accessing and successfully completing treatment (37). Grey literature

has highlighted treatment and public health stakeholders' concerns of reduced availability and quality of services (38,39). Simultaneously, alcohol-specific hospital admissions, alcohol-specific mortality and drug-related deaths have increased (40,41).

Previous studies have used mixed methods approaches to explore alcohol and drug treatment commissioner, workforce and partnership experiences of recent changes in investment and service provision (38,39,42–44). Recurrent themes included concerns about the quality and availability of treatment and the lack of a national strategy to inform local delivery. Qualitative research with commissioners enables the exploration of decision-making processes influencing changes in commissioning and service provision, or perspectives regarding changes to the effectiveness of treatment (45,46). Broader health research has explored commissioner approaches to disinvestment in the National Health Service but not focussed exclusively on the impact (47). It highlighted different drivers of, and approaches to, disinvestment and a tendency to focus on reductions rather than withdrawal of services. However, previous research has not gathered comprehensive insights from a range of different local authorities to understand the impact of disinvestment on alcohol and drug treatment commissioning or service delivery, nor examined efforts to mitigate

the negative impacts of disinvestment that could inform learning for future commissioning.

The aim of this study was to explore, from a commissioner perspective, experiences relating to disinvestment. Specific objectives were to identify: 1) the drivers of change in investment, 2) wider contextual factors that influenced commissioning practice, and 3) activity designed to protect investment or moderate the negative impact of disinvestment.

METHODS

Participant selection and setting

A purposive sample of English local authorities was selected to maximise variation in experiences. All local authorities were classified into one of four groups according to changes reported in annual administrative data (net public health grant expenditure on adult alcohol and drug treatment¹⁰ (35) and concurrent changes in treatment access and successful completions) between 2013/14 and 2017/18. Participants were purposively sampled from each group and by deprivation quintile (48) (Table one, supplementary information, p105). The four groups were: i) disinvested and decreased treatment numbers; ii) disinvested and increased treatment numbers; iii) increased investment and decreased treatment

¹⁰ Including spend on “preventing and reducing harm from alcohol/drug misuse” from 2015/16

numbers; and iv) increased investment and increased treatment numbers. Twenty local authority-based commissioners, who provide advice to support investment decisions and lead changes to service provision, were invited to participate in a research interview by email. Interested parties were emailed a participant information sheet and consent form before the interview, and informed consent was secured verbally at the start of each recorded interview. Two participants did not respond to the invitation and three actively declined participations due to work commitments. Fourteen interviews were completed before thematic and data saturation was achieved so no further participants were pursued for participation.

Ethics

Ethical approval was granted by the University of Sheffield's School of Health and Related Research's Ethics Committee in June 2019 (reference 030159).

Data Collection

Interviews took place in August 2019 and lasted approximately one hour (range 30 to 83 minutes) and were conducted by telephone by a sole female researcher. A week prior to interview, participants were given a written report summarising national changes in investment in treatment services, treatment outcomes, alcohol-specific hospital admissions, alcohol-specific mortality and drug-related deaths in England overall. This was to contextualise

the research and allow participants opportunity to reflect on how their local authority might compare to the national average. A topic guide was developed and included questions designed to better understand the context of, and factors commissioners felt had contributed to, trends in investment and treatment provision. Topics included reflections on the written report, procurement activity, the make-up of services, perceived impact of changes in investment, drivers of change and positive developments.

Data analysis

Interviews were audio recorded and transcribed verbatim. NVivo was used to organise the data for analysis. Pseudonyms were adopted to protect anonymity and confidentiality. The sample size was dictated by a combination of inductive thematic saturation and data saturation (49), following a non-linear approach to sampling, interviews and analysis (50). Beginning with an inductive approach (51) the first 10 interviews were coded to generate baseline themes against which the following interviews were assessed for the generation of new information. A subset of three transcripts were independently coded by one co-author with no prior knowledge of draft themes following which coding, sub-themes and themes were discussed and agreed.

RESULTS

Analysis revealed four main themes: (1) Local authorities: alcohol and drug treatment in context; (2) Procurement: an opportunity and a threat; (3) Service provision: evolution before erosion and (4) Wider context: a perfect storm for the most vulnerable.

Local authorities: alcohol and drug treatment in context

Alcohol and drug treatment budget cuts were widely regarded as proportionate to national public health and local authority cuts. The ring-fence of the public health budget, which prohibits its spend on non-public health activity, was perceived to be a protective factor for continued investment in alcohol and drug treatment.

There were mixed views on the impact of the transfer of public health responsibilities to local authorities. Benefits described include greater alignment of alcohol and drug strategy and commissioning with other with other public health services, such as co-delivery of smoking cessation and sexual health services with alcohol and drug treatment:

“it’s also helped us to coordinate and integrate so for instance part of my role I’m responsible for other services as well so commission sexual health services for instance” (James).

Political and public health leadership was described as pivotal to the protection of

budgets. Where reducing alcohol and drug related harm aligned with a local authority’s broader strategic objectives this helped to protect investment in treatment services. For example, recognising the potential impact of treatment services on reducing the demand for statutory social care services. Some commissioners identified regular change in public health leadership of the alcohol and drug agenda as a problem to local ownership of the agenda:

“these [public health] consultants are no better than the directors that we had in local authority, in fact in some respects a lot worse. At least with the directors and the authority you had people on a you know on a career pathway within the council and they had far more commitment” (Mark).

However, some participants described a lack of understanding by leadership of the value of treatment services:

“there isn’t the same level of expertise or the same level of commitment to the drug and alcohol programme... certainly the drug programme as they used to be and it’s almost like a begrudging adopted son” (Tom).

Many commissioners spoke about working in substantially smaller alcohol and drug commissioning teams and increased responsibilities:

“when we came over to public health there was about 6 or 7... working on

the drug and alcohol programme and now it's 70% of mine [workload] with some input from other people but nobody else" (Tom).

As a result, some participants described feeling overwhelmed by their work responsibilities.

Procurement: an opportunity and a threat

Experiences of procurement activity was mixed, with some highlighting opportunities for improvement and others finding the process a detriment to progress. Despite the need to realise financial savings, most procurement activity was driven by European Union legal requirements (to advertise service contracts on the open market) and not the need to cut budgets. Participants reported that most of the required cuts were achieved through a reduction in overheads by amalgamating contracts (e.g. integrating community alcohol and drug services):

"there were some significant savings made there however that was mostly due to the fact that we had nine separate contracts providing drug and alcohol services and we combined them into one service. So, there were efficiencies we were able to make there" (Louise).

Participants described an increasing focus on improving return on investment in commissioned services, seeking

alternatives that allow more people to access support for the same, or less, investment. One activity perceived to provide a low return on investment - compared to community-based options - was residential rehabilitation:

"when you consider how much you spend on a 3 month [rehab] treatment episode is around anywhere between £8-10,000, you don't get very many people treated for £100,000 or £200,000 worth of budget. When I can send 15 people to a community provision for 50 grand I know where I'm going to invest my money" (Simon).

Regularly, commissioners referenced improvements in local authority funding of, and access, to recovery-focussed community support, usually offered as a stand-alone service. These services included peer support programmes, social enterprise ventures (e.g. community cafes and recreation centres) and community rehabilitation programmes.

"we managed to pull back a lot of the money that we'd got at the time to actually create a [independent] recovery service... and the whole idea of this was that all the recovery skills would be embedded in that and be unraidable [cannot be accessed] by the clinical team" (Mark).

In contrast to these opportunities created by procurement, some commissioners

perceived re-tendering processes to be destabilising:

I knew it would take them two years to get back to or to deal with the turmoil of a major recommission which has proved bang on... one is the impact on the staff at the coalface say there is a lot of insecurity generated by re-commissioning process and people first of all you know, will they have a job... what service will they be... so lots and lots of insecurity that impacts on morale and that is bound to impact on how well people are working" (Paul).

To counter this problem, some commissioners sought longer term contracts:

"it's [re-tendering] not necessarily having the best outcome but one of the things we tried to do to get our cabinet to agree to a much longer contract period which they did so we so instead of doing that every three-year term we managed to secure a five-year contract with the option to extend for two" (Elaine)

Additionally, increasingly fewer organisations are bidding for alcohol and drug treatment contracts. Reasons for this included the perceived financial unviability of contracts and a shrinking market of potential providers as many have ceased to operate in recent years:

"we weren't able to award the contract because we had two interested parties; one withdrew because of things that were going on within their organisation and the other one was my existing provider who came in saying they could make savings... which wasn't true" (Becky).

"I think what we're seeing sort of regionally... is a reduction in the number of organisations... almost a shrinkage of the available providers, people taking over, people going out of business etc." (James).

Service provision: evolution before erosion

Participants acknowledged that there had been widespread need to modernise services, irrespective of financial pressures. One driver for modernisation was the reorientation towards recovery-focussed policy:

"...we also needed to do was look at the services themselves because... the outcomes we were getting from the service weren't great because people were jumping between services and dropping out there was no integration at all.... it [procurement] was one of the drivers but not the main driver. The main driver was the outcomes we were getting from the services... when I first started the target was getting

people in... You know maintained on a script on high doses of methadone but not really working around the psychosocial element of stuff and there was very limited recovery support at the time... that's where I think why we did it to strengthen the offer" (Sue).

Another driver was the need to ensure facilities are more welcoming and in line with therapeutic, person-centred approaches:

"you [now] walk into an open plan reception area there's no... glass screens separating staff from clients and everyone's treated with kindness, dignity... initially some of the anxiety was really high because they [staff] were concerned they were going to be assaulted by these clients. The clients were angry because of the way they were being treated. It was about being kind to them and offering them a dry reception area and a comfortable seat it was amazing how they weren't angry anymore" (Simon).

A third was the development of community-based recovery services, which seemed a positive focus of many participants. Examples were framed as improving inclusivity and as enabling recovery, with the emphasis being on supporting people in their "real" environment:

"we have developed as a community-based rehab... a 12-week programme, five days a week. People don't stay, they go home every night we found that to be really successful in terms of the people have been able to put into practice all the things they've learned in rehab... working with their own families in dealing with issues that present themselves and really challenging how they might react to some of that in that real life environment" (Sue).

However, participants reflected that disinvestment has had an undeniable negative impact on quality in some aspects of service provision:

"as the budgets been coming down... we've been reducing the added quality and stripping it back coming down from a Bentley to a Volkswagen" (Tom).

This includes a reduction in the reach and effectiveness of some aspects of service provision, for example, links with the National Health Service:

"we're just not getting the referrals through general practice. Even though we've got hospital liaison nurses we don't get hospital admissions ending up as a referral into treatment longer term" (Jane).

Commissioners talked frequently about the impact of the integration of alcohol and

drugs services, particularly in relation to not always being able to respond to need:

“we had an alcohol workforce and a drug workforce so that was the biggest issue was and certainly for me the cause of the drop in outcomes. What we had there was a significant training need” (Paul).

“Because some of the feedback that we get from patients and services users they don’t want to come to the treatment centres because there are negative associations... if you’re someone who is alcohol dependent you may be sitting next to someone who takes heroin and they’re not the same people...” (Anne).

In addition, funding cuts were described as contributing to increased pressures within services, including group sessions replacing one-to-ones and increased practitioner caseloads:

“I think it’s fair to say that their caseloads have increased as a result and it’s undeniable that when you reduce the contract value that sort of pressure is going to happen” (Elaine).

Overall, there was a distinct narrative that there was no fat left on the bone and that further reductions would lead to either a reduction in the quality of the treatment offered or on the number of people who would be able to access support.

Wider context: a perfect storm for the most vulnerable

A combination of factors, including disinvestment, appear to be further compounding difficulties for some of the most vulnerable people with substance use disorders. First are the described changing needs of the treatment population, in particular an ageing group of people who use opiates, with deteriorating physical and mental health. There were perceived shortfalls in the current recovery-focussed drug policy, which fails to offer suitable responses to this population:

“we’re getting a lot of people who are presenting with multiple and complex needs... we’ve got quite a large cohort of people who are not well, as well as having a dependency on opiates, so that poses challenges and with the high caseloads the intensity of the interventions and the frequency of this group cohort need, we probably can’t offer them as much as we’d like and that’s then obviously slowing the number of successful completions that we get” (Laura).

Participants also shared examples of people not engaging in treatment until their needs had become more complex, particularly for alcohol:

“they come in at crisis point. I think if you want to ask me where we would want to be in the future it will be in a

place where we can encourage people to come through the door much quicker” (Simon).

Participants reflected that the national shift to a recovery-focussed policy in 2010 drove activity to support a cohort of the drug treatment population into recovery. However, those who have been in treatment for a long time were described as having increasingly complex needs:

“... there's been an acceptance of this idea we've been getting people into recovery for quite a long time now and the ones that were most ready for it were able to do it or have achieved it and people that you're working with now if they haven't had successes before it's because they haven't got very confident or very able... so it's an understandable reduction” (Tom).

Changes in broader welfare, health and criminal justice policy were also perceived to contribute to the slowing of improvements in treatment outcomes. For example, participants reflected that any increased investment in mental health support had very limited impact on the alcohol and drug treatment population, describing no progress in dual diagnosis pathways despite years of effort:

“certainly at the broadest level just the impact of austerity... but the cuts across health and social care that

we've seen... the most deprived communities that are most impacted by our drug and alcohol related harm... it's those communities that have been impacted by cuts to other services so people are using drug and alcohol to deal with you know mental health problems, stress, you know trauma... so anything that reduces the support or increasing the stress they are under is likely to negatively impact on substance misuse” (Paul).

And substantial changes to the welfare system, particularly for low-income households, those out of work and some people in social housing, have further marginalised some people:

“... not just Universal Credit but the changes to housing benefit have massively [impacted on the treatment population] ... our residents were the most impacted on by benefit changes in terms of having a small income and getting an even smaller income then you have the issues of being of people not complying with the requirements of benefits and losing their benefits completely.” (Jane).

Given the reliance of a proportion of the treatment population on broader welfare support, these policy changes were perceived to have compounded the

challenges encountered by treatment services.

DISCUSSION

This study provides insight into the drivers of recent declines in investment and treatment outcomes in England, from a commissioner perspective. In a challenging context of reductions in funding across all areas of local authority responsibility, the need to save money has necessitated budget reductions for most alcohol and drug treatment services. Broader welfare policy changes have compounded the negative impact of budget reductions, as vulnerable populations have also been adversely affected by changes to welfare support.

As investment in services for the treatment population has decreased, commissioners have adapted practice in attempt to moderate some of the negative impacts. Whilst attempts have been made to improve aspects of service provision, budget reductions are described as having begun to negatively affect service delivery. For example, changing the mode of delivery in ways that are likely to be felt unequally across the treatment population, and for which the consequences for treatment outcomes are not yet clear. Given the breadth of evidence regarding the health and social benefits of treatment, it might be that the economic pressures faced within local government are resulting in service disinvestment that will have substantial

knock-on effects on more costly statutory services (26,27).

Previous studies identified large cuts to alcohol and drug treatment services in England and concerns about continued reductions in the context of challenging financial pressures within local authorities (38,39,42,52,53). A growing amount of grey literature has explored similar topics, typically focussing on either solely on alcohol or drugs (38,42). This literature identified similar concerns regarding disinvestment, the negative impact of re-tendering, and insufficient support for people with dual diagnosis (38,42). This study also further supports previous research that suggested some innovation has continued but that there are limited further opportunities for disinvestment without negative effect, confirming previous concerns about the ability to maintain quality in service provision moving forward (39,44,53).

Commissioners regularly portrayed changes in a narrative of “service improvement” and the pursuit of activity designed to minimise the direct impact of disinvestment in service provision, similar to previous descriptions of “true” disinvestment from health services (54). However, the detail provided through these in-depth interviews allowed insight into marked changes in commissioning and service provision signalling an exhaustion of opportunities to moderate harm, reflecting

experiences elsewhere in health service disinvestment (55).

Our research explores how commissioners have sought to maintain effective treatment provision despite sustained financial pressures and offers insight into the complex context of commissioning of alcohol and drug treatment services. It highlights reductions in the specialist alcohol and drug commissioning workforce, particularly as services have merged and specialisms have been eroded on both the commissioner and provider side. Substantial programmes of disinvestment are shown to require specialist knowledge and extensive project management (54), so such changes in commissioning teams may further impact treatment provision. We identified the vital importance of supportive and stable leadership teams who can articulate the value to alcohol and drug treatment services to the wider local authority agenda.

Our research also provides more detail on the impact of re-tendering, destabilising service provision for a protracted period, often with reduced financial envelopes. These factors have resulted in fewer organisations competing for contracts and a workforce feeling insecure and undervalued.

Finally, our study explored how broader policy changes have affected the most vulnerable among those accessing treatment. This included drug policy which has failed to recognise the importance of

harm minimisation for long-term opiate users with complex needs and an overhaul of the welfare state, resulting in unmanageable inflexibility for those amongst most in need.

This study enabled insight into the difficulties presented by changes in investment through the lens of a diverse sample of commissioners, who are responsible for decisions and changes to alcohol and drug treatment services. The moment-in-time nature of these interviews presents issues of recall bias, in terms of the accuracy and sequencing of described events and the potential influence of current events on the commissioner's position (45). Focussing solely on the commissioner experiences does not offer the perspectives of other key stakeholders (such as treatment provider managers and practitioners, people who access services or local authority senior managers and politicians), which might offer alternative or additional insight into the impact of changes (56). Additionally, given that some areas may have only very recently begun disinvestment from alcohol and drug treatment, it may be that commissioners are yet to understand the true extent of the impact of disinvestment.

CONCLUSION

During a period of sustained disinvestment, alcohol and drug treatment services have been redesigned to modernise provision whilst making efficiencies. Through

procurement activity, commissioners have sought to innovate and adapt service provision to retain quality. The impact on outcomes remains to be seen, and parallel welfare policy changes are likely to also impact on outcomes for an increasingly complex cohort within the treatment population. Opportunities to limit the negative impact of budget cuts appear to have been exhausted and any further disinvestment is likely to impact on the reach and effectiveness of treatment provision. In turn, this could exacerbate pressures on more costly local authority, health and criminal justice services.

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Phase Two supplementary information

Table one: Overview of participants including IMD, change in investment and change in treatment outcomes

Commissioner name ^a	Deprivation quintile of local authority ⁺	Change between 2013/14 and 2017/18	
		In investment in alcohol and drug treatment	In treatment outcomes
Elaine	1	Disinvested	Increased
Sue	4	Disinvested	Increased
Jeff	5	Disinvested	Increased
Anne	3	Disinvested	Increased
Jane	5	Disinvested	Decreased
Tom	4	Disinvested	Decreased
James	5	Disinvested	Decreased
Becky	1	Disinvested	Decreased
Louise	3	Disinvested	Decreased
Fiona	4	Disinvested	Decreased
Paul	2	Disinvested	Decreased
Mark	2	Increased investment	Increased
Simon	3	Increased investment	Decreased
Laura	4	Increased investment	Decreased

^a Participant names in the table are pseudonyms and not the actual names of those interviewed

⁺ Deprivation quintile 1 = least deprived to quintile 5 = most deprived

6. Phase Three paper

ORIGINAL ARTICLE

DISINVESTMENT DECISIONS AND CHANGES TO THE COMMISSIONING AND PROVISION OF ALCOHOL AND DRUG TREATMENT SERVICES: A SURVEY OF ENGLISH COMMISSIONERS

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ABSTRACT

Background: In England, there were significant budget cuts to publicly funded alcohol and drug treatment between 2013/14 and 2018/19. Concurrently there were substantial reductions in the number of people engaging in and successfully completing treatment, and an increase in alcohol and drug related harm. Local government (authorities) became responsible for alcohol and drug treatment commissioning in 2013, coinciding with a period of increased financial pressures within the public sector. This study sought to understand alcohol and drug treatment commissioners' experiences and drivers of changes in investment and the effects on services commissioning and provision.

Methods: An online survey of England's commissioners of alcohol and drug treatment services, inviting a representative from each local authority. Topics included changes to investment, commissioning and service provision, challenges and positive developments.

Results: Survey responses representing 55% ($n = 83/151$) of local authorities identified budget cuts to all treatment types and the loss of funding streams in addition to Public Health Grant investment, negatively affecting treatment provision. The local authority environment has presented challenges in terms of competing priorities, a significant reduction in the size of specialist strategy and commissioning teams and frequent retendering. Nearly all respondents reported moving to integrated community alcohol and drug services to reduce costs, but this is perceived to have reduced accessibility for people with alcohol use disorders.

Conclusion: Continued and additional financial pressures have driven substantial changes in the commissioning and provision of alcohol and drug treatment. Commissioners report engaging in changed practices to limit the direct impact on frontline provision but that cuts have resulted in unavoidable impact on the availability and effectiveness of treatment services in England.

BACKGROUND

Alcohol and drug treatment is an effective policy approach to improving health and social outcomes for individuals, their families and society (1–4). In 2013, local authorities in England became responsible for the commissioning of alcohol and drug treatment (5). This happened during a period of substantial financial pressures and policy changes, resulting in significant disinvestment from publicly funded services, including treatment services (6–8). Arguably the most pertinent policy change was triggered by the 2012 Health and Social Care Act, devolving public health budgets and decision-making, to each local authority in England.

Previous studies have identified that, initially, cuts were managed effectively by changes to treatment contracting and efficiencies in service configuration (9,10). Substance use treatment stakeholders, including a Government advisory group, a non-governmental organisation, and charities, have raised concerns that ongoing budget cuts would reduce the reach and effectiveness of treatment provision in England (8,9,11,12). A quantitative study using routine administrative data identified statistically significant relationships between public health grant disinvestment from treatment services and fewer people engaging in, and successfully completing, treatment for substance use (13). Substantial national variation in

(dis)investment and relative treatment engagement and successful completions was also found, including a disproportionate impact of overall cuts on alcohol treatment numbers. Between 2013/14 and 2018/19, Public Health Grant investment in drug treatment reduced by 35% and alcohol treatment by <1%. However, the concurrent reduction in people accessing drug treatment was -9% while for alcohol treatment it was -17% (13,14).

Local authority-based commissioners are responsible for identifying local need, response planning, procuring (buying of), monitoring and review of alcohol and drug treatment services. Therefore, they are well-placed to provide insight into local need, investment decisions, treatment service delivery and other influencing factors (15). Previous research has not examined the national variation in commissioner experiences of alcohol and drug treatment investment or commissioning since budget cuts began. Therefore, little is known about the commissioner perspectives on the effects of disinvestment on treatment commissioning and provision, other funding changes and their impact (for example, the gain or loss of other funding streams), how budget cuts have affected local decision-making regarding service commissioning or the impact of the local authority context. Understanding local investment decisions, resulting changed commissioning practices

and service provision may help to inform future local and national policy.

This online survey aimed to examine England's alcohol and drug treatment commissioners' experiences and/or perceptions of (i) (dis)investment; (ii) related changes in commissioning practices; (iii) related changes in service provision; and (iv) the evidence of a disproportionate impact of disinvestment on alcohol treatment numbers.

METHODS

Participant selection and setting

Local authority-based alcohol and drug treatment commissioners from 150 of the 151 local authorities in England were invited to participate in an online survey about their experiences since 2013/14. One authority was not contacted as appropriate contact details were not found. Commissioners were invited via an email generated by Qualtrics and a synchronised email was sent from a University email account, avoiding potential issues of it being perceived as junk or spam mail. Details of data security and governance, in addition to issues pertaining to confidentiality were included within a participant information sheet, attached to the survey launch invitation email. To ensure that the person invited was the commissioner, professional local authority (.gov.uk) email addresses were sought in advance of the survey launch. To access the survey, participants were required to confirm their commissioner

role and provide informed consent to participate.

Ethics

Ethical approval was granted by the University of Sheffield's School of Health and Related Research's Ethics Committee in February 2020 (ref 031439).

Data collection

A survey tool was developed, with content informed by previous research (Phase Two paper, 13). The 33-item survey (supplementary information, p125) was conducted online using Qualtrics and was designed and piloted with local authority-based public health professionals (16). Following the pilot, there was re-ordering of some content and the inclusion of a couple of additional options within multiple response questions. The survey comprised three main sections: i) changes in investment; ii) procurement and commissioning activity; and iii) service provision. The survey included a multiple response closed questions, Likert scales and open questions with freetext responses. Likert scales included the options *neither agree nor disagree* and *does not apply* to provide both a neutral and an opt out option.

Commissioners were invited to participate via email and weekly reminders sent whilst the survey was live. A participant information sheet was attached to the email and consent to participate was gained via a mandatory checkbox at the start of the survey. The survey was first launched for a

four-week period in March 2020 and received 49 valid responses, representing 51 (34%) local authorities. The first release coincided with the start of the Covid-19 pandemic therefore we completed a second launch in June 2020 to capture as many responses as possible. On second launch, we targeted the remaining 99 local authority commissioners, collecting an additional 30 valid responses, representing a further 32 (21%) local authorities.

Data analysis

Quantitative descriptive analysis was undertaken using IBM SPSS Version 26. In the results section, responses are presented as a percentage and number. As not all questions were answered, the denominator is provided to show total number of respondents to the question. To assess response bias, independent *t* tests were carried out to quantify differences between respondents and non-respondents in terms of population size, reported changes in investment, treatment engagement and successful completions between 2013/14 and 2018/19. Paired *t* tests examined reported changes between 2013/14 and 2018/19. Freetext answers to open questions were subject to content analysis. A specific question was included seeking thoughts as to what might be contributing to the identified national trend of disproportionate declines in alcohol treatment number declines to disinvestment. Content analysis of freetext responses was completed and themes

generated. An error with a skip function in the first launch excluded *integration of services from challenges in service provision* so this item was excluded from analysis. This was not identified during the pilot as it would not have been apparent in the options selected by participants regarding changes in investment.

RESULTS

Represented local authorities

A total of 83 (55%) local authorities were represented via 79 responses, as some participants lead commissioning for more than one local authority. Participants confirmed which authority(ies) were represented by their responses. Table 1 provides an overview of mean population size, recorded changes in investment, treatment access and successful engagement in treatment for areas represented in the survey compared to areas not represented. Independent samples *t*-tests showed no significant differences between respondents and non-respondents, in population size, deprivation quintile, reported (dis)investment in substance use services (17), or treatment numbers (18) between 2013/14 and 2018/19. However, responding local authorities experienced larger declines in the number of people in alcohol treatment, compared to non-respondents (77.97 (35.56) $t(148)=2.193$ $p=.030$). Rates of missing data varied between 0% and 20% but no attempt was made to estimate missing values.

Table 1: Overview of mean changes in investment and treatment numbers between 2013/14 and 2018/19 for all local authorities invited to participate, including both responding authorities and non-respondents

	All invited	Respondents	Non-respondents	t test p value
Total	150	83	67	
Change in investment in alcohol and drug treatment services ^a	-£1,408,260 (1800413)	-£1,494,878 (1744030)	-£1,300,957 (18755720)	.514
<i>Disinvested</i>	135 (90%)	75 (90%)	60 (90%)	.498
Mean value of disinvestment £	-£1,702,117 (1,568,824)	-£1,784,263 (1,463,586)	-£1,599,435 (1,698,199)	
<i>Increased investment (SD)</i>	15 (10%)	8 (10%)	7 (10%)	.965
Mean increased value of investment £ (SD)	£1,236,454 (1,616,973)	£1,218,102 (1,917,493)	£1,257,428 (1,345,437)	.810
Change in access to treatment ^b				
Substance use	-221 (376)	-267 (405)	-165 (330)	.099
Alcohol	-106 (219)	-141 (229)	-63 (199)	.030
Drugs	-115 (202)	-126 (218)	-102 (180)	.473
Change in access to treatment (new) ^b				
Substance use	-105 (262)	-129 (298)	-76 (209)	.211
Alcohol	-84 (168)	-107 (184)	-54 (142)	.054
Drugs	-22 (129)	-22 (145)	-21 (108)	.965
Change in successful completions ^b				
Substance use	-87 (183)	-105 (213)	-65 (134)	.188
Alcohol	-44 (117)	-60 (135)	-26 (86)	.078
Drugs	-43 (87)	-45 (98)	-40 (72)	.687
Change in successful completions and not return for 6 months ^b				
Substance use	-72 (173)	-86 (207)	-54 (119)	.263
Alcohol	-36 (111)	-49 (131)	-20 (79)	.112
Drugs	-35 (84)	-37 (97)	-34 (64)	.838
Mean population size per local authority (SD)	300,198 (227,437)	312,598 (233,099)	284,838 (220,996)	.459

^aafter adjusting for inflation (RPI, 2013 baseline year)

^bas per NDTMS

Treatment budgets

Challenges

Most respondents reported overall disinvestment from treatment for substance use disorders since 2013/14 (82%, 67/82). Among those who reported disinvestment, 74% (42/57) cited the *reduction in public health grant funding*, 68% (39/57) *competing pressures within the local authority environment* and 58% (29/57) a *loss of additional funding streams* as the main drivers of disinvestment. Sixty-seven respondents reported a combined loss of 82 additional funding streams (mean of 1.6 per respondent), from Public Health England capital funding, Clinical Commissioning Groups, Police and Crime Commissioners, the Home Office, other local authority funding and “other” sources. These losses were described as contributing to overall disinvestment from treatment services, with the loss of Home Office funding most frequently cited (72% of those that lost Home Office funding). Also relevant to budget considerations, 69% (44/64) identified *prescribing costs* as the second biggest commissioning challenge.

Opinions were divided about the effects of local authority support for the alcohol and drug treatment agenda. This included an equal split (each: 40%, 21/52) of agrees and disagrees about a *lack of leadership support* driving disinvestment but only 29% (15/52) agreed that a *lack of elected member engagement* had driven disinvestment. A

third (21/64) agreed there had been *improved prioritisation* of the agenda and 36% (23/64) disagreed. Thirty-five percent agreed (18/52) that *de-prioritisation of the agenda* had driven disinvestment and 40% (21/52) disagreed.

Protective factors

Only three (<4%) commissioners reported an overall increase in investment since 2013/14, identified drivers were the *need to expand service provision* (1/3), *increased prioritisation* of the alcohol and drug agenda (1/3) and *increased demand for treatment* (1/3). Of all respondents, 55% (34/66) reported maintained or increased funding from Police and Crime Commissioners. This was frequently cited as helping to maintain investment in treatment or mitigate the effects of disinvestment. The addition of Public Health England funding was reported to have *increased overall investment* for four local authorities. Of the 11 (14%) respondents who reported that investment stayed about the same, 91% cited *leadership support*, 91% *elected member support*, and 64% *partnership support* as protective factors. *Maintained prioritisation of the agenda* was identified as a positive commissioning development for 47% (30/64) of areas whilst only 20% (13/64) did not agree.

Commissioning practices

Hindering factors

Ninety-five percent (60/63) identified *protecting funding from cuts* and 59%

(38/64) *insufficient staff resource* as the biggest commissioning challenges (11%, 7/64 disagreed) (full results in Table 2). In terms of insufficient staff resource, alcohol and drug strategy and commissioning teams were reported as having reduced significantly in size, from an average of 4.61 (SD 3.93) whole time equivalent staff in 2013/14 to 1.97 (SD 1.15) in 2018/19 (-58% $t(55)=-5.607$ $p<.001$).

Procurement activity

Ninety-seven percent of commissioners (68/70) reported that their respective authority had completed a combined total of 275 procurement exercises (mean 3.5) since 2013/14; most frequently for community alcohol (84%, 59/70), community drug (83%, 58/70) and community recovery (63%, 44/70) services. However, only 29% (24/83) re-tendered their residential rehabilitation service(s) between 2013/14 and 2018/19.

Participants were given a multiple-choice question regarding the main driver(s) of procurement activity for each service modality (or type). The survey revealed that less than half of procurement activity was driven by the *need to reform services*: 48% (31/65) for community alcohol services and 33% (21/65) for community drugs services. Procurement of community alcohol and drug services was primarily driven by the want to *integrate service provision* at 62% (n=40/63) and 63% (n=39/63) respectively. In contrast, *service reform* was a driver of

procurement activity: 40% (26/65) for community recovery services and 29% (9/65) for inpatient detoxification provision. Rarely, was the *legal requirement to tender* cited as the main driver of procurement.

Changed commissioning practices

Many changes in the way services had been contracted were reported (Table 2). In terms of positive changes reported by commissioners, 69% (44/64) identified a *reduction in the number of contracts to manage and extended lengths of treatment contract*. In a freetext response to an option to include a change in commissioning practice that they felt had been particularly positive, one local authority provided an example of securing cabinet approval for a 25-year contract for community alcohol and drug services. Other examples included improved service provider accountability, including the transfer of some contract management responsibilities, such as needle exchange and prescribing budgets, to the main community providers. Four fifths of commissioners identified *improved relationships with providers* as a positive commissioning development since 2013/14.

Table 2: Commissioning since 2013/14: Most positive developments and biggest challenges

	Total number of responses	Combined agrees	Combined disagrees	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Does not apply
<i>Most positive commissioning developments locally</i>									
Improved relationships with provider(s)	64	52 (81%)	2 (3%)	20	32	9	1	1	1
Reduced number of contracts to manage	64	44 (69%)	5 (8%)	16	28	11	4	1	4
Extended the lengths of contracts	64	44 (69%)	9 (14%)	14	30	9	7	2	2
Improved contract monitoring	63	40 (63%)	5 (8%)	12	28	17	3	2	1
Improved understanding of local need	64	38 (9%)	9 (14%)	12	26	17	6	3	0
Maintained prioritisation of agenda	64	30 (47%)	13 (20%)	4	26	20	11	2	1
Transfer of some contracts to community provider to manage	62	62 (45%)	8 (13%)	5	23	14	7	1	12
Improved leadership support	63	63 (43%)	9 (14%)	6	21	25	6	3	2
Improved prioritisation of agenda	64	64 (33%)	23 (36%)	5	16	19	19	4	1
Other ^a	5	3 (60%)	0 (60%)	2	1	1	0	0	1
<i>Biggest commissioning challenges locally</i>									
Protecting funding from cuts	63	60 (95%)	0 (0%)	41	19	3	0	0	0
Increased prescribing costs	63	44 (70%)	7 (11%)	18	26	12	6	1	0
Insufficient staff resource	64	38 (59%)	7 (11%)	15	23	19	5	2	0
Securing support to advertise sufficiently long-term contracts	62	34 (55%)	16 (26%)	11	23	12	15	1	0
Reduced competition in the provider market	63	34 (55%)	17 (27%)	7	27	12	14	3	0
Increased dispensing costs	60	30 (50%)	7 (12%)	8	22	22	6	1	1
Lack of national support and guidance	63	27 (43%)	23 (37%)	7	20	13	21	2	0
Measuring the impact and success of treatment	62	25 (40%)	28 (45%)	4	21	9	25	3	0
Understanding of need	63	23 (37%)	25 (40%)	4	19	15	21	4	0
Lack of leadership support	63	20 (32%)	19 (30%)	7	13	24	16	3	0
Other ^b	4	3 (75%)	1 (25%)	1	2	0	0	1	0

^a "Other" positives included 25 year young people's service contract, improved outcomes, improved support for children affected by parental substance use, increased flexibility and responsiveness of services, improved integration and accessibility, alignment of treatment services to domestic and sexual violence and abuse services

^b "Other" challenges included siloed systems, referencing contention between drug treatment and community pharmacy costs, difficulties in engaging 'hard to reach', local authority understanding of agenda, lack of operational support, lack of regional support, de-prioritisation by Police and Crime Commissioner

Treatment provision

Among those commissioners responding on behalf of local authorities where disinvestment had occurred, only 16% (9/57) agreed that *the savings had been realised without affecting service delivery* whilst 70% (40/57) disagreed. Commissioners identified challenges impacting people affected by dependence, including *changes to mental health services* (53%, 35/65) and *changes to the criminal justice system* (46%, 30/65). These changes were rated as having made treatment engagement more difficult. Only 38% (24/63) agreed that there had been an *improved focus on early intervention* and 72% (47/65) agreed that people were *not engaging early enough* (Table 3). Commissioners thought that *welfare reform* (43%, 28/65), *changes to mental health services* (39%, 25/65) and *changes to the criminal justice system* (32%, 21/65) were making it more difficult for people to successfully complete treatment. However, 89% (57/64) also felt that treatment systems had become *easier to navigate* and that *support for people in recovery* had improved.

Table 3 illustrates all responses to questions about positive developments, and biggest challenges, in local service provision. Over 60% (37/60) felt that there had been improved promotion of treatment services and almost three quarters (57/64) described *service integration* as a positive. When asked how services were structured,

most (92%, 60/65) reported that their adult alcohol and drug treatment services were now integrated. This included 75% (45/60) reporting a change to integrated provision since the transfer of public health to local authorities in 2013/14.

Table 3: Service provision: Most positive developments and biggest challenges since 2013/14

	Total number of responses	'Strongly agree' and 'agree'	Combined disagrees	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Does not apply
<i>Most positive service provision developments locally</i>									
Services easier to navigate	64	57 (89%)	3 (5%)	18	39	4	3	0	0
Improved support for people in recovery	64	57 (89%)	3 (5%)	19	38	4	3	0	0
Improved partnership working	64	53 (83%)	3 (5%)	18	35	8	3	0	0
Integration of alcohol and drug treatment services	58	52 (71%)	8 (14%)	17	24	9	8	0	3
Improved support for people with complex needs	62	41 (66%)	7 (11%)	11	30	14	6	1	0
Change in service provider	60	39 (65%)	10 (17%)	4	35	11	8	2	2
Improved promotion of services	60	37 (62%)	8 (13%)	6	31	15	7	1	0
Improved quality of treatment	63	38 (60%)	7 (11%)	7	31	18	6	1	0
Increased group work	62	30 (48%)	15 (24%)	6	24	17	12	3	0
Services more attractive to people affected by drug dependence	61	29 (48%)	6 (10%)	5	24	26	6	0	0
Improved use or availability of community detoxification	63	29 (46%)	18 (29%)	10	19	16	16	2	0
Increased diversity in socio-demographics of people accessing treatment	62	28 (45%)	12 (19%)	5	23	22	11	1	0
Improved geographical coverage	62	27 (44%)	10 (16%)	4	23	25	6	4	1
Services more attractive to people affected by alcohol dependence	62	24 (39%)	22 (35%)	4	20	16	17	5	0
Improved focus on early intervention	63	24 (38%)	27 (43%)	2	22	12	24	3	0
Increased community provision via other services	61	23 (38%)	18 (30%)	6	17	20	18	0	1
Improved links with the NHS	63	12 (19%)	19 (30%)	1	11	32	15	4	0
Reduced caseloads	62	7 (11%)	44 (11%)	3	4	11	21	23	0
Other	3	2 (67%)	0 (0%)	2	0	1	0	0	0
<i>Biggest service provision challenges locally</i>									
Increasing complex needs	65	65 (100%)	0 (0%)	33	32	0	0	0	0
Ageing treatment population	66	57 (86%)	2 (3%)	19	38	7	2	0	0
Increased caseloads	66	53 (80%)	7 (11%)	17	36	6	7	0	0
Not engaging early enough	65	47 (72%)	4 (6%)	14	33	14	4	0	0
Reduced one to one time with treatment population	65	39 (60%)	13 (20%)	10	29	13	13	0	0
Alcohol and drug services workforce turnover	66	37 (56%)	9 (14%)	11	26	20	9	0	0
Change in drug use	64	35 (55%)	13 (20%)	6	29	16	13	0	0
Services not attractive to alcohol treatment population	65	35 (54%)	13 (20%)	9	26	17	11	2	0
Weakened links with NHS	64	29 (45%)	21 (33%)	9	20	14	21	0	0
Reduced focus on early intervention	65	26 (40%)	19 (29%)	12	14	20	15	4	0
Integration of alcohol and drug treatment services	22	7 (32%)	9 (41%)	1	6	6	9	0	2
Weakened partnership working	64	17 (27%)	36 (56%)	1	16	11	31	5	0
Reduced referrals from agencies	64	15 (23%)	31 (48%)	3	12	18	29	2	0
Reduced diversity in socio-demographics of people accessing support	64	12 (19%)	22 (34%)	3	9	30	21	1	0
Reduced geographical coverage	62	8 (13%)	35 (56%)	0	8	19	33	2	2
Services not attractive to drug treatment population	64	7 (11%)	34 (53%)	0	7	23	32	2	0
Other	2	1 (50%)	0 (0%)	1	0	1	0	0	0

While residential rehabilitation and inpatient detoxification on average received larger budget cuts, all types of treatment were reported to have experienced budget cuts than budget increases (Figure 1). The reported budget cuts to contracts were not substantially higher for any of the modalities. Services most likely to have experienced any increases in funding were community recovery services and hospital alcohol liaison teams.

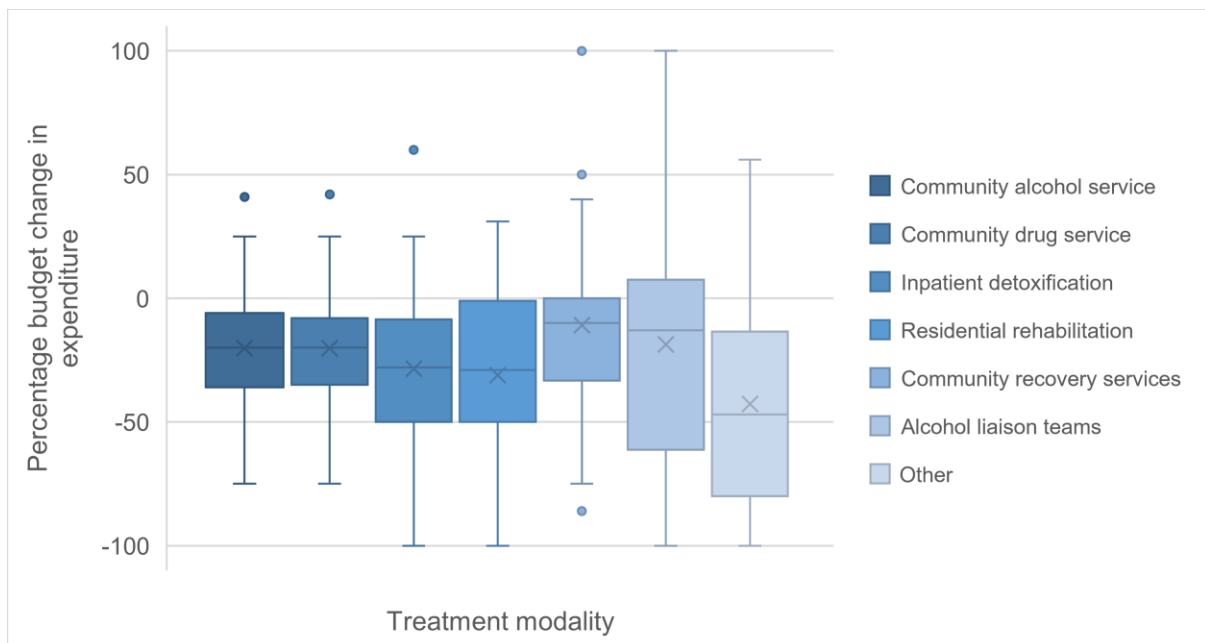


Figure 1: Box and whisker plot showing reported percentage changes in investment by treatment modality

All commissioners reported *increasingly complex needs* and 86% (57/66) an *ageing treatment population* as the biggest challenges facing services and 80% (53/66) also identified *increased caseloads*. However, 60% (38/63) reported *improved quality of treatment* and some examples of positive developments in service provision were shared, including improved safeguarding, improved focus on employability skills, and the development of a Community Interest Company to provide Community Recovery Services. There were also some examples of improved support for people with more complex needs within the treatment population, including the *Blue Light Project* (an initiative aimed at supporting and motivating 'high impact' dependent drinkers) (19) and examples of segmentation of the treatment population to develop a more tailored response according to need.

There was a mixed response to questions about changes in partnership working. Most agreed (83%, 57/64) that there was *improved partnership working* but 45% (29/64) agreed that there were *weakened links with the NHS* (33%, 21/64 disagreed).

Qualitative insight into disproportionate alcohol treatment declines

Thirty-five participants provided responses to the question seeking view about the national

trend of significant declines in alcohol treatment numbers despite small disinvestment. Four broad themes were identified. First, commissioner regularly referred to a hindering legislative and policy context, including references to the legal status of alcohol and its cultural acceptability, a powerful alcohol industry, and limited national strategic support:

"Alcohol services have always been underfunded so it may be that cutting such services even more has a disproportionate impact"

Second, commissioners described integrated alcohol and drug treatment services as being less appropriate for people with alcohol use disorders:

"I suspect some of disinvestment is hidden and increasingly alcohol and drug services have been integrated and funding may have switched to drug service as costs are more fixed (prescribing, medical professional etc.) The move to integrated services has not serviced alcohol users well as they are put off presenting to what are essentially drug services"

This perceived stigma was supported by responses to the question about differences in service attractiveness for people with alcohol or drug use disorders (Table 3). Furthermore, commissioners expressed a concern that the integration of services (including budgets), may have resulted in a diversion of 'alcohol' budget to subsidise (typically more expensive) drug treatment.

Third, commissioners reported that services may were not meeting the needs of the alcohol treatment population, with references to the loss of early intervention, alcohol specialists from the treatment workforce, and reduced outreach support:

“the service model is incompatible with the general population accessing treatment and recovery, being focused, by insufficient funding, and stigma into building that are unfit for purpose and staffed by people who are ill-equipped to deal with the levels of harm and dependency which currently do access”

Finally, commissioners reported fragmented systems. This included reports of weakened partnerships and relationships resulting in loss of additional delivery arms, including for example, hospitals and primary care:

“there is a significant delay in identification of alcohol as problematic for individuals, more work with primary and secondary care partners may help in managing this but locally and nationally there have been reports of decreasing confidence in clinicians to address issues with alcohol with their patients.”

Table 4 (Appendix A, p124) provides additional illustrative quotes for each theme.

DISCUSSION

This research improves understanding of the context and impact of recent disinvestment from alcohol and drug treatment services in England. From a commissioner perspective, multiple factors have contributed to the

availability and effectiveness of alcohol and drug treatment services during a period of significant and sustained disinvestment, confirming concerns previously raised by substance use treatment stakeholders (8,9,20,21).

Challenges include the loss of additional funding streams and variation in senior and political support for the agenda. This is consistent with an English study of smoking cessation services, which concluded that political support for the agenda had mitigated, but not removed the risks, of disinvestment (22).

This study has identified a significant reduction in the number of the local authority staff responsible for the alcohol and drug strategy and commissioning (9), and the protection of budgets as very challenging. Furthermore, despite improved relationships with service providers, the survey provided evidence of weakened broader stakeholder relationships, some of whom are key to broader policy to reduce harm (23–25).

This study provides a greater understanding of commissioning practices in a context of disinvestment (9,26). Many areas have sought to limit the direct impact on frontline services, reducing the number of independent treatment-related contracts, integrating treatment provision, and established ways to achieve more for less, opting to replace expensive inpatient options

with community-based alternatives. However, this study builds on previous reports that the process of re-tendering itself (reported to be as frequent as every three years), results in sustained negative impact (8,9,12,26–29).

Whilst 60% of commissioners reported improved quality in service provision, this study provides further evidence that the reduction in the available funding for alcohol and drug treatment is perceived to have hindered the availability and effectiveness of treatment services in England (8,9,20,26,29,30). Simultaneous to fewer people engaging in treatment, reports of increased caseloads and fewer one-to-ones indicate fewer frontline staff. Yet, the people engaged in support are described as ageing and increasingly complex in terms of physical and health needs. With broader policy changes, this could mean that the more vulnerable groups are being disproportionately affected by changes to treatment provision (12,31,32).

Last, this study has provided evidence to better understand the scale and effects of alcohol and drug treatment service integration, particularly in relation to alcohol treatment numbers (14,26). This survey has identified that there has been a recent large-scale move to integrated community alcohol and drug services. Based on the examples provided, this appears to have resulted in an

interchangeable use of alcohol and drug treatment budget, a workforce which is described as less skilled to support alcohol dependence and a treatment provision which has reduced its appeal to the alcohol treatment population.

Limitations of the study

The inclusion of commissioners *only* as participants limits the breadth of experience captured by the survey. However, it was designed to be sequential to a qualitative study of commissioners, to measure the extent to which previous findings were shared by a larger sample, therefore enabling a deeper understanding of these stakeholders' perspectives. A larger response rate would have improved the statistical power of the analysis and generalisability of the results to England's alcohol and drug treatment commissioners. This would have enabled us to ascertain whether the observed factors, and differences between local authorities, were of statistical significance. As commissioners were only able to provide one date for re-tendering per modality, it is likely that the frequency of activity is underestimated. Due to the cross-sectional nature of the survey, assessing the sequence of events and causal associations was not possible.

Implications for policy

In a context where overall budgets are insufficient to meet rising demand on

statutory services, the unprotected status of alcohol and drug treatment budgets are contributing to significant cuts to substance use prevention and treatment budgets. At a local level, this study provides strategists and policy makers with evidence of ways in which the negative impact of disinvestment can be moderated but that ultimately the disinvestment between 2013/14 and 2018/19 has reduced the availability and hindered the quality of alcohol and drug treatment services in England. This evidence could be used to enable future national strategy to set priorities based upon an accurate baseline. Given the Government announcement of additional funding for drug treatment (33), this study provides an important baseline to inform how the funding should be spent. The disinvestment from drug treatment appears to have impacted on the reach and quality of alcohol treatment. If policy makers wish to increase engagement in, and effectiveness of, alcohol treatment, the protections of alcohol treatment funding within an integrated provision requires consideration. Furthermore, previous research has indicated that re-tendering processes destabilise provision and this research has identified that activity is frequent. This, alongside sustainability, should be considered in any decisions regarding changes in service provision resulting from increased investment.

Future research

Further research should seek to incorporate a broader range of stakeholders, including people with substance use disorders, treatment workforces and wider stakeholders. This may broaden and enhance understanding of the effects of disinvestment and identify additional factors contributing to reduced treatment engagement and effectiveness. Further studies could examine the impact of service developments perceived as good practice, to help better understand the effectiveness of newer models of care and therefore support commissioning decisions. A shortened version of this survey could be repeated every three to five years to help understand differences over time, against an evolving policy landscape. This type of survey could be reproduced in other countries which have faced similar financial pressures within treatment for substance use disorders. This could ascertain whether experiences and perspectives are more widely shared by commissioners or provide insight into other ways in which harm can be moderated. This seems especially important given that reducing the harm of alcohol and drugs remain global priorities.

CONCLUSION

A large sample of commissioners have confirmed continued and additional financial pressures which have driven substantial

changes in the commissioning and provision of alcohol and drug treatment in England. Widespread integration of alcohol and drug treatment services are perceived as contributing to a less attractive, and less effective, support offer for people with alcohol use disorders. Commissioners have pursued options to limit the impact of budget cuts but report an unavoidable impact on the availability and effectiveness of treatment services in England.

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Phase Three Paper: Appendix A

Table 4: Illustrative quotes from survey against themes identified about the disproportionate impact of disinvestment on alcohol treatment

Theme	Illustrative quote
A hindering legislative and policy context	<p><i>“Alcohol is socially acceptable, cheap, readily available and legal and therefore comes with different challenges to drug treatment”</i></p> <p><i>“lack of national alcohol strategy and ability to make wider policy decisions, such as minimum unit pricing”</i></p> <p><i>“I think the acceptability of alcohol use has increased and therefore the threshold of dependence has increased for hospital and primary care professionals before they refer”</i></p> <p><i>“the demise of the National Treatment Agency which oversaw the quality of treatment provided and research”</i></p>
The integration of alcohol and drug services is not working for those in need of alcohol support	<p><i>“If you reduce the budgets the remaining places get blocked up with heroin users so leaves less places for alcohol clients”</i></p> <p><i>“I think the integration of drug and alcohol services has made alcohol treatment less attractive to alcohol user because of the increased stigma of entering a drug service. They simply do not identify with the people they see in there and they do not see them as places to get help”</i></p> <p><i>“Since the integration of services many experienced alcohol recovery workers have been lost from the industry as they were reluctant to take drug users onto their caseload”</i></p>
Support services not appropriate to need	<p><i>“We reached the stage many years ago where even a small disinvestment could equate to losing a worker, their expertise and influence, and the ripples from this can be seen through service users dropping out, quality of groups dropping due to staff being spread too thinly etc.”</i></p> <p><i>“Treatment population becoming more complex, with wider complex needs, means the investment is used on fewer people but more intense work is required to deliver a successful outcome”</i></p> <p><i>“the amount paid in doesn’t allow for more than about 18% of the predicted at-risk population to be assessed and treated”</i></p>
Fragmented systems	<p><i>“really requires better support from NHS services – Primary care / hospital / mental health”</i></p> <p><i>“Fragmented system, lack of sufficient alcohol care teams in hospitals, cuts to mental health funding”</i></p>

Phase Three Paper Supplementary information: Survey tool

By agreeing with the following statements, you are agreeing to participate in the project as per the information provided in the participant information sheet

By taking part in the project

Please tick each box to confirm consent

- I confirm that I am responsible for the commissioning of alcohol and drug treatment services for an English Local Authority.
- I confirm that I have read and understood the participant information sheet explaining the above research project and I have had the opportunity to ask questions about the project.
- I agree to take part in the project. I understand that taking part in the project will involve completing an online questionnaire.
- I understand that my participation is voluntary and that I am free to withdraw without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any question or questions, I am free to leave it blank.

How my information will be used during and after the project

Please tick each box to confirm consent

- I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that the research team will ensure I cannot be identified based on my answers (for example, by including quotes that provide information that might identify my place of work) unless I provide specific consent.
- I understand my email address will not be revealed to people outside the project.
- I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.
- I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs only if they agree to preserve the confidentiality of the information as requested in this form.

This section includes questions about local total changes in investment in alcohol and drug treatment services since 2013/14

How best describes the **overall change in investment** in adult alcohol and drug treatment services in your area since 2013/14?

Please select one response

- Increased investment
 - Decreased investment
 - Stayed about the same
-

What would you say were the main reasons for the increase in investment?

Please select one option on each line

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Gained additional funding stream(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Need to expand service provision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased prioritisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased demand for treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased costs in service delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would you say were the main reasons for the decrease in investment?

Please select one option on each line

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Reduction in line the public health grant reduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loss of funding stream(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competing pressures within the local authority	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced demand for treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De-prioritisation of agenda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of leadership support for agenda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of engaged from elected members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Savings were realised without effecting service delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

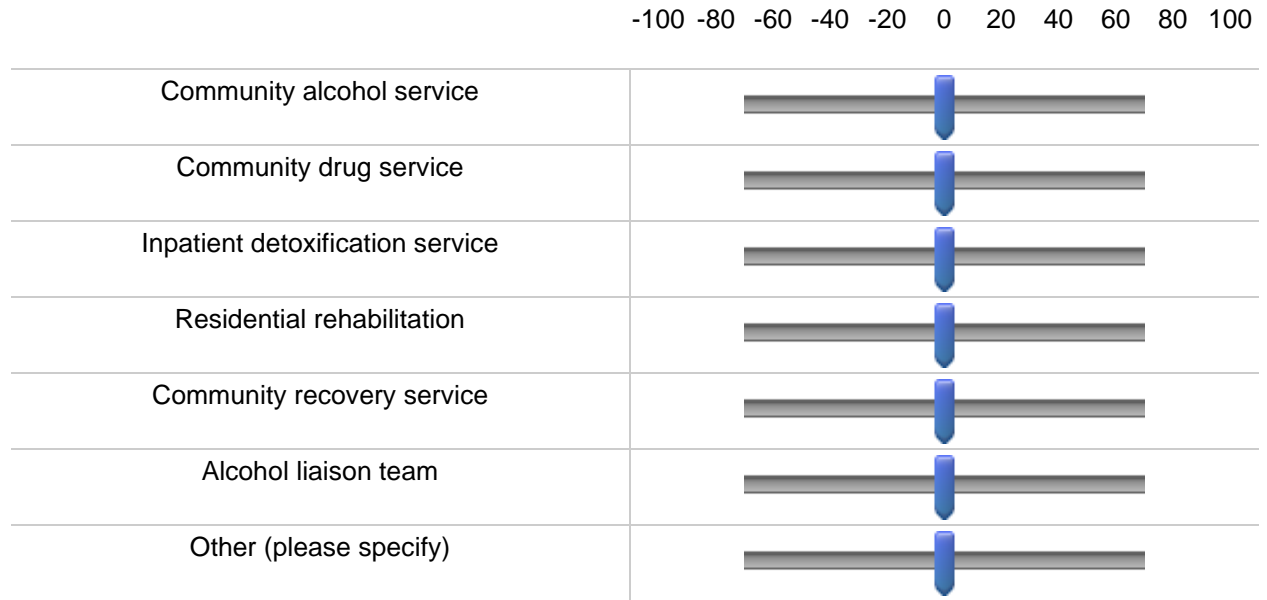
What would you say were the main reasons the investment was maintained?

Please select one option on each line

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Leadership support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Elected member support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local authority strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partnership support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

By approximately what **percentage** has **investment in each of the following services changed** since 2013/14?

Please slide long the scale on each line or leave at 0% if no change. This does not need to be exact



Most local authorities began receiving a Public Health grant on 1 April 2013. Since then, please can you describe **any changes to other funding streams**? How would you say this impacted on the overall budget?

Please select one option in each column against each funding streams applies

	Lost, gained or maintained?				How did this change effect the overall alcohol and drug treatment budget?				
	Lost/reduced	Gained	Maintained	Never had it	Decreased it	Mitigated other disinvestment	Helped to maintain it	Increased it	Made no difference
PHE capital funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home Office funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Police and crime commissioner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical commissioning group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other local authority funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This section includes questions about procurement and commissioning activity that has taken place since 2013/14

Have you completed any **procurement exercises** for adult alcohol and drug treatment services in your area since 2013/14?

Please select one response

Yes

No

For **which services** have you tendered?

Please select all that apply and provide the date that each service went live (dd/mm/yyyy)

- Community alcohol service _____
- Community drug service _____
- Inpatient detoxification service _____
- Residential rehabilitation _____
- Early intervention service _____
- Community recovery service _____
- Hospital alcohol liaison team _____
- Other (please specify) _____

What would you say were the **main drivers** for those **procurement** activities?

Please select all that apply against each of the services you have procured

	To reform service provision	To integrate services	To reduce the number of contracts	To realise budget savings	To change the payment schedule	Legal requirement to procure	Other reason than listed
Community alcohol service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community drug service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inpatient detoxification service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential rehabilitation service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Early intervention service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community recovery service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other service (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As you selected "other reason" for the main drivers of procurement, please give reason(s).

What do you feel have been the most **positive developments** locally in terms of **commissioning** of alcohol and drug treatment services in your area since 2013/14?

Please select one option on each line

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Reduced number of contracts to manage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transfer of some contracts to community service provider to manage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved contract monitoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended the length of contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved relationships with provider(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved leadership (in-house) support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved prioritisation of alcohol and drug agenda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintained prioritisation of alcohol and drug agenda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved understanding of local need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You now have an opportunity, should you wish, to provide a brief example of a change in **commissioning practice** that you feel has been **particularly positive**.

If you have given an example, please advise if you would be happy for it to be shared as a brief case study

- Yes, and the local authority identified
 - Yes, but the specific local authority not identified
 - No, but I'm happy for it to be used in the study for analysis
-

What do you feel have been the **biggest challenges** locally in terms of the **commissioning** of alcohol and drug treatment services since 2013/14?

Please select one option on each line

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Protecting funding from cuts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Securing support to advertise sufficiently long-term contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced competition in the provider market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insufficient staff resource to manage strategy and commissioning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased prescribing costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased dispensing costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measuring the impact and success of treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of leadership support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of national support and guidance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You now have an opportunity, should you wish, to provide a brief example of a change in **commissioning practice** that you feel has been **particularly challenging**.

If you have given an example, please advise if you would be happy for it to be shared as a brief case study

- Yes, and the local authority identified
- Yes, but the specific local authority not identified
- No, but I'm happy for it to be used in the study for analysis

This section includes questions about alcohol and drug treatment service provision in your locality

Are your **community adult alcohol and drug treatment** services integrated? *(This means that services are part of the same contract and delivered by the same staff in the same buildings)*

Please select one of the following

- Yes, and they have been since before 2013/14
 - Yes, but they have changed to integrated since 2013/14
 - No, and they never have been
 - No, but they have been previously
-

Are your community **adult alcohol and drug treatment** services integrated with community **children's** alcohol and drug treatment services? *(This means that services are part of the same contract)*

Please select one of the following

- Yes, and they have been integrated since before 2013/14
 - Yes, but they have changed to integrated since 2013/14
 - No, and they never have been
 - No, but they have been previously
-

What do you feel have been the most **positive developments** in terms of the **provision** of alcohol and drug treatment services locally since 2013/14? **Please select one option on each line**

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Improved geographical coverage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased community provision via other services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services easier to navigate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integration of alcohol and drug treatment services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved use or availability of community detoxification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved support for people in recovery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved partnership working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved quality of treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in service provider	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved links with the NHS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved focus on early intervention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved promotion of services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced caseloads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase in group work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services more attractive to people affected by alcohol dependence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services more attractive to people affected by drug dependence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved support for people with complex needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased diversity in sociodemographics or people accessing treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You now have an opportunity, should you wish, to provide a brief example of a change in **service provision** that you feel has been **particularly positive**.

If you have given an example, please advise if you would be happy for it to be shared as a brief case study

- Yes, and the local authority identified
 - Yes, but the specific local authority not identified
 - No, but I'm happy for it to be used in the study for analysis
-

What do you feel have been the **biggest challenges** in terms of the **provision of alcohol and drug treatment services** locally since 2013/14?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Does not apply
Integration of alcohol and drug treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced geographical coverage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced 1:1 time with treatment population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased caseloads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced focus on early intervention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol and drug service workforce turnover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
prior treatment population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase in complex physical health needs of treatment population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People not engaging in treatment early enough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced diversity in sociodemographics of people accessing support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced referrals into treatment from agencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services not attractive to alcohol treatment population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services not attractive to drug treatment population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weakened partnership working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weakened links with NHS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You now have an opportunity, should you wish, to provide a brief example of a change in **service provision** that you feel has been **particularly challenging**.

If you have provided an example, please advise if you would be happy for it to be shared as a brief case study

- Yes, and the local authority identified
- Yes, but the specific local authority not identified
- No, but I'm happy for it to be used in the study for analysis

How do you **measure the positive impact** of alcohol and drug treatment services?

Please tick all that apply

- NDTMS outcome measures
 - Case studies
 - Recovery readiness
 - Reduced impact on children's social care
 - Reduced impact on adult's social care
 - Reduced attendances or lengths of stay at hospital
 - Other (please specify) _____
-

How, if at all, do you feel the following areas have impacted on people affected by alcohol and drug dependence since 2013/14?

Please select one option on each line

	Made it easier for people to engage in alcohol and drug treatment services	Made it easier for people to successfully complete treatment	I do not feel that it has impacted	Made it more difficult for people to engage in alcohol and drug treatment services	Made it more difficult for people to successfully complete treatment
The welfare reform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to social housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to mental health services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to primary care practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to the criminal justice system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to education, employment, and training opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to local authority strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stigma of alcohol dependence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stigma of drug dependence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You now have an opportunity, should you wish, to provide a brief **example of a change outside of the commissioning practice or service provision of alcohol and drug treatment**, that you feel is particularly relevant to the alcohol and drug treatment population.

Please describe the change and its impact.

If you have given an example, please advise if you would be happy for it to be shared as a brief case study

- Yes, and the local authority identified
- Yes, but the specific local authority not identified
- No, but I'm happy for it to be used in the study for analysis

Over recent years there has only been a small amount disinvested from alcohol treatment but a significant decline in the number of people accessing, and successfully completing, treatment nationally. Please provide any thoughts you have as to why this might be the case?

If you have provided a response to the above question, please advise if you would be happy for this example to be shared as a brief case study

- Yes, and the local authority identified
 - Yes, but the specific local authority not identified
 - No, but I'm happy for it to be used in the study for analysis
-

For which local authority do you work?

Please list any other local authorities for which the responses you have provided in this survey represent

How many whole time equivalent (WTE) staff were involved in commissioning of, and strategy for, alcohol and drug treatment services in 2013/14 and in 2018/19?

- 2013/14 _____
 - 2018/19 _____
-

Part Three: Discussion and conclusion

7. Discussion

This thesis has provided evidence of the impact of disinvestment from alcohol and drug treatment services in England, between 2013/14 and 2018/19. The systematic review informed the refinement of the aims and objectives of this multimethod study. Secondary data analyses examined relationships between disinvestment, treatment variables and indicators of wider harm before two primary data collection phases examined the perceived effects on commissioning and service provision through the commissioner lens. In contribution to the literature I produced four manuscripts which have either been prepared, published, or submitted for publication and are incorporated into this thesis. This chapter discusses and interprets the composite study, focusing on: i) the main findings; ii) its contribution to the broader literature; iii) the strengths and limitations of the methodological approach; and iv) the implications and recommendations for future research and policy.

7.1. Summary of main findings

7.1.1. Systematic review

To better understand the evidence base, I undertook a systematic review of quantitative and qualitative evidence, searching bibliographic databases and grey literature. The review provided evidence of sustained disinvestment from alcohol and drug treatment in several countries, including England, and evidence of a concurrent decline in the quantity and quality of treatment provided. It identified a paucity of scientific evidence quantifying the impacts of disinvestment on alcohol and drug treatment service delivery and outcomes. It concluded that a stronger evidence base would enable informed policy decisions that consider the likely public health impacts of continued disinvestment. This review supported the development and refinement of a study design that has advanced the evidence base, via a three-phase multimethod approach.

7.1.2. Phase One: analysis of routine data

To examine trends in (dis)investment, treatment uptake and outcomes and wider harm, this phase matched and analysed routinely available administrative datasets. Analysis found that the significant loss of £212.2 million (-27%) from substance use treatment between 2013/14 and 2018/19 was related to fewer adults accessing treatment (including those new to treatment) and fewer adults successfully completing treatment (including those not returning to treatment within six months) (235). Analysis found substantial regional variation in investment and relative treatment engagement and successful completions. However, no significant associations were found between changes in investment and changes in alcohol-specific hospital admissions, alcohol-specific mortality, and drug-related deaths.

This phase identified substantial differences in budget changes for alcohol and drug treatment yet consistent and significant declines in all treatment variables during the period of study. Analysis of routine financial reports found a marginal 1% disinvestment from alcohol treatment expenditure but a 35% disinvested from drug treatment. Yet, percentage declines in people engaging in alcohol treatment were twice as high as drug treatment (19% versus 9%). Concurrently, there were significant increases in alcohol-specific hospital admissions (+9%), alcohol-specific mortality (+4%) and drug-related deaths (+24%).

7.1.3. Phase Two: semi-structured interviews with commissioners

Informed by the systematic review and the results from Phase One, a tailor-made topic guide supported telephone interviews with a purposive sample of 14 local authority-based alcohol and drug treatment commissioners. The interviews provided an in-depth understanding of commissioners' experiences and perspectives of the impact of changes in investment in adult alcohol and drug treatment services in England. Disinvestment was purported to be widespread and impacting negatively on treatment provision yet innovation in practice was thought to have moderated some harm. Concerns were raised by commissioners about the ability to maintain safe and effective services should budget cuts continue.

Thematic analysis of the transcripts identified four key themes. First, leadership support for the agenda was described as pivotal to investment decisions and commissioners spoke about the loss of dedicated substance use commissioning teams meaning they no longer had sufficient resource. Second, procurement activities were described as providing opportunities to achieve efficiencies in existing treatment provision and securing greater return on investment, but re-tendering processes were regularly described as disruptive. Commissioners gave examples of extending the lengths of contracts to provide some longer-term stability. Third, some developments in service delivery were framed as positive, including an increased focus on recovery, and enhanced person-centred approaches. However, commissioners said the negative effects of budget cuts on service quality were undeniable. This included a budget-led need to scale back the support offer, a loss of important partnership links, and reduced capacity. Commissioners described a move to integrated alcohol and drug treatment services and provided insight into how this may have disproportionately hindered the alcohol treatment population. Fourth, effects beyond commissioner control were described as creating a perfect storm for the most vulnerable. Simultaneous policy changes and the increasingly complex needs of the treatment population were thought to be contributing to a decline in treatment outcomes and an increase in related deaths.

7.1.4. Phase Three: national survey of local authority-based commissioners

Informed by the findings from the previous phases, a tailor-made online survey examined the generalisability of the interview findings and ascertained detail about aspects not yet fully explored by commissioners. Analysis of survey responses, representing 55% of local authorities, found that many of the experiences described at interview were shared by a much larger sample. Competing pressures within the local authority environment and the loss of multiple funding streams were identified as the main drivers of disinvestment, leading reductions across all treatment modalities. Resulting commissioning practices included frequent procurement exercises and the widespread integration of alcohol and drug treatment provision yet significantly reduced strategy and commissioning teams. Examples of progress were identified, including improved system navigation and increased support for those in recovery. However, whilst people accessing services were described as having increasingly complex needs, commissioners confirmed perceptions of increased caseloads and high staff turnover within the treatment workforce. Commissioners gave explanations as to the apparent disproportionate effect of disinvestment on alcohol treatment, including: the integration of support services resulting in hidden disinvestment from alcohol treatment, reduced accessibility, and a diminished offer for the alcohol treatment population. As described during interviews, leadership support for the agenda and the retention of specialist commissioners were described as protective factors for investment and less frequent re-tendering and investment in recovery services were thought to have moderated the negative effects of budget cuts.

7.1.5. Meta-inferences

When considered together, the results from each phase of the study provide an enhanced understanding of the context within which disinvestment has occurred. The results from all phases show that overall disinvestment from alcohol and drug treatment between 2013/14 and 2018/19 is likely to have exceeded the £212.21 million identified by routine financial reports. Despite commissioners describing percentage cuts proportionate to the reduction in Public Health Grant, my study identified a substantial difference. Furthermore, rising treatment costs (as identified by increasing prescribing costs) and the operational interchangeable use of alcohol and drug treatment money means that some disinvestment is hidden.

Any opportunities to achieve efficiencies within treatment provision appear to have been exhausted but there were examples of practices which may have helped to moderate the negative impact of re-tendering, including securing longer term contracts. The frequency and destabilising nature of re-tendering processes may have contributed to the significant

reductions in treatment access and successful completions identified in Phase One. The identified recent and widespread move to integrated alcohol and drug treatment services – as a method to moderate the negative effects of budget cuts – may help explain the significant reductions in alcohol treatment numbers identified in Phase One. This seems quite probable given the observed differences in modelling results when alcohol and drug variables were combined in Phase one and the concerns raised by commissioners in the following phases.

Despite some reports of good practice, alcohol and drug treatment services are no longer as accessible for people affected by substance use disorders compared with 2013/14. By 2018/19, fewer people were engaging in treatment (including those new to treatment), signalling barriers to support, particularly as estimated need has not reduced. Furthermore, integrated services were regarded by commissioners as less accessible for those affected by alcohol use disorders and there are reports of reduced referrals into treatment from partner organisations. Results from Phases Two and Three provide potential explanations for this: i) reduced capacity within treatment services to provide support, promote provision, or offer training in identification and brief advice; ii) partner organisations could have faced similar resource pressures meaning less capacity to identify people in need of support, offer advice and/or refer them into treatment; or iii) reduced capacity in the strategy and commissioning teams to develop pathways into treatment.

The initial cuts to treatment services were reported to have driven service improvement and a change in national policy drove an increased focus on recovery. However, alcohol and drug treatment policy were reported to not acknowledge the whole range of support needs of people with substance use disorders. The results suggest that there is now insufficient funding to provide the level and type of support required by those accessing services. The people engaged in support have more complex support needs and yet the caseloads of treatment practitioners have increased. Furthermore, integrated alcohol and drug treatment workforces may be insufficiently trained to provide alcohol treatment.

The impact of disinvestment, and the concurrent and resulting changes to policy, may have disproportionately affected people with co-morbidities and those living in poverty. This may have increased the number, or complexity, of support needs of people with substance use disorders and made it more difficult to successfully engage with treatment. The full relationship between disinvestment, changes to treatment effectiveness and resulting harm may take time to emerge.

7.2. Findings in the context of the broader literature

7.2.1. Investment

My study confirms a positive relationship between disinvestment and fewer people accessing, and successfully completing treatment. Treatment stakeholders had previously expressed concern about the effects of disinvestment on treatment numbers (163,177,221,222,260–265). Adjusting financial changes to account for inflation and asking commissioners about additional sources of funding outside of the Public Health Grant confirmed greater disinvestment than previously reported. This supports previous claims that financial reports are misrepresentative of whole investment (177). The 27% reduction in Public Health Grant investment in substance use treatment was disproportionate to reductions in the overall public health grant and my study identified that treatment budgets have not been compensated by any other increases in investment.

My study confirms previous reports of large variation in (dis)investment and treatment numbers (149,177,266). In terms of investment, however, it does not confirm previous reports of areas of highest need experiencing the greatest disinvestment (163,177,264). My study found evidence of significantly higher treatment number declines in the most deprived areas. This could link to commissioner concerns regarding vulnerable people being worse affected by policy changes. Previous studies have identified that disadvantaged groups suffer greater harm from substance use disorders (53,267) and my study provides some evidence that treatment engagement in more deprived areas appears more sensitive to budget cuts. As identified by research completed in the mid-2010s (221,268), initial disinvestment was perceived by commissioners as driving efficiencies and seek greater return on investment. However, my study found that persistent cuts have led to the reduced availability and a perceived reduced quality of services, confirming concerns previously raised by treatment stakeholders (221,222,261,263). The interviews with commissioners provided additional insight into ways in which they had attempted to prevent true disinvestment (153), including examples of changes in contracting and service provision to limit the direct impact on frontline delivery of services.

My study provides evidence of the importance of leadership and political support in investment decisions, similar to previous studies of disinvestment from public health services (222,261,262,265,269,270). The identified influence of a lack of leadership support in decisions to disinvest might have been expected, particularly given previous reports of competing demands on resources in a local authority environment, and previous reports of the public health grant being utilised to support other services, such as domestic abuse services (177,221,222,260,261,266).

7.2.2. Treatment quantity and quality

My study explored the nuances of changes in investment, changes in treatment numbers and their relationships, identifying patterns that have previously received limited attention. By examining the impact of disinvestment from alcohol and drug treatment simultaneously, it has provided new insights. The systematic review found that investment in alcohol treatment was described as permanently insufficient (149,163,221,264) and my study has found evidence of overall disinvestment affecting alcohol treatment provision. Phase One identified that the relatively low penetration rate of alcohol treatment has further reduced by 3% since 2013/14 (149): in 2018/19, <13% of the estimated 586,780 people in need of specialist treatment were engaged in treatment, versus 52% of the 313,971 estimated to be opiate and/or crack cocaine users. My study has provided evidence that reported changes in investment do not always result in proportionate changes in treatment engagement and effectiveness. Whilst overall expenditure has reduced, the proportion of Public Health Grant total spend on substance use treatment reported as invested in alcohol treatment has increased between 2013/14 and 2018/19, rising from 25% to 34%. However, this does not appear to have translated into improved engagement or effectiveness for alcohol treatment, offering important context to PHE's rapid inquiry into the fall in alcohol treatment numbers (175). The inquiry also identified concerns regarding insufficient funding and alcohol and drug service integration, and whilst the inquiry was launched in response to the decline in people newly entering alcohol treatment, my study found concurrent and continued reductions across all included substance use treatment variables. Previous studies have tended to examine alcohol and drug treatment separately, however, my study has shown it is important to consider the combined effects, particularly as we now know that most areas have integrated provision.

The sequential phases enabled deeper insight into this observed trend. The previously purported move to integrate alcohol and drug treatment services (15,37,50) was confirmed as widespread, and perceived as contributing to declines in alcohol treatment numbers. Treatment budgets have been used interchangeably to moderate the budget pressures resulting from significant drug treatment disinvestment and rising drug treatment costs which overall have contributed to a more basic treatment offer. This aligns to studies which have identified a propensity to focus on acute care, or maintenance, when faced with budget pressures (264,266,271,272). Furthermore, the described withdrawal of specialist components of treatment fits with previous studies that have referenced the role of drug treatment budget cuts, and resultant loss of trusted drug workers, in extra barriers to treatment for vulnerable groups (273).

The findings from my study provide new information regarding the budget cuts to all treatment modalities. Previous literature referred to concerns that cuts had most affected tier four services, including inpatient detoxification and residential rehabilitation (149). Phase Three confirmed that these modalities experienced the greatest percentage budget reductions but that they were not significantly higher than reductions to any other modality. In addition, commissioners spoke of a move from residential to community-based recovery services, in an attempt to provide intensive wrap-around support to more people. This observed difference could be explained by the timing of the studies: initially the focus was on return on investment and efficiencies, but once such options had been exhausted it has led to reductions across all types of treatment provision (153).

7.2.3. Commissioning practices

Previously, limited attention has been given to the reduction in the number of specialist commissioners responsible for substance use services (221) and broader public health services (262). My study found that parallel to largescale disinvestment between 2013/14 and 2018/19, there have been significant reductions (-58% $t(55)=-5.607$ $p<0.001$) to alcohol and drug strategy and commissioning teams within local authorities. In phases two and three commissioners reported having insufficient staff resource for the agenda, yet literature has identified the pivotal role of commissioners in project management, understanding need and ensuring services are fit for purpose (113,153,154). These losses may have also impacted on service effectiveness. For example, the benefits of integrated aspects of alcohol and drug treatment were described within the 2017 Drug Strategy (274) but to achieve this effective commissioning systems and a properly trained and supported workforce have been identified as imperative (149). Whilst the impact of reduced commissioning teams was not examined, it could be that this is contributing to the reduced effectiveness of treatment services.

7.2.4. Broader harm

Phase One was unable to confirm a positive relationship between disinvestment, rising alcohol-specific hospital admissions, or substance use related deaths but presented possible explanations for this (235). After completing all analyses, more evidence emerged confirming a continuing upward trajectory of alcohol and drug related harm in England. Phillips et al. (2020) concluded that the reduction in the number of people accessing specialist inpatient detoxification has resulted in hospital admissions for a primary or secondary diagnosis of alcohol withdrawal (275). The results of the Phillips et al. study are not directly comparable with phase one of my study as they looked specifically at the impact of the reduction in specialist inpatient detoxification on non-specialist hospital admissions for alcohol withdrawal (F10.3; one condition counted within alcohol-specific hospital admissions). Whilst Phillips et

al. found no overall increase in the combined inpatient detoxification and hospital admissions for alcohol withdrawal interventions – perhaps indicating no change in the incidence of withdrawal - they identified that local authorities' disinvestment from inpatient detoxification services had diverted the care, and associated costs, to the NHS. However, unlike my study, the analysis did not control for local authorities, nor changes in investment in specific modalities or a reduction in the overall number of people accessing treatment for alcohol use disorders. Phillips et al. suggested that their findings meant that those in need of specialist inpatient care have been disproportionately affected by the reduction in the use of inpatient detoxification. In contrast, my study identified that all modalities have experienced large budget cuts and that this disproportionate impact on people requiring alcohol treatment (and drug treatment) is not limited to inpatient support.

In May 2021, the Office for National Statistics published updated data on alcohol-specific deaths in England, reporting a statistically significant 19.6% increase compared with 2019. Furthermore, the gap between alcohol-specific death rates in the most deprived local authorities and the least deprived has continued to increase for males (276). Two studies by Roberts et al. explored access to community alcohol treatment and its relationship to alcohol-related hospital admissions in England (277,278). Focused on the same period, one study identified a significant relationship between disinvestment from alcohol treatment and an increased rate in alcohol-related hospital admissions (broad) (278). Whilst my study did not identify a relationship between disinvestment and alcohol specific hospital admissions, the Roberts et al. study was able to match individual-level data, making it more sensitive to changes in treatment access and successful completions. A qualitative study provided insight into a broader stakeholder perspectives, including alcohol treatment service users, providers and commissioners (277). Like my study, it identified challenges of budget cuts and re-tendering processes and complexities presented by stigma, reduced geographical presence and ability to appropriately support those with co-occurring mental ill health. The survey responses in my study provided some evidence of weakened links with the NHS, and the Roberts et al. study (277) cited additional complexities faced by NHS services in the referral of people with alcohol use disorders to non-NHS treatment providers. Furthermore, service users reported increased alcohol availability and affordability as contributors to rising alcohol-related hospital admissions (277).

My study has identified significant and broad impact of disinvestment. The many impacts of fewer people engaging in, or successfully completing, treatment on broader harm remain unknown. For example, there is substantial evidence that alcohol and drug treatment is effective at improving health and social outcomes (31,55–63) by reducing use, improving

physical and mental health, and preventing premature deaths (29,64–71). Furthermore, for those who engage, effective treatment can contribute to improved social functioning and relationships (72–74) and reduced criminality (6,75–77). Therefore, it seems reasonable to expect negative implications for the people not (or no longer) accessing support, their families and broader society (8,9). For families and peers of those negatively affected by someone else's use of alcohol and drugs, there could be inter-generational health and social implications which may take years to be understood (56).

7.2.5. Policy literature

In the last year, new policy relevant literature has emerged (93,277–279). A review of drug harm in the UK was commissioned by the Government and referenced increased harm and costs associated with the illicit drug market (279). This included an increase in crack cocaine use, substantial rises in serious violence attributable to county lines, a rise in “recreational” use of powder cocaine and a diversification in new psychoactive substances with increased use among the most vulnerable within the population. My study provides further important context: fewer people accessing drug treatment is not a reflection of reduced prevalence and it identifies additional challenges faced by some of most vulnerable drug users in England. Similar to previous literature and the findings from my study, the Black report (279) and the first report from the UK Government Recovery Champion (93) referenced the loss of specialism and the inability of services to meet the needs of an ageing and complex cohort of long term heroin users or other drug users. Furthermore, the part – and complete – withdrawal of non-treatment services, previously identified as pivotal in recovery from alcohol and drug dependence, have been identified as further hindering opportunities to sustain long term recovery (93,279). This may help to explain why reductions in successful completions have continued, despite commissioner reports of improvements in recovery-focused work within treatment services.

7.3. Methodological reflections

7.3.1. Strengths

The original aim and objectives of this study have been fully met. Each paper has made a novel contribution to science and the multimethod approach has further strengthened the study's contribution, aided by the combination, sequencing and triangulation of results. The original primary hypothesis was that disinvestment from treatment would be related to fewer people accessing and successfully completing treatment. This relationship was confirmed during Phase One but the sequencing of the following two phases added a richness and breadth to these findings leading to more comprehensive understanding of the impact of disinvestment.

A benefit of completing analyses after each phase and before commencing the next was that the results informed subsequent phases. Phase One was designed so that the results could inform the production of a summary of analysis to share with commissioners interviewed during Phase Two, providing an overview of new information regarding recent trends. The analysis undertaken in Phase One which identified different trends in (dis)investment and relative treatment numbers changes identified during Phase One analysis. Ensuring maximum variation in sampling for interview was important to gain insight into a breadth of experiences and perspectives (280), identifying positive and challenging experiences. Purposively selecting local authorities from each of the four groups into which there were divided, and different deprivation quintiles, enabled maximum variation in sampling. Reaching theoretical saturation, and the completion of thematic analysis, meant that the survey was tailored to capture whether their experiences reflected those of a larger sample of local authorities. This then allowed the integration of quantitative and qualitative data, generating more inclusive results.

The sequencing of data collection and analysis also provided opportunity to seek specific further detail regarded unanswered questions. For example, Phase One identified a disproportionate impact of disinvestment on alcohol treatment numbers but this received limited attention at interview. Therefore, a freetext question was incorporated to explore views. By focusing on the commissioner perspective within the sequential design, it enabled the exploration of factors deemed as important and relevant during interviews among those key stakeholders, before quantifying them via the survey. As it centres on those embedded within the context in which the results can be used, the usability of the study's results should be improved (281).

Arguably, the evidence produced by integrated results show that the impact of disinvestment on changes in treatment access, successful completions and broader harm are better understood through a mixed methods approach. For example, one of my main concerns about Phase One was the potential for the results to be misinterpreted or misconstrued, potentially jeopardising continued investment in treatment. Whilst relationships between disinvestment and treatment variables were found to be statistically significant, the beta coefficients – when translated into 'per person' effects – may appear small or be misunderstood as a direct return on disinvestment. To help mitigate this risk, the published paper encourages caution in interpretation and offers further explanations (235). Furthermore, the methods adopted in the following phase provided an enhanced understanding of factors which are perceived to have moderated or compounded changes in investment, treatment numbers and broader harm.

The 55% response rate to the survey was largely representative of all local authorities in terms of population size, recorded changes in investment and treatment numbers (Table one, Phase Three paper). On reflection, the survey results presented a more negative picture than the interviews. There could be several explanations for this: i) a simple matter of more time elapsing, and therefore greater exposure to negative effects; ii) the over-representation of areas that had experienced greater declines in alcohol treatment; iii) differences in the respondents' length of time in post (and therefore ability to accurately recall previous experiences; or iv) methodological differences. For example, perhaps the greater perceived anonymity of the survey enabled commissioners to speak more freely. Furthermore, the commissioners may have had more privacy when completing the survey versus the telephone interview. Ultimately, however, I feel that this strengthens the overall findings as it helped to compare and contrast findings, and where results from individual phases converged it increases the confidence in findings (204).

The production of four journal papers provided opportunity to further develop my academic writing, receive peer review and ultimately enhance the impact of my study. The adoption of a multimethod approach, comprising a systematic review and three distinct and sequenced phases presents opportunity for further analysis of the collected data (see Future research).

7.3.2. Limitations

The non-experimental observational design of this study limits the causal inferences that can be made about the impact of disinvestment from alcohol and drug treatment services. The first (and correlational phase) was able to conclude *associated* effects of disinvestment but not that disinvestment *caused* reductions in treatment engagement and successful completions. The six-year period of the study and the choice to only include three health variables (within Phase One) arguably limited the opportunity to measure the relationship between disinvestment, broader harm, or differences between groups. For reasons relating to data availability, time and population-level data (discussed within the Phase One paper), the design was unlikely to confirm such associations. It could have been possible to have included additional health and social data, such as drug-related crime to examine the impact of disinvestment. Such effects may be expected to be observed within a shorter period of reduced treatment availability or quality, but individual data would still not have been available. Furthermore, whilst *successful completions and not returning within six months* was used as the proxy indicator for recovery, it is not necessarily a true indication of sustained positive outcomes for people who have exited treatment. Whilst this was the only measure used nationally, people who have not returned to treatment within a period of time may have relapsed but chosen not, or been unable, to re-

engage with treatment. The development of a more reliable measure(s) of recovery would enhance the specificity of studies measuring long term impact of treatment.

A moderate response rate of 55% of local authorities was achieved in the survey, comparing unfavorably to a similar study reviewed in the systematic review (76%-85% of local authorities) (269). However, there is limited detail in the paper regarding the survey length, making comparisons difficult. Also, my survey coincided with the start of the Covid-19 pandemic and commissioners responded to the invitation to advise they would be unable to participate due to resulting changes to job roles.

Given the described significant reduction in commissioning teams (and loss of specialism) there is a risk that research participants were not always able to present accurate information. Furthermore, the political context of substance use commissioning can be unstable (234), and local changes in administration during the study period might have further influenced their views. However, the sequencing and sampling of phases two and three provided more opportunity to explore in more detail any dissonance in the results.

The combination of methods helped identify limitations of the treatment variables used in Phase One. Commissioners shared examples of changes to the way in which progress towards recovery is locally measured (some of which is currently not captured by NDTMS). Therefore, due to limitations in data availability my study was unable to quantitatively examine all proxy measures of treatment effectiveness.

A potential limitation during Phases Two and Three was the lack of questioning around non-commissioned support that might have changed during studied period. For example, in recent years, PHE has increased its focus on the role of mutual aid in supporting people with substance use disorders (282). Whilst there would have been opportunity for commissioners to share insights into mutual aid support in their area, a specific question may have identified evidence of a move to seek non-treatment-based support. However, given the identified changes in estimated prevalence and the increases in associated harm, it seems unlikely that any change in help-seeking behaviour has reduced need.

7.4. Implications and future directions

7.4.1. Future research

7.4.1.1. Building upon this study

Understanding the impact of future changes in funding on the uptake and outcomes of treatment will be important. To aid this, the database compiled to complete Phase One provides an ideal baseline upon which annual data could be incorporated as it is published.

This would enable the inclusion of additional treatment outputs and outcomes, examination of trends over a longer period, strengthen the analysis of relationships and allow differences between groups to be observed. This could identify trends within and across quintiles of deprivation – helping to understand any potential contribution(s) to widening health inequalities – and identify local authorities that appear to be making improvements to help learning in other areas. Similarly, repeating the survey on an annual basis, and attempts to increase the response rate, might increase the power of analysis of confounding effects, to better understand the effects of different factors in a complex and ever-changing environment.

To help further advance the literature the new quantitative data generated from the survey could be merged with routine data to examine the strength of effects identified by commissioners as contributing to, or moderating, the impact of disinvestment. For example, studying the effects of a tendering exercise on treatment engagement and successful completions for the year before, and year following, the start of a new contract.

7.4.1.2. The local authority context and leadership

If commissioning responsibilities are set to remain within the local authority environment, it would seem there are some key areas of research which may help to produce evidence to support local decision making. First, further exploration of the perceived influence of leadership and political support in the local authority environment may help to identify additional evidence of drivers of disinvestment but also find opportunities to gain support for the substance use agenda. This could be a quantitative study, similar to the one undertaken by Anderson et al. (269) or qualitative research to explore attitudes, particularly as commissioner described ongoing general stigmatized views of people with substance use disorders. Second, given the described difficulties of competing pressures, research to examine the impact of treatment for substance use disorders on other local authority business areas is needed to gain support for investment in alcohol and drug treatment services. For example, there are widespread reports of increasing demand on social care and evidence that effective treatment for substance use disorders can reduce such pressures. The production of local evidence of how engagement in treatment improves family functioning may encourage an invest-to-save mindset.

7.4.1.3. The effects of treatment changes

To help better understand the impact of changes to treatment, cohort studies could track the longer-term impact of fewer people engaging in treatment or how changes to service provision might contribute to demand on other services. Similarly, incorporating relevant broader perspectives may provide additional and perhaps different experiences of disinvestment. For example, primary research with frontline treatment workers or people who have accessed

services may help to better understand the changes in treatment provision, particularly in terms of any changes in the quality of service provision.

Commissioner-identified examples of good practice may provide useful focus of further observational research to understand the return on investment on new models of care for people with substance use disorders. This could aid the development of best practice guidance documents to support decision making in local authorities where commissioner and financial resources are limited.

7.4.2. Treatment policy

My study has demonstrated that sustained disinvestment from treatment services for substance use disorders was related to fewer people engaging in support, fewer people successfully completing treatment and a perceived reduction in quality. As a priority, the re-introduction of some kind of protection against budgets allocated to alcohol and drug treatment would be beneficial. The described knock-on effect of overall cuts on alcohol treatment provides evidence that some form of budget protection to investment in alcohol treatment within an integrated service may help to improve support for alcohol use disorders. Given the announcement of an £80 million increase in drug treatment funding for 2020/2021, the results provide a clear baseline against which progress can be measured. The seemingly hidden disinvestment from alcohol treatment needs consideration and clarity about budget spend is required. Additional drug treatment funding would need to help to improve the accessibility and quality of alcohol treatment if policy makers wish to increase the proportion of people with alcohol use disorders engaging in treatment. An increase in drug-related crime forms part of the rationale for increased funding however there has been no announcement of increased funding for alcohol treatment despite a significant rise in alcohol related offending, including serious violence (283). The perceived destabilising effect of re-tendering needs consideration which may require identifying ways to build on existing provision without completing large and timely procurement exercises. Without any understanding of the longevity of this increased funding, policy makers may wish to seek options which are more resilient to future budget cuts.

As part of contract monitoring, commissioners could build in measures to track changes in demand on other local authority business areas, such as children's social care. This could identify areas for improvement in service provision and help to support decision making in an environment of competing pressures and depleting resources. My study found examples where local authorities have approved procurement exercises with longer contract terms. These examples could be used by other areas in seeking political support and limit the damage of regular re-tendering cycles. It may be worthwhile to review capacity within strategy and

commissioning teams; ensuring they have the skills, knowledge, and resource to lead commissioning and partnership approaches. Due to the identified substantial regional variation in funding and treatment, national commissioning guidance may help achieve equity. As commissioners regularly referenced the loss of specialism within commissioning teams and frontline treatment workers, national policy leads may wish to develop new guidance regarding professional standards.

The new ways that some local authorities are recording recovery could be worth of further exploration. During interviews, commissioners described measures not captured by NDTMS but that may help treatment providers, and people accessing support, monitor progress. Further to this, there are opportunities to share examples of the identified local good practice, at a national level, helping to inform commissioning decisions in local authorities.

In August 2020, the Government announced that the current lead for alcohol and drug treatment policy – Public Health England – would cease to exist (284). Further details were released announcing that it would be replaced by the National Institute for Health Protection (NIHP) (65). Whilst the move was driven primarily in response to the COVID-19 pandemic, its focus is on health protection. The strategic ownership of PHE's non-health protection functions, including alcohol and drug policy, are set to be part of a separate new Office for Health Improvement and Disparities, also under the Department of Health and Social Care (285). With the changes resulting from the Health and Social Care Act 2012, this presents further substantial change for the alcohol and drug treatment agenda in England.

7.5. Conclusion

This study employed a multimethod approach to advance the literature examining the impact of disinvestment from alcohol and drug treatment between 2013/14 and 2018/19. It is the first to quantify the relationship between (dis)investment, treatment access and successful completions and provides peer-reviewed research that explores the impact of disinvestment from adults' alcohol and drug treatment in England.

The £212.21 million disinvested from alcohol and drug treatment services between 2013/14 and 2018/19 was significantly related to fewer adults accessing and successfully completing treatment. The routine financial data do not reflect an apparent hidden disinvestment from alcohol treatment services in England. The large-scale integration of treatment services has resulted in a diversion of funding to support drug treatment services and a diluted the offer for the alcohol treatment population.

Concurrent to disinvestment, commissioners have changed commissioning practices in attempt to moderate some of the negative impact on service availability and quality and there

are examples of service improvements. However, re-tendering activity and broader policy changes have further compounded the negative impact of disinvestment by destabilising treatment provision and further impairing the opportunities for some of the most vulnerable groups.

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Appendices

Appendix One

Phase One: Data Management Plan

The impact of Public Health disinvestment on alcohol and drug treatment and recovery from alcohol and drug dependence in England.

Defining your data

- Where does your data come from?
- How often do you get new data?
- How much data do you generate?
- What format(s) are your data in?
- If pre-existing datasets are being used, where will these come from? How will they be used? Who owns them?

I will create a local authority-based dataset for all 152 local authorities in England. Person-level data will not be used. Potential data sources were identified via the literature review and searched for relevant information on England population data, Public Health financial investment, alcohol and drug treatment service data, hospital admissions, alcohol and drug-related deaths for each of 152 local authorities in England for each of the five financial years 2013/14 to 2017/18. The following relevant datasets (in an Excel format) were identified for the years 2013/14 and 2017/18:

1. Local authority revenue account budgets[1] – this contains this overall Public Health spend[2], and within this, the investment in alcohol and drug treatment services (independently and combined) (145)
2. On advice received from PHE, a Freedom of Information request was submitted to PHE to obtain the following aggregated data, for each of the 152 local authorities in England and separately for adult alcohol, adult opiate and non- opiate[3] (as recorded on NDTMS) between 2012/13 and 2016/17[4]:
 1. Number of adults in treatment
 2. Number and percentage of adults new to treatment in that year
 3. Total leaving treatment successfully (number and percentage)
 4. Total leaving treatment successfully and not returning in 6 months (number and percentage)
 5. Average days in treatment
- Directly standardised rates per 100,000 of alcohol-related hospital admissions (narrow [5]) obtained using NHS Digital – Hospital Episode Statistics from the Office for National Statistics – mid-year population (12)
 1. Deaths from alcohol-specific conditions, all ages, directly age-standardised rate per 100,000 population [6] (from the Office for National Statistics (ONS) Annual Death Extract Public Health Mortality File and ONS mid-year Population Estimates) (78)
 2. Deaths from drug misuse – Deaths where the underlying cause of death has been coded to one of the following categories and where a drug controlled under the Misuse of Drugs Act 1971 was mentioned on the death certificated! (12)
 3. From the ONS website:
 1. The number of estimated Opiate and Crack Users, non-opiate and alcohol dependent adults (193)
 2. Indices of multiple deprivation (IMD) (194)
 3. Rural/urban local authority classification (195).

These publicly available, aggregated data sources will be compiled in SPSS to enable secondary data analysis.

Where available, data will be included over a five-year period from financial year 2013/14 to 2017/1 [\[8\]](#) An ethics application was submitted to Sheffield University to complete secondary analysis and authorisation received.

Phase two will comprise audio-recorded telephone interviews with a sample of alcohol and drug treatment commissioners. It is anticipated that there will be no more than 20 interviews, each lasting less than one hour.

All interviews will be digitally recorded and then transcribed verbatim, anonymising all participants. Following transcription, the transcripts will be uploaded to NVivo, all transcripts coded and a thematic analysis will be completed, aligned with Braun and Clarke's steps. Node matrices may be utilised according to any sub-groups into which participants have been allocated. This will help to identify similarities and differences within and between these groups. The thematic analysis will involve several phases: familiarisation with the data (achieved via listening to the audio recordings and reading through the transcripts), coding, theme-generation, synthesis and write-up.

An ethics application will be completed prior to commencing Phase 2. All participants (professionals) will be anonymised via an adoption of unique reference numbers / names to maintain confidentiality. Prior to taking part in the interviews, potential participants will be provided with a "Participation Information" sheet, specifically developed in relation to this research. This will explain the basic aim(s) of the research, what will happen with the data (included how it will be stored, analysed and presented) and include details of persons to contact to raise any concerns / ask questions. Written consent will then be requested before proceeding with data collection. As per the Data Protection Act, the interviewees will be asked to provide consent before audio-recording the interviews and the sound files will not be labelled utilising any personal identifiable information. Transcripts will also be edited to replace personal information with pseudonyms. Audio files and transcripts will be stored in a restricted folder, separate to any other information relating to participant contact details. All personal information will be deleted permanently once the research is complete and PhD confirmed. In addition, invitations to participate in interviews will include options to participate away from a workplace venue.

Phase Three will comprise a survey across 152 Local Authority-based alcohol and drug treatment commissioners in England.

The results from the survey will be uploaded into IBM SPSS for analysis. Descriptive statistics will be generated to provide an overview of the participants and findings from the survey. The prevalence of key issues will be reported with 95% confidence intervals. Further thought will be given to this analysis during future supervisions and an analysis plan drawn up.

An ethics application will be completed prior to commencing Phase 3. All participants will be anonymised via an adoption of unique reference numbers / names to maintain confidentiality if required. Prior to taking part in the survey, the invitation to participate will include a "Participation Information" sheet, specifically developed in relation to this research. This will explain the basic aim(s) of the research, what will happen with the data (included how it will be stored, analysed and presented) and include details of persons to contact to raise any concerns / ask questions. To further protect anonymity of participants, the survey will be available online only, following a secure link managed solely by the lead researcher.

[m](#) Theses spreadsheet contain budget estimates of local authority revenue expenditure and financing for each financial year. [r 21](#) The reported financial expenditure of LAs of the Public Health Grant [□ 1](#)

Data for non-opiate will be requested within the amended ethics application

[r 41](#) 2017/18 data became available in September 2018 therefore an amended ethic application was submitted in November)

[T51](#) Admissions to hospital where the primary diagnosis is an alcohol-attributable or a secondary diagnosis is an alcohol- attributable external cause code. Indicator 10.03 was filtered for unintentional injuries conditions; 10.04 for the mental and behavioural disorders due to use of alcohol condition; and 10.05 for the intentional self-poisoning by and exposure to alcohol condition.

[r 61](#) Can include ICD-10 codes: F10 Mental and behavioural disorders due to use of alcohol G31.2 degeneration of nervous system due to alcohol G62.1 Alcoholic polyneuropathy I42.6 Alcoholic cardiomyopathy K29.2 Alcoholic gastritis K70 Alcoholic liver disease K73 Chronic hepatitis, not elsewhere classified K74 Fibrosis and cirrhosis of liver (Excluding K74.3 to K74.5 – Biliary cirrhosis) K86.0 Alcohol induced chronic pancreatitis X45 Accidental poisoning by and exposure to alcohol X65 Intentional self-poisoning by and exposure to alcohol Y15 Poisoning by and exposure to alcohol, undetermined intent

[T71](#) Accidental poisoning by drugs, medicaments and biological substances (X40-X44) Intentional self-poisoning by drugs, medicaments and biological substances (X60-X64) Poisoning by drugs, medicaments and biological substances, undetermined intent (Y10-Y14) Assault by drugs, medicaments and biological substances (X85) Mental and behaviour disorders due to drug use (excluding alcohol and tobacco) (F11-F16, F18-F19)

[T81](#) Originally five years of data was proposed from 2012/13 to 2016/17 but the changes to the financial reporting mean that 2012/13 data was reported differently. Data for 2017/18 will be integrated and incorporated into analysis when it becomes available.

Looking after your data

- What different versions of each data file do you create?
- What additional information is required to understand each data file?
- Where do you store your data?
- How do you structure and name your folders/files?
- How is your data backed up?
- How will you test whether you can restore from your backups?
- What safeguards will you put into practice?

All data will be saved on a university encrypted secure folder to which only I have access. The audio recordings will be saved in a separate folder to the anonymised transcripts. Anonymised data will be backed-up on an external hard drive which will be kept in a locked drawer at home. Back-ups will be made at the end of each working day and regularly tested to ensure full restoration is achieved.

In compliance with the Data Protection Act, the recordings of the interviews will not be labelled by participant name or initials and the transcriptions will be saved in a restricted folder. The researcher will be the custodian of the data generated by the research and the supervisor will have access, as required. Any names and contact details will be saved within a password protected folder. Any paper signed consent forms and will be scanned in and saved within a password protected folder; any paper copies containing personal information will subsequently be shredded and disposed of within confidential waste. The data analysis will be undertaken on the researcher's personal laptop (restricted to sole use). The work will be undertaken at home in a private office.

All participants' data will be anonymised, adopting unique reference identifiers to maintain confidentiality. A participant information sheet has been developed explaining how the data will be saved and presented will be provided and explained before written consent for participation in the interviews obtained. At the start of the survey, participants will be asked to tick boxes to provide consent before proceeding to answering the survey questions. Personal information obtained will be stored in a password protected folder on the researcher's drive. Audio recordings will not be labelled by initial or name. The recordings will be saved in a separate password protected folder until the interviews have all been transcribed; once complete the recordings will be deleted permanently.

Archiving your data

- What should be archived beyond the end of the project?
- For how long should it be stored?
- When will files be moved into the archive?
- Where will the archive be stored?
- Who is responsible for moving data to the archive and maintaining it?
- Who should have access and under what conditions?

All data gathered during this research (via primary data collection methods) will be permanently deleted following the completion of the research and notification of this will be given to participants within the participant information sheets.

Sharing your data

- Could any of your data be considered sensitive personal data under the GDPR?
- Does permission need to be obtained for future re-use and sharing?
- Have participants transferred copyright (if necessary)?
- Who else has a right to see or use this data?
- Who else should reasonably have access?
- What should/shouldn't be shared and why?

None of the data gathered in Phase One is classed as sensitive personal data and the information is publicly available. Copyright is not required.

Implementing your plan

- Who is responsible for making sure this plan is followed?
- How often will this plan be reviewed and updated?
- What actions have you identified from the rest of this plan?
- What further information do you need to carry out these actions?

I am fully responsible for ensuring this plan is followed and in line within necessary legislation. It will be updated prior to each ethics application and/or when any adjustments to data management are made.

Appendix Two

Phase Two: Participant information sheet



Participant Information Sheet

Research project title:

The impact of changes in public health investment on alcohol and drug treatment services in England.

Introduction

Thank you for taking the time to read this information sheet. Before you decide if you would like to take part in this research project I would like to explain to you why the research is being carried out. Please read the following information and feel free to ask me if there's anything you are unsure of or are concerned about. Please take all the time you need to decide if you wish to continue and do not feel obliged to take part. You are free to withdraw from the research without explanation at any time should you wish.

What is the project's purpose?

The aim is to explore the perceived impact that local investment or disinvestment has had on the commissioning and provision of alcohol and drug treatment services in your area. This may include any changes to the way in which services are commissioned or the impact on people accessing services. I am completing this research as part of a PhD at the University of Sheffield.

I have already completed a first phase of the research which has analysed routine data to understand the impact of changes in investment in alcohol and drug treatment services. This includes the impact on treatment access, successful outcomes, alcohol-specific hospital admissions and alcohol and drug-related deaths. The questions I will ask within the interviews have been informed by the findings from this analysis.

Why have I been chosen?

As a lead commissioner for alcohol and drug treatment services in your area, you have been contacted to provide your professional view as part of Phase Two of this research. You, and people in similar roles, have been chosen to gather views on a diverse range of experiences.

Do I have to take part?

You do not have to take part in this study and you do not have to give a reason for not participating. If you choose to take part now, you can change your mind and withdraw from the study at any time without giving a reason. If you do take part you will be given a copy of this sheet for your information and asked to sign a consent form.

What will happen to me if I take part? What do I have to do?

You will be asked to participate in a telephone interview lasting about one hour. The interview will be audio recorded and will take place at a time to suit you. In the interview you

will be asked to respond to questions about your experiences as a commissioner of alcohol and drug treatment services. I am interested in your professional views, which will provide in-depth insight into recent changes in investment and changes to treatment provision.

What are the possible disadvantages and risks of taking part?

There are no risks or disadvantages foreseen for anyone taking part in this study.

What are the possible benefits of taking part?

The interviews will form part of a wider study providing evidence to demonstrate the impact of disinvestment on alcohol and drug treatment services in England. This study is intended to help inform alcohol and drug policy at a local and national level.

Will my taking part in this project be kept confidential?

All the information that I collect about you during the interviews will be kept strictly confidential and will only be accessible to members of the research team. You will not be able to be identified in any reports or publications unless you have given your explicit consent for this.

What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.

Will I be recorded, and how will the recorded media be used?

The audio recordings made during this research will be used only for analysis and for illustration in this project. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. All transcripts of the interviews, and any quotes used, will adopt pseudonymised names and services. The audio recordings will be deleted once they have been transcribed and upon confirmation of the PhD.

Who is organising and funding the research?

The research is part of a PhD as is being funded and supervised by the University of Sheffield.

Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

Who has ethically reviewed the research?

The research has been ethically approved via the University's School of Health and Related Research Ethics Committee. The University Ethics Committee oversees the SchARR Research Ethics Committee, monitoring the application and delivery of the University's Ethics Review Procedure across the University.

What will happen to the results of the research project?

The results of the research will be used in a PhD thesis. The findings from this research may also be incorporated into conference presentations or published journal articles. Should you wish to view a copy of any outputs please let me know via the contact details included below.

What if something goes wrong and I wish to complain about the research?

It is highly unlikely that anything will go wrong during this research. If you feel that you would like to make a complaint about any aspect of this study you may contact the study supervisor Professor Petra Meier at the University of Sheffield on 0114 222 0735 or p.meier@sheffield.ac.uk. Should you feel your complaint has not been handled satisfactorily after this you can contact the University's Registrar and Secretary at rsostaff@sheffield.ac.uk.

Contact for further information:

Should you require any further information, please contact:

Suzie Roscoe

Tel: 07967151698 or Email: smroscoe1@sheffield.ac.uk

Or

Professor Petra Meier

Professor of Public Health
School of Health and Related Research
University of Sheffield
Regent Court, 30 Regent Street
Sheffield, S1 4DA
Tel: 0114 222 5202 or Email: p.meier@sheffield.ac.uk

In advance of the interview, you will receive a summary of some data analysis. This will include analysis of publicly available information.

You can keep a copy of this information sheet and a copy of the consent form to keep for your own records.

Many thanks for reading this information and for taking part in the research.

Appendix Three

Phase Two: Consent form



Interview Consent Form

Research Project: The impact of changes in public health investment from alcohol and drug treatment services in England.

Name of Researcher: Suzie Roscoe

Participant Identification Number for this project:

Taking part in the project	
I confirm that I am responsible for the commissioning of alcohol and drug treatment services for an English Local Authority.	
I confirm that I have read and understood the participant information sheet explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree to take part in the project. I understand that taking part in the project will involve having a telephone interview which will be audio recorded for use of anonymised quotes. The audio recordings will be deleted once the PhD is confirmed.	
I understand that my participation is voluntary and that I am free to withdraw without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any question or questions, I am free to decline.	
How my information will be used during and after the project	
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the project.	
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.	
I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.	
So that the information you provide can be used legally by the researchers	
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	

At the start of the interview, you will be asked to confirm you have read the above statements and provide your oral consent to proceed with the research.

Appendix Four

Phase Two: Research Summary

Changes of investment in alcohol and drug treatment services, treatment access and successful outcomes between 2013/14 and 2017/18 in England.

This is a short summary of some analysis of routine data for 151 upper tier local authorities, comprising:

- Upper Tier Local Authority General Fund Revenue Account Final Outturn public health budget information (including investment in prevention from 2016/17, MHLG)
- Adult alcohol and drug treatment data (NDTMS)
- Alcohol-specific hospital admissions (PHE)
- Alcohol-specific mortality (PHE)
- Drug-related deaths (ONS)

Summary of the key changes between 2013/14 and 2017/18

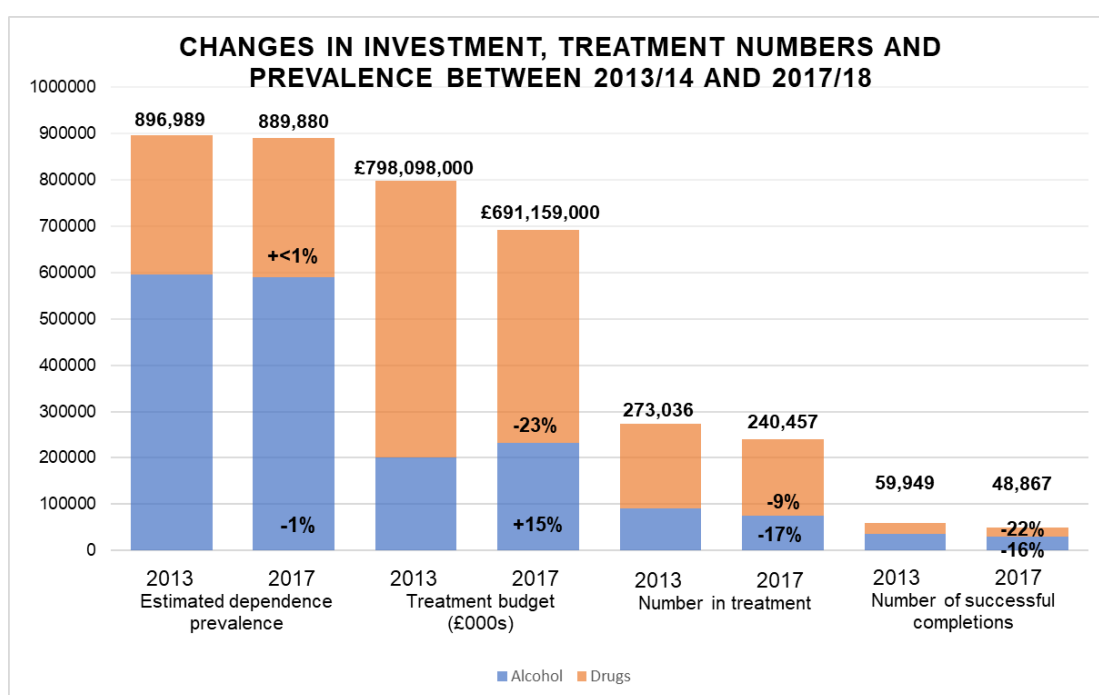


Figure 1: Overview of changes between 2013/14 and 2017/18

- In 2017/18, there was over £110 million less invested in alcohol and drug treatment compared to 2013/14
- 121 local authorities decreased investment during that time period and 30 increased investment
- The authorities that disinvested reduced spend on alcohol and drug treatment (combined) by £142 million (-21%); including a 23% reduction in drugs budget
- More than 32k fewer adults in treatment for alcohol or drug dependence across 151 local authorities

- More 11k fewer successful completions from treatment for adults with alcohol or drug dependence across 151 local authorities
- Access to treatment, and successful completions have declined more for alcohol treatment than drug treatment despite some increases in investment in alcohol treatment
- Whilst many local authorities increased their alcohol budget, only 13.51% (n.10) of these authorities had an overall increase in the amount invested in alcohol and drug treatment services between 2013/14 and 2017/18
- Increase in alcohol-specific hospital admissions (1%), alcohol-specific mortality (4.2%) and drug-related deaths (30.3%).

Statistical analysis results

Statistical analysis was completed to identify the relationship between investment in adult alcohol and drug treatment and treatment access, and outcomes. The model tested five years of data for 151 upper tier local authorities, and was adjusted to account for each year, each authority and population size. The results are summarised in table one, below.

This found that investment in alcohol and drug treatment between 2013/14 and 2017/18 was statistically significantly related to the number of adults:

- Accessing treatment (including those new to treatment), successful completions and successful completions and not return within six months for alcohol dependence
- New to treatment, successful completions and successful completions and not return within six months for drug dependence
- Accessing treatment, successful completions and successful completions and not return within six months for alcohol and drug dependence (combined).

Table 1: Summary of analysis of relationship between investment, treatment access and successful outcomes

Type of treatment	In treatment	Numbers of adults:		Successful completions (and not return within 6 months)
		New to treatment	Successful completions	
Alcohol	✓	✓	✓	✓
Drugs		✓	✓	✓
Alcohol and drugs combined	✓		✓	✓

This relationship was stronger within local authorities that had disinvested within this period for alcohol, drugs and alcohol and drugs (combined).

The relationship within the most deprived local authorities was the strongest, when compared to the least deprived local authorities. This means that smaller disinvestments were related to a bigger decline in treatment access and outcomes, in the most deprived areas, compared to the least deprived.

This information was produced and provided by Suzie Roscoe, University of Sheffield.
Please contact: smroscoe1@sheffield.ac.uk

Appendix Five

Phase Two: Interview topic guide

<p>1. Just before we begin, please could you confirm that you've had time to read the participant information sheet and that you provide your consent to proceed with this audio-recorded interview?</p>	
<p>2. Last week I shared with you some analyses I've completed based on routine data. What are your thoughts on the information?</p>	<ul style="list-style-type: none"> • Does this resonate with you? • Any surprises?
<p>3. Please could you tell me a bit about any procurement exercises you've completed between 2013 and 2017.</p>	<p>Were there any major changes in</p> <ul style="list-style-type: none"> • The service specifications in terms of changes to the services offered, number of access points, etc? If so, please can you describe this in a bit more detail • The opening or closure of any services? If so, please can you describe this in a bit more detail • The increase or reduction of any services? If so, please can you describe this in a bit more detail • Costs of procurement exercises (including unforeseen)? If so, please can you describe this in a bit more detail
<p>4. A) Could you please describe the overall changes in investment in alcohol and drug treatment services since 2013/14? B) Have there been any changes to service delivery resulting from your last procurement exercise?</p>	<p>For example:</p> <ul style="list-style-type: none"> • Increased or decreased investment • Requests to service providers to identify in-year savings • Brought forward a tendering exercise so that contract values can be adjusted • Redesign of a treatment system • Less tier four provision • Social prescribing • More or less prescribing • Less prevention • The introduction of, or end to, a payment schedule • Workforce changes • How would you say that it has impacted on support available?
<p>5. <i>(if not answered in previous questions)</i> Please could you describe how your alcohol and drug services are delivered locally? Are they separate or integrated services?</p>	<ul style="list-style-type: none"> • Integration or segregation of any services, if so, which? If integrated, have access points remained distinct or are they delivered via one hub? • Has this always been the case?

<p>6. What would you say have been the main drivers of these changes?</p>	<ul style="list-style-type: none"> • Finance – change in PH budget, use of PH budget to support wider services (i.e. widening portfolio) • Modernisation of service provision required • Too much waste in the system • Increased commitment • Local authority prioritisation • Changes in decision-making processes • Changes to partnership investment
<p>7. Are you aware of any changes, in recent years, to the number or socio-demographics of people benefitting from services?</p>	<ul style="list-style-type: none"> • Please describe the impact on delivery and take up of services • Any knowledge on any change in e.g. age, sex, ethnicity, levels of harm, co-existing mental health problems • What would you say are the main reasons for this?
<p>8. In what way is recovery, and other successes, measured locally?</p>	<ul style="list-style-type: none"> • Are these locally monitored or as part of the contract? are they audited? • Do you use NDTMS outputs, such as “successfully completed and not return to treatment within six months” as proxy measures? • If you don’t, are there any particular reasons?
<p>9. What do you feel have been the most positive developments in terms of the commissioning and provision of alcohol and drug treatment services over the last five years?</p>	<p>For example:</p> <ul style="list-style-type: none"> • Innovative services introduced • Improved return for investment • Improved outcomes despite disinvestment • Improved efficiencies in service delivery • Enabled “braver” decisions to be made • Development, or better use, of community assets • Improved local decision-making processes or political support.
<p>10. What do you feel are the broader policy and investment changes that are impacting on people affected by alcohol and drug dependence?</p>	<p>For example:</p> <ul style="list-style-type: none"> • Changes to criminal justice processes • Changes in costs of service provision, such as prescribing
<p>11. Is there anything else you would like to share about your local alcohol and drug service provision?</p>	<ul style="list-style-type: none"> • Changes to other pots / sources of funding • Focus on specific part of the system

Appendix Six

Phase Two: Data Management Plan:

The impact of Public Health disinvestment on alcohol and drug treatment and recovery from alcohol and drug dependence in England - Phase two

A Data Management Plan created using DMP online

Creator: Suzanne Roscoe

Affiliation: The University of Sheffield

Template: The University of Sheffield

Project abstract:

Despite growing drug and alcohol harm in England, including an increase in the number of adults dependent on alcohol and drugs, there has been national government disinvestment in alcohol and drug treatment services. This is against a backdrop of an increasing deficit of local authority income versus demand. The impact of this disinvestment has been met with concern by some charities, service providers and other professionals within this field. However, little research has been undertaken to examine the impact of disinvestment on the access to, and outcomes from, alcohol and drug treatment. This mixed methods study aims to assess the impact that Public Health disinvestment in substance misuse treatment services has had on access to treatment for, and recovery from, alcohol and drug dependence. Further, it aims to provide evidence of perceived good practice in mitigating budget cuts, or the impact of cuts. This is to aid future strategic and commissioning decision-making in the public sector, and to contribute to budget decision-making at a national level.

Last modified: 23-07-2019

Defining your data

- **Where does your data come from?**
- **How often do you get new data?**
- **How much data do you generate?**
- **What format(s) are your data in?**
- **If pre-existing datasets are being used, where will these come from? How will they be used? Who owns them?**

Phase two will comprise audio-recorded telephone interviews with and drug treatment commissioners. These professionals work within local authorities and their contact details are often readily available, often via local authority websites. It is anticipated that there will be approximately 20 interviews, each lasting about one hour.

The focus of the interviews is on work-related experiences, specific to the job role as a commissioner of alcohol and drug treatment services. This interview topic guide is not designed to gather personal information however, people may disclose personal information during the process. I therefore recognise the importance of a data management plan being in place and adhered to.

All interviews will be digitally recorded (using a University encrypted Dictaphone) and then transcribed verbatim, anonymising all participants. Following transcription, the transcripts will be uploaded to NVivo, all transcripts coded, and a thematic analysis will be completed, aligned with Braun and Clarke's steps. Node matrices may be utilised according to any sub-groups into which participants have been allocated. This will help to identify similarities and differences within and between these groups. The thematic analysis will involve several phases: familiarisation with the data (achieved via

listening to the audio recordings and reading through the transcripts), coding, theme-generation, synthesis, and write-up.

Prior to taking part in the interviews, potential participants will be provided with a "Participation Information" sheet, specifically developed in relation to this research. This will explain the basic aim(s) of the research, what will happen with the data (included how it will be stored, analysed and presented) and include details of persons to contact to raise any concerns / ask questions. Oral consent will then be requested at the start of each recorded interview, before proceeding with data collection.

Looking after your data

- **What different versions of each data file do you create?**
- **What additional information is required to understand each data file?**
- **Where do you store your data?**
- **How do you structure and name your folders/files?**
- **How is your data backed up?**
- **How will you test whether you can restore from your backups?**
- **What safeguards will you put into practice?**

All data saved in relation to this phase of the research will be saved within an access restricted folder on the University's Shared Network Filestore. This is automatically and regularly backed-up. This will be accessed via the VPN on an encrypted laptop (restricted for sole use). Members of the supervision team will be provided with access to subfolders of the main project file to be able to access anonymised transcripts and analysis.

All participants' data will be anonymised, adopting unique reference identifiers to maintain confidentiality. A participant information sheet has been developed explaining how the data will be saved and presented will be provided and explained before oral consent for participation at the start of each recorded interview. Any contact information for participants, sourced outside of what is available in the public domain, will be stored in an access restricted folder on the university's shared network filestore (accessed by the VPN).

The interviews will be digitally recorded using an encrypted device loaned from CiCS. The digital recordings will be securely deleted from the device as soon as they are uploaded into the access restricted folder. The recordings of the interviews will not be labelled by participant name or initials. I will transcribe all of the interviews individually and make no reference to specific individuals or places will be made. Pseudonyms will be provided, and a key developed for reference. The researcher will be the custodian of the data generated by the research and the supervisor will have access to specific folders to access anonymised transcripts and analysis, as required.

The data analysis will be undertaken on the researcher's laptop (restricted to sole use) which will be encrypted by the University. The work will be undertaken at home in a private office.

All data gathered during this phase of the research will be permanently destroyed following the completion of the research and confirmation of the PhD (estimated 31 March 2021). Notification of this will be given to participants within the participant information sheets.

I will advise participants to book a meeting room from which we can have the telephone interview, to help protect their confidentiality.

The University of Sheffield is the data controller.

Archiving your data

- **What should be archived beyond the end of the project?**
- **For how long should it be stored?**
- **When will files be moved into the archive?**
- **Where will the archive be stored?**
- **Who is responsible for moving data to the archive and maintaining it?**
- **Who should have access and under what conditions?**

The audio recordings on the encrypted digital Dictaphone (loaned via CiCS) will be securely deleted immediately after they are saved on to my University's access restricted folder on the Shared Network Filestore. All remaining data gathered during this research (via primary data collection methods) will be permanently destroyed following the completion of the research and confirmation of the PhD (estimated 31 March 2021). Notification of this will be given to participants within the participant information sheets.

Sharing your data

Could any of your data be considered sensitive personal data under the GDPR?

- **Does permission need to be obtained for future re-use and sharing?**
- **Have participants transferred copyright (if necessary)?**
- **Who else has a right to see or use this data?**
- **Who else should reasonably have access?**
- **What should/shouldn't be shared and why?**

The supervisor team will have access to specific folders to access anonymised transcripts and analysis, as required.

Implementing your plan

- **Who is responsible for making sure this plan is followed?**
- **How often will this plan be reviewed and updated?**
- **What actions have you identified from the rest of this plan?**
- **What further information do you need to carry out these actions?**

I am fully responsible for ensuring this plan is followed and in line within necessary legislation, under the supervision of my PhD supervisors. It will be updated when any adjustments to my research are made that might impact on a change in data gathered.

Appendix Seven

Phase Three: Participant Information Sheet



Participant Information Sheet

Research project title:

Recent changes in investment in, and the provision of, alcohol and drug treatment services.

Introduction

Thank you for taking the time to read this information sheet. Before you decide if you would like to take part in this research project I would like to explain to you why the research is being carried out. Please read the following information and feel free to get in touch with me if there is anything you are unsure of or are concerned about. Please take all the time you need to decide if you wish to continue and do not feel obliged to take part. You are free to withdraw from the research without explanation at any time should you wish.

What is the project's purpose?

The aim is to explore the perceived impact that local investment or disinvestment has had on the commissioning and provision of alcohol and drug treatment services in your area. This may include any changes to the way in which services are commissioned or the impact on people accessing services. I am completing this research as part of a PhD at the University of Sheffield.

I have already completed two phases of the research which involved analysis of routine data, and interviews with a sample of commissioners, to understand the impact of changes in investment in alcohol and drug treatment services. The questions in the survey have been informed by the findings from this analyses.

Why have I been chosen?

As a lead commissioner for alcohol and drug treatment services in your area, you have been contacted to provide your professional view as part of Phase Three of this research. You, and people in similar roles, have been chosen to gather views on a diverse range of experiences.

Do I have to take part?

You do not have to take part in this study and you do not have to give a reason for not participating. If you choose to take part now, you can change your mind and withdraw from the study at any time without giving a reason. If you do take part you asked to sign to provide your consent at the start of the survey, before the main questions begin.

What will happen to me if I take part? What do I have to do?

You will be asked to participate in an online survey that should take approximately 20 minutes to complete. The online survey uses the software Qualtrics, which is the University's approved and licensed system for secure collection of data. You can complete the survey at a time to suit you. In the survey you will be asked to respond to questions about your experiences as a commissioner of alcohol and drug treatment services. I am interested in your professional views, which will provide insight into recent changes in investment and changes to treatment provision.

What are the possible disadvantages and risks of taking part?

There are no risks or disadvantages foreseen for anyone taking part in this study.

What are the possible benefits of taking part?

The survey will form part of a wider study providing evidence on the impact of changes in investment in alcohol and drug treatment services in England. This study is intended to help inform alcohol and drug policy at a local and national level. Should you opt to participate, you will receive a summary of the findings prior to the publication of the research as soon as they are available.

Will my taking part in this project be kept confidential?

All the information that I collect about you personally during the survey will be kept strictly confidential and will only be accessible to members of the research team. You, or your local authority, will not be able to be identified in any reports or publications unless you have given your explicit consent for this. You will be given the option to provide specific examples on an anonymised basis or linked to your local authority. The data collected during this study may also be useful to similar research beyond this immediate project. We ask for your consent to share anonymised data with other verified researchers under the same conditions of maintaining strict confidentiality. All data will be destroyed within ten years of data collection (by 28 February 2030).

What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.

Who is organising and funding the research?

The research is part of a PhD funded and supervised by the University of Sheffield.

Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

Who has ethically reviewed the research?

The research has been ethically approved via the University's School of Health and Related Research Ethics Committee. The University Ethics Committee oversees the ScHARR Research Ethics Committee, monitoring the application and delivery of the University's Ethics Review Procedure across the University.

What will happen to the results of the research project?

The results of the research will be used in a PhD thesis. The findings from this research may also be incorporated into conference presentations or published journal articles. Should you wish to view a copy of any outputs please let me know via the contact details included below.

What if something goes wrong and I wish to complain about the research?

It is highly unlikely that anything will go wrong during this research. If you feel that you would like to make a complaint about any aspect of this study you may contact the study supervisor Professor Petra Meier at the University of Sheffield on 0114 222 0735 or p.meier@sheffield.ac.uk. Should you feel your complaint has not been handled satisfactorily after this you can contact the University's Registrar and Secretary at rsostaff@sheffield.ac.uk.

Contact for further information:

Should you require any further information, please contact:

Suzie Roscoe Email: smroscoe1@sheffield.ac.uk

Or

Professor Petra Meier

Professor of Public Health, School of Health and Related Research, University of Sheffield,

Regent Court, 30 Regent Street, Sheffield, S1 4DA, Tel: 0114 222 5202 or Email:

p.meier@sheffield.ac.uk

Appendix Eight

Phase Three: Consent Form



Online Survey Consent Form

Research Project: Recent changes in investment in, and the provision of, alcohol and drug treatment services

Name of Researcher: Suzie Roscoe

By taking part in the project	
I confirm that I am responsible for the commissioning of alcohol and drug treatment services for an English Local Authority.	
I confirm that I have read and understood the participant information sheet explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree to take part in the project. I understand that taking part in the project will involve completing an online questionnaire.	
I understand that my participation is voluntary and that I am free to withdraw without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any question, I am free to leave it blank.	
How my information will be used during and after the project	
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that the research team will ensure I cannot be identified based on my answers (for example, by including quotes that provide information that might identify my place of work) unless I provide specific consent.	
I understand my email address will not be revealed to people outside the project.	
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.	
I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs only if they agree to preserve the confidentiality of the information as requested in this form.	

At the start of the online survey, the above statements will be listed, and you will be asked to provide your written consent by ticking each one. Only once this is provided will you be asked to proceed with questionnaire completion.

Appendix Nine

Phase Three: Survey Planning Table

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
IV. Explore, by surveying a large sample of commissioner, the generalisability of findings with regards to the impact of changes in investment in adult alcohol and drug treatment services in England, activity perceived as mitigating the negative impact of disinvestment and examples of good practice.	9. What are the alcohol and drug treatment commissioners' experiences of (dis)investment in services locally since 2013/14?	How do commissioners describe changes in, and drivers of, investment in alcohol and drug services since 2013/14?	Q1-6	Basic table showing percentages responding as invested, disinvested, and stayed the same. Description of changes in investment in different modalities (mean %), top drivers of changes, and the changes in funding streams that have had the biggest impact on overall budget. Possibly explore differences across deprivation quintiles E.g. is it the most deprived that have experienced more due to reductions other funding streams or reporting competing pressures? How do these things link? Are there differences in percentage changes according to main drivers? Opportunity for something like Chi square analysis to cross tab e.g. leadership support and disinvestment levels	1	How best describes the overall change in investment in adult alcohol and drug treatment services in your area since 2013/14?	Increased, decreased, stayed the same	Nominal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
	10. What are the alcohol and drug treatment commissioners' experiences of changes in the commissioning and provision of services since 2013/14?	What procurement activity has taken place since 2013/14? What were the drivers of any changes? What do commissioners describe as the most positive and challenging aspects? How have the size of commissioning and strategy teams changed since 2013/14?	Q7-15	Describe which services have been re-rendered and the main reasons for service changes within a table. How many areas integrated service provision? Outline the topmost positive and challenging aspects of commissioning. Identify trends for crosstabs. T-test on change in commissioning team size	2	What would you say were the main reasons for the increase in investment?	Likert scale against six options: i) gained additional funding streams ii) need to expand service provision iii) increased prioritisation iv) increased demand for treatment v) increased costs in service delivery vi) other	Ordinal
		How many areas provide integrated services? And of those that have the integrated, has that changed since 2013/14? What do commissioners describe as the most positive and challenging aspects of service provision? How is success measured?	Q16-25	Describe the proportions of areas who've changed to integrated alcohol and drugs, then integrated children and adults. Outline the topmost positive developments and biggest challenges in terms of service provision. Outline how the majority measure success and any novel ways via content analysis of free text responses.	3	What would you say were the main reasons for the decrease in investment?	Likert scale against 9 options: i) Reduction in line the public health grant reduction ii) Loss of funding stream(s) iii) Competing pressures within the local authority iv) Reduced demand for treatment v) De-prioritisation of agenda vi) Lack of leadership support for agenda vii) Lack of engaged from elected members viii) Savings were realised without effecting service delivery ix) Other (please specify)	Ordinal
	11. What do alcohol and drug treatment commissioners perceive as the main drivers of (dis)investment and service	Covered in first two above			4	What would you say were the main reasons the investment was maintained?	Likert scale against 5 options: i) Leadership support ii) Elected member support iii) Local authority strategy iv) Partnership support v) Other (please specify)	Ordinal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
	provision since 2013/14?							
	12. What other aspects do alcohol and drug treatment commissioners perceive as having influenced treatment access and successful completions since 2013/14?	What, and how have, other developments affected treatment access and outcomes for people affected by alcohol and drug dependence?	Q26	Describe the main developments identified as impacting on people accessing and successfully completing services? (Enablers and disablers)	5	By approximately what percentage has investment in each of the following services changed since 2013/14?	Sliding % scale against following modalities: Community alcohol service, Community drug service, Inpatient detoxification service, Residential rehabilitation, Community recovery service Alcohol liaison team, Other (please specify)	Interval
		How do commissioners explain the disproportionate decline in alcohol treatment numbers nationally?	Q27-28	Thematic/content analysis of responses to question; following on from this formulate any further questions to ask of survey data. E.g. there may be a combination of things that respondents feel have contributed that could then be tested against the survey data	6	Most local authorities began receiving a Public Health grant on 1 April 2013. Since then, please can you describe any changes to other funding streams ? How would you say this impacted on the overall budget?	Select: Lost/gained/maintained; AND decreased it/mitigated it/helped to maintain it/increased it/made no difference against each of the following: i) PHE capital funding ii) Home Office funding iii) Police and crime commissioner iv) Clinical commissioning group v) Other local authority funding v) Other (please specify)	Nominal
	<i>Note: mitigators [objective IV] will be identified via quantitative analysis triangulating phase 3 and phase 1 data.</i>				7	Have you completed any procurement exercises for adult alcohol and drug treatment services in your area since 2013/14?	Yes or No	Dichotomous
	<i>N.B. First phase will be familiarising myself with the data to identify any additional lines of enquiry</i>				8	For which services have you tendered?	Select and insert date for: i) Community alcohol service ii) Community drug service iii) Inpatient detoxification service iv) Residential rehabilitation v) Early intervention service vi) Community recovery service vii) Hospital alcohol liaison	Interval

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
							team viii) Other (please specify)	
					9	What would you say were the main drivers for those procurement activities?	Multiple choice of i) to reform service provision ii) to integrate services iii) to reduce the number of contracts iv) to realise budget savings v) to change the payment schedule vi) legal requirement to procure vii) other against each modality: Community alcohol service Community drug service Inpatient detoxification service Residential rehabilitation service Early intervention service Community recovery service Other service (please specify)	Nominal
					10	As you selected "other reason" for the main drivers of procurement, please give reason(s).	Free text	Free text
					11	What do you feel have been the most positive developments locally in terms of commissioning of alcohol and drug treatment services in your area since 2013/14?	Likert scale against each of the following: i) Reduced number of contracts to manage ii) Transfer of some contracts to community service provider to manage iii) Improved contract monitoring iv) Extended the length of contracts v) Improved relationships with provider(s) vi) Improved leadership (in-house) support vii) Improved prioritisation of alcohol and drug agenda viii) Maintained prioritisation of alcohol and drug agenda ix) Improved understanding of local need x) Other (please specify)	Ordinal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
					12	You now have an opportunity, should you wish, to provide a brief example of a change in commissioning practice that you feel has been particularly positive .	Free text	Free text
					13	If you have given an example, please advise if you would be happy for it to be shared as a brief case study	Yes, and LA identified; Yes, but LA not identified; No, but happy for it to be used in analysis	Nominal
					14	What do you feel have been the biggest challenges locally in terms of the commissioning of alcohol and drug treatment services since 2013/14?	Likert scale against each of the following: i) Protecting funding from cuts ii) Securing support to advertise sufficiently long-term contracts iii) Reduced competition in the provider market iv) Insufficient staff resource to manage strategy and commissioning v) Understanding of need vi) Increased prescribing costs vii) Increased dispensing costs viii) Measuring the impact and success of treatment ix) Lack of leadership support x) Lack of national support and guidance xi) Other (please specify)	Ordinal
					14	You now have an opportunity, should you wish, to provide a brief example of a change in commissioning practice that you feel has been	Free text	Free text

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
						particularly challenging.		
					15	If you have given an example, please advise if you would be happy for it to be shared as a brief case study	Yes, and LA identified; Yes, but LA not identified; No, but happy for it to be used in analysis	Nominal
					16	Are your community adult alcohol and drug treatment services integrated? <i>(This means that services are part of the same contract and delivered by the same staff in the same buildings)</i>	Yes, and they have been since before 2013/14; Yes, but they have changed to integrated since 2013/14; No, and they never have been; No, but they have been previously	Nominal
					17	Are your community adult alcohol and drug treatment services integrated with community children's alcohol and drug treatment services? <i>(This means that services are part of the same contract)</i>	Yes, and they have been since before 2013/14; Yes, but they have changed to integrated since 2013/14; No, and they never have been; No, but they have been previously	Nominal
					18	What do you feel have been the most positive developments in terms of the provision of alcohol and drug treatment services locally since 2013/14?	Likert scale against the following: i) Improved geographical coverage ii) Increased community provision via other services iii) Services easier to navigate iv) Integration of alcohol and drug treatment services v) Improved use or availability of community detoxification vi) Improved support for people in recovery vii) Improved partnership working viii)	Ordinal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
							Improved quality of treatment ix) Change in service provider x) Improved links with the NHS xi) Improved focus on early intervention xii) Improved promotion of services xiii) Reduced caseloads xiv) Increase in group work xv) Services more attractive to people affected by alcohol dependence xvi) Services more attractive to people affected by drug dependence xvii) Improved support for people with complex needs xviii) Increased diversity in sociodemographics or people accessing treatment xix) Other (please specify)	
					19	You now have an opportunity, should you wish, to provide a brief example of a change in service provision that you feel has been particularly positive .	Free text	Free text
					20	If you have given an example, please advise if you would be happy for it to be shared as a brief case study	Yes, and LA identified; Yes, but LA not identified; No, but happy for it to be used in analysis	Nominal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
					21	What do you feel have been the biggest challenges in terms of the provision of alcohol and drug treatment services locally since 2013/14?	Likert scale against each of the following: i) Integration of alcohol and drug treatment ii) Reduced geographical coverage iii) Reduced 1:1 time with treatment population iv) Increased caseloads v) Reduced focus on early intervention vi) Alcohol and drug service workforce turnover vii) Ageing treatment population viii) Increase in complex physical health needs of treatment population ix) People not engaging in treatment early enough x) Change in drug use xi) Reduced diversity in sociodemographics of people accessing support xii) Reduced referrals into treatment from agencies xiii) Services not attractive to alcohol treatment population xiv) Services not attractive to drug treatment population xv) Weakened partnership working xvi) Weakened links with NHS xvii) Other (please specify)	Ordinal
					22	You now have an opportunity, should you wish, to provide a brief example of a change in service provision that you feel has been particularly challenging .	Free text	Free text
					23	If you have provided an example, please advise if you would be happy for it to be	Yes, and LA identified; Yes, but LA not identified; No, but happy for it to be used in analysis	Nominal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
						shared as a brief case study		
					24	How do you measure the positive impact of alcohol and drug treatment services?	Multiple choice: NDTMS outcome measures; case studies; recovery readiness; reduced impact on children's social care; reduced impact on adult's social care; reduced attendances or lengths of stay at hospital; other (please specify)	Nominal
					25	How, if at all, do you feel the following areas have impacted on people affected by alcohol and drug dependence since 2013/14?	Choice of: made it easier to engage; made it easier to complete; not impacted; made it more difficult to engage; made it more difficult to successfully complete against each of the following: i) The welfare reform ii) Changes to social housing iii) Changes to mental health services iv) Changes to primary care practice v) Changes to the criminal justice system vi) Changes to education, employment and training opportunities vii) Alcohol industry viii) Change in drug use ix) Changes to local authority strategy x) Stigma of alcohol dependence xii) Stigma of drug dependence xiii) Other (please specify)	Nominal
					26	You now have an opportunity, should you wish, to provide a brief example of a change outside of the commissioning	Free text	Free text

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
						practice or service provision of alcohol and drug treatment , that you feel is particularly relevant to the alcohol and drug treatment population. Please describe the change and its impact.		
					27	If you have given an example, please advise if you would be happy for it to be shared as a brief case study	Yes, and LA identified; Yes, but LA not identified; No, but happy for it to be used in analysis	Nominal
					28	Over recent years there has only been a small amount disinvested from alcohol treatment but there has been a significant a decline in the number of people accessing, and successfully completing, treatment nationally. Please provide any thoughts you have as to why this might be the case?	Free text	Free text
					29	If you have provided a response to the above question, please advise if you would be happy for this example to be shared as a brief case study	Yes, and LA identified; Yes, but LA not identified; No, but happy for it to be used in analysis	Nominal

Objective	Original Research questions	Questions guiding survey analysis	Which survey questions relate	Outputs	Survey question number	Survey questions	Response options	Type of data
					30	For which local authority do you work?	Free text	Discrete
					31	Please list any other local authorities for which the response you have provided in this survey represent	Free text	Discrete
					32	How many whole time equivalent (WTE) staff were involved in commissioning of, and strategy for, alcohol and drug treatment services in 2013/14 and in 2018/19?	Insert number against: 2013/14 and 2018/19	Interval

Appendix Ten

Phase one ethics application



Self-declaration

Application 018529

Section A: Applicant details

Date application started:

Mon 12 March 2018 at 18:00

First name:

Suzanne

Last name:

Roscoe

Email:

smroscoe1@sheffield.ac.uk

Programme name:

PhD

Module name:

PhD

Last updated:

16/05/2018

Department:

School of Health and Related Research

Applying as:

Postgraduate research

Research project title:

The impact of Public Health financial disinvestment on recovery from drug and alcohol dependence

Similar applications:

- not entered -

Section B: Basic information

Supervisor

Name	Email
Penelope Buykx	p.f.buykx@sheffield.ac.uk

Proposed project duration

Proposed start date:

Tue 15 May 2018

Proposed end date:

Tue 14 May 2019

Section C: Summary of research

1. Aims & Objectives

This application is to support secondary data analysis to incorporate within my PhD confirmation review report (and final thesis) and to refine the focus of my PhD research aims and objectives.

The aim of the analysis is to:

- i) Identify the annual level of financial investment in adult drug and alcohol treatment services in England as a whole, and each of its 152 Local Authorities (LA), between 2012/13 and 2016/17
- ii) Identify the prevalence estimated of adults with opiate dependence and alcohol dependence in England, and each of its 152 Local Authorities (LA), between 2012/13 and 2016/17
- iii) Identify the drug and alcohol treatment outcomes for adults accessing treatment (either opiate or alcohol) for opiate or alcohol dependence in England, and each of 152 LAs in England, between 2012/13 and 2016/17, including the:
 - a. Number of adults, and percentage of all adults in treatment (as a proportion of all in treatment for alcohol dependence) who are new to alcohol treatment in each year
 - b. Number of adults, and percentage of all adults in treatment (as a proportion of all in treatment for opiate dependence) who are new to opiate treatment in each year
 - c. Total recorded as leaving alcohol treatment successfully (number and percentage of alcohol treatment population)
 - d. Total recorded as leaving opiate treatment successfully (number and percentage of opiate treatment population)
 - e. Total leaving alcohol and opiate treatment successfully and not returning in 6 months (number and percentage)
 - f. Average number of days in treatment for all those who have completed alcohol treatment successfully
 - g. Average number of days in treatment for all those who have completed opiate treatment successfully.
- iv) Identify the level number of drug-related deaths, alcohol-specific mortality, and alcohol-related hospital admissions in England, and each of 152 LAs in England, between 2012/13 and 2016/17
- v) Explore the relationships between financial investment in substance misuse services and:
 - a. drug and alcohol treatment participation and outcomes by LA, and nationally;
 - b. drug and alcohol-related harm, including alcohol-related hospital admissions, alcohol related/specific mortality and drug related deaths;
 - c. drug and alcohol related harm and levels of deprivation.

Overall, I am looking to investigate whether the national disinvestment (1,2) is associated with:

1. The numbers (and proportion) of adults accessing treatment for opiate dependence or for alcohol dependence
2. The average number of weeks adults have engaged in treatment for opiate dependence, or for alcohol dependence, before successfully completing treatment (i.e. alcohol / opiate free)
3. The numbers (and proportion) of adults successfully completing treatment for opiate dependence, or alcohol dependence, after accessing treatment
4. The numbers (and proportion) of adults successfully completing treatment for opiate dependence, or alcohol dependence, after accessing treatment and not returning within six months
5. Alcohol related hospital admissions (narrow)
6. Alcohol-specific mortality i.e. when the cause of death is recorded as wholly attributable to alcohol
7. Drug related deaths

The results will help to inform the aims, objectives, and sampling within the next stage of my PhD.

References:

1. Advisory Council on the Misuse of Drugs (ACMD). Commissioning impact on drug treatment [Internet]. 2017 [cited 2018 Apr 26]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/642811/Final_Commissioning_report_5.15_6th_Sept.pdf

2. DrugScope. State of the Sector 2014-15 -Summary Report [Internet]. 2015 [cited 2018 Mar 5]. Available from: <http://www.drugwise.org.uk/wp-content/uploads/sossummary2015.pdf>

2. Methodology

Publicly available, aggregated data sources will be searched, compiled from various sources and secondary data analysis completed.

The following data sources will be utilised:

- i) "Local authority revenue expenditure and financing England budget individual local authority data" - from this overall public health spend, and within this, the investment in drug and alcohol services can be obtained (<https://www.gov.uk/government/collections/local-authority-revenue-expenditure-and-financing>)
- ii) On advice received from PHE, I will submit a Freedom of Information request to PHE to obtain the following aggregated data for the years 2012/13 - 2016/17, for each of the 152 LAs in England and separately for adult alcohol and adult opiate:
 - a. Number of adults in treatment (as recorded on National Drug Treatment Monitoring System (NDTMS))
 - b. Number and % of adults new to treatment in that year (NDTMS)
 - c. Total leaving treatment successfully (number and percentage) (NDTMS)
 - d. Total leaving treatment successfully and not returning in 6 months (number and percentage) (NDTMS)
 - e. Average days in treatment (NDTMS)
- iii) Directly standardised rates per 100,000 of alcohol-related hospital admissions (narrow (obtained using NHS Digital - Hospital Episode Statistics (HEDS) for Office for National Statistics - mid-year population)
- iv) Deaths from alcohol-specific conditions, all ages, directly age-standardised rate per 100,000 population (Risk Factors Intelligence (RFI) team from the Office for National Statistics (ONS) Annual Death Extract Public Health Mortality File and ONS mid-year Population Estimates)
- v) Deaths from drug misuse - Deaths where the underlying cause of death has been coded to one of the following categories and where a drug controlled under the Misuse of Drugs Act 1971 was mentioned on the death certificate
- vi) From the Office for National Statistics website for 2012/13 - 2016/17:
 - a. The number of estimated Opiate and Crack Users and alcohol dependent adults (<https://www.gov.uk/government/collections/alcohol-and-drug-misuse-and-treatment-statistics#prevalence-data-and-analysis>)
 - b. Indices of multiple deprivation (IMD) (<https://www.gov.uk/government/collections/english-indices-of-deprivation>)

All the above data will be compiled and a worksheet (in Excel) created to have a line per 152 LA with a column for each of the relevant data from above sources.

Descriptive statistics will be generated to present information such as percentage of LA Public Health (PH) budget invested in adult substance misuse, adult alcohol treatment and adult opiate treatment; money invested in alcohol and drug treatment per head of the prevalent populations, utilising estimated prevalence.

LAs will be sorted by rank of most invested per head, to least for adult alcohol, adult opiate, and adult substance misuse (overall).

Findings will be presented across all LAs, and nationally, over the five-year period.

Statistical tests will be utilised, including logistic regression, to ascertain associations between financial investment and drug and alcohol treatment outcomes, and wider related harm.

Section F: Supporting documentation

Additional Documentation

Document 1053088 (Version 1)	All versions
Amendment 13th November 2018	
Document 1053531 (Version 1)	All versions
Amendment 23rd November 2018	

External Documentation

- not entered -

Section G: Declaration

Signed by: Suzie Kelly Date Mon 14 May 2018 at 14:50

Appendix Eleven

Phase One: Ethics approval letter



Downloaded: 18/06/2021

Approved: 16/05/2018

Suzanne Roscoe

Registration number: 170254106

School of Health and Related Research

Programme: PhD

Dear Suzanne

PROJECT TITLE: The impact of Public Health financial disinvestment on recovery from drug and alcohol dependence **APPLICATION:** Reference Number 018529

This letter confirms that you have signed a University Research Ethics Committee-approved self-declaration to confirm that your research will involve only existing research, clinical or other data that has been robustly anonymised. You have judged it to be unlikely that this project would cause offence to those who originally provided the data, should they become aware of it.

As such, on behalf of the University Research Ethics Committee, I can confirm that your project can go ahead on the basis of this self-declaration.

If during the course of the project you need to [deviate significantly from the above-approved documentation](#) please inform me since full ethical review may be required.

Yours sincerely

Charlotte Claxton

Departmental Ethics Administrator

Appendix Twelve

Phase One: Ethics amendments

(a) SchARR Research Ethics Committee

NOTICE OF AMENDMENT

For use in the case of all research where an amendment is made.

To be completed as a word document by the Chief Investigator in language comprehensible to a lay person and submitted to the Ethics Administrator.

Further guidance is available at <http://www.shef.ac.uk/scharr/research/ethicsgovernance>

Details of Chief Investigator:	Suzanne Roscoe
<i>Name:</i>	Suzanne Roscoe
<i>Type of ethics application: for example: PGR/PGT or Staff</i>	PGR
<i>Telephone:</i>	07967151698
<i>Email:</i>	Smkelly1@Sheffield.ac.uk

Full title of study:	The impact of public health financial disinvestment on recovery from drug and alcohol dependence
REC reference number (if known):	018529
Date study commenced:	15 May 2018
Amendment number and date (for office use):	

Type of amendment (indicate all that apply in bold)

(b) *Amendment to information previously given on the REC Application Form*

Yes *No*

If yes, please refer to relevant sections of the REC application in the “summary of changes” below.

(c) *Amendment to the protocol*

Yes **No**

If yes, please submit either the revised protocol with a new version number and date, highlighting changes in bold, or a document listing the changes and giving both the previous and revised text.

(c) *Amendment to the information sheet(s) and consent form(s) for participants, or to any other supporting documentation for the study*

Yes **No**

If yes, please submit all revised documents with new version numbers and dates, highlighting new text in bold.

Is this a modified version of an amendment previously notified to the REC?

Yes **No**

Summary of changes

Briefly summarise the main changes proposed in this amendment using language comprehensible to a lay person. Explain the purpose of the changes and their significance for the study.

If the amendment significantly alters the research design or methodology, or could otherwise affect the scientific value of the study, supporting scientific information should be given (or enclosed separately). Indicate whether or not additional scientific critique has been obtained

(d) The main change in this amendment is that I now wish to incorporate routine data for 2017/18 - which has since become available via Public Health England (PHE). This is to support Phase One of my PhD research.

(e) In addition, I wish to request the same treatment data from PHE for 2012/13 - 2017/18 for non-opiates, as per my previous application for opiates and alcohol.

(f) This data will be in the same format as data already held for years 2012/13 to 2016/17 and will be stored, analysed and reported as previously advised (ethics reference number: 018529).

(g)

Any other relevant information

Applicants may indicate any specific ethical issues relating to the amendment, on which the opinion of the REC is sought.

(h) Not applicable

List of enclosed documents		
Document	Version	Date

Declaration by Chief Investigator

• I confirm that the information in this form is accurate to the best of my knowledge and I take full responsibility for it.

Signature of Chief Investigator:

Print name: Suzanne Roscoe

Date of submission: 07.11.18

Declaration by the supervisor (if appropriate)

• I confirm the supervisors support for this amendment.

Print name: Dr Penny Buykx

Post: Senior Research Fellow

Date: 07.11.18

Declaration by the supervisor (if appropriate)		
• I confirm the supervisors support for this amendment.		
Print name:	Dr Penny Buykx.....	Peta Meier
Post:	Senior Research Fellow.....	Prof. Public Health
Date:	07.11.18.....	19/11/18

SCHARR Research Ethics Committee

NOTICE OF AMENDMENT

For use in the case of all research where an amendment is made.

To be completed as a word document by the Chief Investigator in language comprehensible to a lay person and submitted to the Ethics Administrator.

Further guidance is available at <http://www.shef.ac.uk/scharr/research/ethicsgovernance>

Details of Chief Investigator:	Suzanne Roscoe
Name:	Suzanne Roscoe
Type of ethics application: for example: PGR/PGT or Staff	PGR
Telephone:	07967151698
Email:	Smroscoe1@sheffield.ac.uk

Full title of study:	The impact of public health financial disinvestment from drug and alcohol dependence
REC reference number (if known):	018529
Date study commenced:	15.05.18
Amendment number and date (for office use):	

<p>Type of amendment (indicate all that apply in bold)</p> <p>(a) Amendment to information previously given on the REC Application Form</p> <p>Yes No</p> <p><i>If yes, please refer to relevant sections of the REC application in the "summary of changes" below.</i></p> <p>(b) Amendment to the protocol</p> <p>Yes No</p> <p><i>If yes, please submit <u>either</u> the revised protocol with a new version number and date, highlighting changes in bold, <u>or</u> a document listing the changes and giving both the previous and revised text.</i></p> <p>(c) Amendment to the information sheet(s) and consent form(s) for participants, or to any other supporting documentation for the study</p> <p>Yes No</p>

If yes, please submit all revised documents with new version numbers and dates, highlighting new text in bold.

Is this a modified version of an amendment previously notified to the REC?

Yes No

Summary of changes

Briefly summarise the main changes proposed in this amendment using language comprehensible to a lay person. Explain the purpose of the changes and their significance for the study.

If the amendment significantly alters the research design or methodology, or could otherwise affect the scientific value of the study, supporting scientific information should be given (or enclosed separately). Indicate whether or not additional scientific critique has been obtained.

The main amendment requested relates to incorporating routine data for 2018/19 that is now available via Public Health England and the Ministry of Housing and Local Government. This is to provide an additional year of data to incorporate in phase one analysis for my PhD.

This data will be in the same format as previously requested and it will be stored, analysed, and reported as previously advised.

Any other relevant information

Applicants may indicate any specific ethical issues relating to the amendment, on which the opinion of the REC is sought.

Not applicable

List of enclosed documents

Document	Version	Date

Declaration by Chief Investigator

I confirm that the information in this form is accurate to the best of my knowledge and I take full responsibility for it.

Signature of Chief Investigator: S Roscoe

Print name: Suzanne Roscoe

Date of submission: 20/11/19

Declaration by the supervisor (if appropriate)

I confirm the supervisors support for this amendment.

Print name: Petra Meier.....

Post: Prof Public Health.....

Date: 20/11/19.....

Appendix Thirteen

Phase Two: Ethics application



Application 030159

Section A: Applicant details

Date application started:

Sat 6 July 2019 at 11:18

First name:

Suzanne

Last name:

Roscoe

Email:

smroscoe1@sheffield.ac.uk

Programme name:

PhD

Module name:

Confirmation review Last updated:

25/07/2019

Department:

School of Health and Related Research

Applying as:

Postgraduate research

Research project title:

The impact of public health disinvestment on alcohol and drug treatment and recovery from alcohol and drug dependence in England - Phase Two.

Has your research project undergone academic review, in accordance with the appropriate process?

Yes

Similar applications:

- *not entered* -

Section B: Basic information

Supervisor

Name Email

Petra Meier p.meier@sheffield.ac.uk

Proposed project duration

Start date (of data collection):

Thu 1 August 2019

Anticipated end date (of project)

Wed 31 March 2021

not entered -

Project code

Project externally

funded?

not entered -

Suitability

Takes place outside UK?

No

Involves NHS?

No

Health and/or social care human-interventional study?

No

ESRC funded?

No

Likely to lead to publication in a peer-reviewed journal?

Yes

Led by another UK institution?

No

Involves human tissue?

No

Clinical trial or a medical device study?

No

Involves social care services provided by a local authority?

No

Involves adults who lack the capacity to consent?

No

Involves research on groups that are on the Home Office list of 'Proscribed terrorist groups or organisations? No

Indicators of risk

Involves potentially vulnerable participants? No

Involves potentially highly sensitive topics? No

Section C: Summary of research

1. Aims & Objectives Background to PhD research

Alcohol and drug treatment is effective in reducing health and social harms associated with dependence and provides a good return on investment (1-3). Since 2013, there has been a reduction in the overall amount invested in alcohol and drug treatment services (4-8) and those services which support recovery more broadly, including for example housing (9-11). Concurrently, the numbers accessing treatment, and the proportion of those successfully completing treatment, have declined (12). Alcohol-related hospital admissions (13), alcohol-related mortality (13) and drug-related deaths (14) have continued to rise, and the most disadvantaged experience worse alcohol-related health outcomes (15-18).

The limited existing research in this field provides clear evidence of recent disinvestment from alcohol and drug treatment services in England (4-6,19) and a concurrent decrease in the number of people accessing support for alcohol and drug dependence (4-7,20-22). This is despite an overall increase in the prevalence of adults dependent on alcohol and drugs (18). In 2017/18 of those who would benefit from specialist treatment, 82% of those dependent on alcohol were not accessing treatment nor 46% of those dependent on opiates (12).

There are recurrent themes within the literature about the impact of the disinvestment on commissioning processes, service delivery and service outcomes yet much is opinion-based with limited supporting evidence (23-26). This includes some disparity between the published local authority budget information (7,27), the perceived cuts to services

(according to stakeholders) and the disproportionate impact that overall cuts appear to be having on the alcohol treatment population (27). There are views that the integration of many alcohol and drug services may have drawn funding away from a proportionate offer for people affected by alcohol dependence. This includes a reduction of alcohol specialists within the workforce and merged facilities becoming less attractive to those for whom they are intended (27). As some of the literature suggests, some cuts appear disproportionate to need and therefore analysis to explore the differences in investment across England, and the relationship between deprivation, disinvestment, treatment outcomes and wider alcohol and drug harm is needed. This may be particularly relevant now given the impending change to Public Health budgetary arrangements as concerns have already been raised about potential widening of health inequalities (5,7).

The increasing number of publications relating to disinvestment from substance misuse treatment services over recent months suggests that there is real, and growing, concern among stakeholders (7,27). Qualitative research has identified perceived impacts of the changes experienced in treatment services yet to date there remains limited empirical measurement of the relationship between disinvestment and health and social outcomes.

The aim of this research (comprising three phases) is to generate evidence on the impact of public health disinvestment in alcohol and drug treatment services in England on treatment access and associated outcomes. The three main objectives are to:

1. Examine the changes in investment in alcohol and drug treatment services between 2013/14 and 2017/18 and the relationship between the scale of public health disinvestment and treatment access and outcomes (via analysis of routine data).
2. Develop an in-depth understanding of commissioners' perspectives of the impact of changes in investment in alcohol and drug treatment services, and its relationship to change in treatment outcomes (via semi-structured interviews). This will include an objective to identify examples of practice in mitigating the impact of cuts, including the introduction of new recovery outcomes.
3. Explore, by surveying a large sample of commissioners, their views on the impact of changes in investment in alcohol and drug treatment services within England.

Each of the above objectives will be met by a different phase of a three-phase mixed methods sequential study. Phase one is now complete (ethics application 018529) and this ethics application is to support Phase Two of my research (objective 2 above in bold).

The objectives of the interviews are to gain in-depth insight into the findings from Phase One and the literature review. The purpose of the interviews is to collect professional accounts of experiences of public health disinvestment from alcohol and drug treatment services, exploring attitudes and beliefs and gain rich and detailed information. The main objectives are to explore the views of commissioners of alcohol and drug treatment services about:

1. Trends over the past five years in investment, treatment access and successful outcomes
 2. Key drivers to changes in investment in services
 3. The impact of changes in investment, in particular disinvestment, on processes and delivery of services
 4. Ways in which cuts have been protected or mitigating, including highlighting examples of perceived good practice
2. Methodology

As this ethics application only relates to phase 2 of my research that is the methodology described here.

1. The proposed research involves in-depth semi-structured interviews with a sample of commissioners to explore perceptions of reasons for the observed trends and the impact of disinvestment. This will help to develop in-depth understanding of potential impact of disinvestment and inform the development of a questionnaire for use in Phase 3. Interviews will be conducted by telephone, will be guided by a topic guide (see below) and will last approximately one hour.

Topic guide to support semi-structured interviews

The findings from Phase One, in addition to the themes and sub-themes identified within the literature review, have informed the topic guide development to support the interviews. Open questions will be utilised to maximise opportunity for participants to share their views. Prior to the interviews, consenting participants will be sent an overview of the findings from Phase One to provide some empirical context to the interviews. In addition, the feedback from a sample of commissioners who received a presentation on my Phase One findings have supported topic guide development. The topic guide will be piloted to with one or two professionals to test its practicability in terms of acquiring suitable information and within about an hour (30). Interviews will be conducted by telephone to keep the time and cost required low (32). Telephone interviews sometimes yield brief interviews (43,44) but managers communicate by telephone for their work and this is unlikely to be a problem in my study.

The following provides an overview of the main questions within the topic guide (subject to any amendments post-pilot interviews). The final version will be authorised by my supervisor team. The focus of the interviews will be on participants' views on what has happened in the local authority in which they work:

1. Just before we begin, please could you confirm that you've had time to read the participant information sheet and that you provide your consent to proceed with this audio-recorded interview?
2. Last week I shared with you some analysis I've completed based on your local authority. What are your thoughts on the information?
3. Please could you tell me a bit about any procurement exercises you've completed between 2013 and 2017.
4. Please could you explain whether alcohol and drug services are delivered separately or as integrated services, locally?
5. In relation to the change in investment in alcohol and drug treatment services since 2013/14, how would you say this has impacted on service provision, if at all?
6. What would you say have been the main drivers of these changes?
7. What changes do you feel there have been in the last few years on the numbers or groups of people accessing services?
8. In what ways do you measure recovery locally?
9. What do you feel have been the most positive developments in terms of the commissioning and provision of alcohol and drug treatment services over the last five years?
10. You now have an opportunity to make any further or additional comments about the changes in investment over the last five years and how you feel it has impacted of alcohol and drug treatment services.
11. What do you feel are the broader policy and investment changes that are impacting on people affected my alcohol and drug dependence?

Phase two: data analysis

All interviews will be digitally recorded and then transcribed verbatim, anonymising all participants. Following transcription, the transcripts will be uploaded to NVivo, all transcripts coded, and a thematic analysis will be completed, aligned with Braun and Clarke's steps (45). Node matrices may be utilised according to any sub-groups into which participants have been allocated. This will help to identify similarities and differences within and between these groups. The thematic analysis will involve several phases: familiarisation with the data (achieved via listening to the audio recordings and reading through the transcripts), coding, theme-generation, synthesis, and write-up.

3. Personal Safety

Have you completed your departmental risk assessment procedures, if appropriate?

Not applicable

Raises personal safety issues?

No

All interviews will take place via the telephone and topic and participants are low risk

Section D: About the participants

1. Potential Participants

Participants will be a purposive sample of lead commissioners of alcohol and drug treatment services working within local authorities in England. They are local authority employed and not NHS.

A mixed methods sampling strategy will be used, namely stratified purposive sampling, based upon the findings from Phase One (29). Therefore, participants will be selected based on the following criteria:

- They represent one of four main groups of interest (Figure 1)
- The sample from within each group is as heterogeneous as possible to represent differences in levels of deprivation and percentage changes in investment / disinvestment.

Group 1

Decreased investment, improved treatment outcomes Group 2

Increased investment, improved treatment outcomes Group 3

Decreased investment, deteriorated treatment outcomes Group 4

Increased investment, deteriorated treatment outcomes Figure 1: Proposed sampling of commissioner population

I will aim to achieve theoretical saturation through the interviews (30,32) and envisage recruitment of a sample size of circa. 20 participants.

2. Recruiting Potential Participants

To build rapport with potential participants, I will contact lead commissioners and seek permission to send them a summary of my Phase One research and a participant information sheet. This will be followed-up by contact to ask whether they would be happy to participate. Informed consent is considered below in ethical considerations. Often, the contact details of alcohol and drug teams within Local Authorities are publicly available via authority websites.

Where an email address is available for a participant, I will initially contact by email, including a brief description of my study and anticipated duration of the interview. If a telephone number of the drug and alcohol commissioning team is available, I will phone them and ask to speak to the lead commissioner. If the contact details are not available on the

internet, I will contact the local authority, via their main switchboard, to identify the lead commissioner's contact details. Local authorities are public sector bodies and are expected to facilitate contact with specific officers in response to specific and relevant queries.

The primary purpose of my first contact with potential participants will be to cover some of the key concepts from the participant information sheet, including:

- Project purpose
- That participation is voluntary
- Confidentiality and anonymity
- Recording of interviews
- What will happen with the research results.

Participants will be advised that I will provide a breakdown of the results from Phase One prior to interview.

2.1. Advertising methods

Will the study be advertised using the volunteer lists for staff or students maintained by CiCS? No - *not entered* -

3. Consent

Will informed consent be obtained from the participants? (i.e. the proposed process) Yes

A consent form will be emailed to potential participants in advance of the interviews, alongside a participant information sheet. Contact details will be provided so that any concerns or questions can be raised prior to providing consent. Oral consent, after reading the consent form, will be requested at the start of the recorded telephone interview.

4. Payment

Will financial/in kind payments be offered to participants? No

5. Potential Harm to Participants

What is the potential for physical and/or psychological harm/distress to the participants?

The anticipated harm or distress to participants is minimal. There is a slight risk that the time scheduled to participate in interview may be inconvenient due to competing work pressures. There is no risk of physical or psychological harm as the interviews will take place via

telephone and the participant will be in their usual place of work and all transcripts, analysis and results will be anonymised.

How will this be managed to ensure appropriate protection and well-being of the participants?

This is how I intend to minimise any potential distress:

- I will ensure that all participants received a participant information sheet at least one week prior to scheduled interviews so they have sufficient time to read it through and come back to me with any points for clarification.
- The consent form will be emailed to participants at least 24 hours prior to the scheduled interviews and verbal consent obtained at the start of each interview.
- All emails will be sent via my University email address and no personal contact information provided other than a contact telephone number. Only official local authority emails will be used to communicate with the participants by email (to confirm identity).
- The questions I ask will focus on work-related matters and not individual efficacy.
- I will advise participants to book a meeting room from which we can have the telephone interview, to help make them feel more comfortable and protect their confidentiality.
- I will closely monitor the participant's wellbeing throughout the interview and if I feel that someone is becoming emotionally distressed, I will give them the option of continuing, taking a break or end the interview. If the latter option is taken, I will provide an opportunity to continue the interview at an alternative time.
- Any contact information for participants, sourced outside of what is available in the public domain, will be stored in an access restricted folder on the university's shared network filestore (accessed by the VPN).
- All audio recordings will be uploaded on to an access restricted folder on the university's shared network filestore (accessed by the VPN), with a label which does not identify participants, for example P01 (participant 01). The recordings on the encrypted digital recording device (loaned via CiCS) will be deleted from the device as soon as they have been successfully uploaded.
- I will transcribe all of the interviews and make no reference to specific individuals or places will be made. Pseudonyms will be provided, and a key developed for reference.
- Transcripts will also be saved on an access restricted folder on the university shared network filestore (accessed via the VPN) on an encrypted laptop and will contain no personal or local authority identifiable information.
- My personal laptop (restricted for sole use) will be utilised for data analysis (and encrypted).

- **Section E: About the data**

1. Data Processing

Will you be processing (i.e. collecting, recording, storing, or otherwise using) personal data as part of this project? (Personal data is any information relating to an identified or identifiable living person).

No

Please outline how your data will be managed and stored securely, in line with good practice and relevant funder requirements

(Please also see previous section). All data saved in relation to this phase of the research will be saved within an access restricted folder on the University's Shared Network Filestore. This will be accessed via the VPN on an encrypted laptop (restricted for sole use). Members of the supervision team will be provided with access to subfolders of the main project file to be able to access anonymised transcripts and analysis.

All participants' data will be anonymised, adopting unique reference identifiers to maintain confidentiality. A participant information sheet has been developed explaining how the data will be saved and presented will be provided and explained before oral consent for participation at the start of each recorded interview. Any contact information for participants, sourced outside of what is available in the public domain, will be stored in an access restricted folder on the university's shared network filestore (accessed by the VPN).

The interviews will be digitally recorded using an encrypted device loaned from CiCS. The digital recordings will be securely deleted from the device as soon as they are uploaded into the access restricted folder. The recordings of the interviews will not be labelled by participant name or initials. I will transcribe all of the interviews individually and make no reference to specific individuals or places will be made. Pseudonyms will be provided, and a key developed for reference. The supervisor team will have access to specific folders to access anonymised transcripts and analysis, as required.

The data analysis will be undertaken on the researcher's laptop (restricted to sole use) which will be encrypted by the University. The work will be undertaken at home in a private office.

All data gathered during this phase of the research will be permanently destroyed following the completion of the research and confirmation of the PhD (estimated 31 March 2021). Notification of this will be given to participants within the participant information sheets.

I will advise participants to book a meeting room from which we can have the telephone interview, to help protect their confidentiality.

The University of Sheffield is the data controller.

Section F: Supporting documentation

Information & Consent

Participant information sheets relevant to project? Yes

[Document 1068232 \(Version 3\)](#)

Consent forms relevant to project? Yes

[Document 1068233 \(Version 3\)](#)

Additional Documentation

[Document 1068236 \(Version 2\)](#)

Data management plan for phase 2

[Document 1068235 \(Version 1\)](#)

Confirmation review

[Document 1068234 \(Version 1\)](#)

Interview topic guide

External Documentation - *not entered* -

Section G: Declaration

Signed by:

Suzie Roscoe Date signed:

Thu 25 July 2019 at 10:06

Appendix Fourteen

Phase Two: Ethics approval



Downloaded: 18/06/2021 Approved: 25/07/2019

Suzanne Roscoe
Registration number: 170254106 School of Health and Related Research
Programme: PhD

Dear Suzanne

PROJECT TITLE: The impact of public health disinvestment on alcohol and drug treatment and recovery from alcohol and drug dependence in England - Phase Two.

APPLICATION: Reference Number 030159

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 25/07/2019 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 030159 (form submission date: 25/07/2019); (expected project end date: 31/03/2021).
- Participant information sheet 1068232 version 3 (23/07/2019).
- Participant consent form 1068233 version 3 (23/07/2019).

If during the course of the project you need to [deviate significantly from the above-approved documentation](#) please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

Jennifer Burr
Ethics Administrator
School of Health and Related Research

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy: <https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/approval-procedure>
- The project must abide by the University's Good Research & Innovation Practices Policy: <https://www.sheffield.ac.uk/polopoly fs/1.671066!/file/GRIPPolicy.pdf>
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix Fifteen

Phase Three: Ethics application



Application 031439

Section A: Applicant details

Date application started:

Fri 25 October 2019 at 16:03

First name:

Suzanne

Last name:

Roscoe

Email:

smroscoe1@sheffield.ac.uk

Programme name:

ScHARR

Module name:

PhD

Last updated:

28/02/2020

Department:

School of Health and Related Research

Applying as:

Postgraduate research

Research project title:

Recent changes in investment in, and the provision of, alcohol and drug treatment services.

Has your research project undergone academic review, in accordance with the appropriate process? Yes

Similar applications: 030159 and 018529

Section B: Basic information

Supervisor Name Petra Meier

1. **Email**

p.meier@sheffield.ac.uk

Proposed project duration

Start date (of data collection): Thu 27 February 2020

Anticipated end date (of project) Wed 31 March 2021

3: Project code (where applicable)

Project externally funded?

- *not entered*

Project code - *not entered* –

Suitability

Takes place outside UK?

No

Involves NHS?

No

Health and/or social care human-interventional study?

No

ESRC funded?

No

Likely to lead to publication in a peer-reviewed journal?

Yes

Led by another UK institution?

No

Involves human tissue?

No

Clinical trial or a medical device study?

No

Involves social care services provided by a local authority?

No

Is social care research requiring review via the University Research Ethics Procedure No

Involves adults who lack the capacity to consent?

No

Involves research on groups that are on the Home Office list of 'Proscribed terrorist groups or organisations? No

Indicators of risk

Involves potentially vulnerable participants? No

Involves potentially highly sensitive topics? No

Section C: Summary of research

2. Aims & Objectives

The aim of this research is to generate evidence on the impact of local authority public health disinvestment from alcohol and drug treatment services in England.

The three main objectives of the research are to:

1. Examine the changes in investment in alcohol and drug treatment services between 2013/14 and 2017/18 and the relationship between the scale of public health disinvestment and treatment access and successful outcomes.

2. Develop an in-depth understanding of commissioners' perspectives of the impact of changes in investment in alcohol and drug treatment services, and its relationship to changes in treatment outcomes.
3. Explore, by surveying a large sample of commissioners, the generalisability of Phase Two findings with regards on the impact of changes in investment in alcohol and drugs treatment services within England.

Study design overview and justification for methods

A sequential mixed methods design is being used to address the above objectives.

The study comprises three sequential phases and ethics approval has already been granted for phases 1 and 2. This application seeks approval for Phase Three.

Phase 1: Analysis of routine data to identify the relationship between investment in alcohol and drug treatment services (in 151 of 152 local authorities in England between 2013/14 and 2017/18) and i) the numbers accessing treatment and numbers successfully completing treatment, ii) alcohol-specific hospital admissions and iii) alcohol-specific and drug-related mortality trends across England in disinvestment in alcohol and drug treatment services and the associated impact. The results of this analysis, and the issues identified in the literature review, informed the topic guide for phase

2.

Phase 2: In-depth semi-structured interviews with a purposive sample of 14 commissioners to explore perceptions of reasons for the observed trends and the impact of disinvestment. This helped to develop an in-depth understanding of the perceived impact of disinvestment and inform the development of a questionnaire for use in phase 3 (for which this application is being submitted).

Phase 3: A national cross-sectional survey, targeting commissioners of alcohol and drug services across all 151 England local authorities, to examine the generalisability of findings from phases 1 and 2.

The objectives for phase 3 (survey) are to examine the generalisability of the findings from Phases 1 and 2 to England's substance misuse commissioners (in relation to the local authority in which they work), including:

1. Differing trends in (dis)investment and outcomes and the association between them
2. Procurement activity

3. Specific observed changes to commissioning linked to investment / disinvestment such as range, type, availability, reach and quality of services
4. Changes in impact / outcomes of alcohol and drug treatment services
5. Drivers of change
6. In addition to identifying:
 - o If and how recovery and other success are measured locally
 - o Examples of good practice in relation to the commissioning or provision of services to improve treatment access and successful outcomes.

Some non-personal data will be sought in relation to the participant's job role and the name of the local authority for which they work. This is to support the triangulation of data from phases 1 and 3, not to identify specific local authorities in the write-up of the research. For example, it may include adding in procurement activity dates into the phase 1 dataset in order to control for procurement in the linear mixed model.

2. Methodology Specific to phase 3:

The findings of phases 1 and 2 of this research have informed the development of a questionnaire to conduct a nationwide survey of alcohol and drug treatment commissioners in England's local authorities.

Survey design:

The survey has been designed in Qualtrics to enable online completion by participants. A draft survey is shared with the Ethics Committee for consideration as part of this ethics application. It is a multiple item questionnaire, comprising multiple-choice questions, Likert scales and free text response questions. It is anticipated that the survey will take approximately 20 minutes to complete. The survey has been piloted (week commencing 27.01.2020) and feedback utilised to inform the final edit of the survey and guide the estimated time to complete it.

Recruitment:

The contact details of 151 commissioners are currently being gathered via Public Health England's regional leads, publicly available information via the internet and snowballing. Once these avenues have been exhausted, I will contact any remaining local authorities via their main contact telephone number or email address and ask to speak to the commissioner (as utilised to support phase 2 recruitment). Subject to ethics approval, I aim to launch the

survey in February 2020. All the commissioners for whom I have contact details will be emailed via Qualtrics to participate.

IBM SPSS will be set up to upload the information gathered through the survey and used to undertake descriptive and statistical analysis. If a substantial amount of freetext is gathered via the survey, some additional analyses may also be undertaken in NVivo.

3. Personal Safety

Have you completed your departmental risk assessment procedures, if appropriate?

Not applicable

Raises personal safety issues?

No

All survey will be completed online via remote venues.

Section D: About the participants

1. Potential Participants

The contact details of 151 commissioners are currently being gathered via Public Health England's regional leads, publicly available information via the internet and snowballing. Once these avenues have been exhausted, I will contact any remaining local authorities via their main contact telephone number and ask to speak to the commissioner (as utilised to support phase 2 recruitment).

2. Recruiting Potential Participants

Potential participants will be contacted by Qualtrics' email to participate, a participation information sheet will be attached, specific to this phase of the research. This will explain the basic aim(s) of the research, what will happen with the data (included how it will be stored, analysed and presented) and include details of persons to contact to raise any concerns or ask questions. Within the email, participants will be informed that they will only be able to participate if they ticked all relevant fields of the consent form at the start of the survey. There will then be a link to the survey. Simultaneously I will email all potential participants via my Sheffield University email address to advise that the survey is being sent via Qualtrics (noreply@qemailserver.com) so that they are aware the link is genuine (draft email also attached).

The survey has been formatted to make response to all consent fields compulsory.

Reminders will be circulated at one week and two weeks from launch of the survey via Qualtrics email. After three weeks, potential participants will receive a final reminder that they have one week left to participate. This email will be generated from Qualtrics.

2.1. Advertising methods

Will the study be advertised using the volunteer lists for staff or students maintained by CiCS? No - *not entered* -

3. Consent

Will informed consent be obtained from the participants? (i.e. the proposed process) Yes

A consent form has been built into the Qualtrics survey to ensure that participants provide their consent prior to survey completion. This has been constructed to ensure response to all consent fields is compulsory prior to proceeding with the survey. My contact details (as well as my primary supervisor's) will be provided within the email and participant information sheet so that any questions or concerns can be raised prior to survey completion.

4. Payment

Will financial/in kind payments be offered to participants? No

5. Potential Harm to Participants

What is the potential for physical and/or psychological harm/distress to the participants?

The anticipated harm of distress to participants is minimal. The time it takes to complete the survey may be a pressure in terms of workload, which is why the survey will be open for a month and can be returned to multiple times to complete fields prior to submission. There is no risk of physical or psychological harm as the participant involvement is remote and take place online. Participants will be asked to confirm the local authority for which they work in order to support triangulation of data from Phase One. However, the write-up of the analysis will not identify specific local authorities unless specific consent has been gained to share specific examples of perceived good practice. Where participants are invited to provide specific work examples within the survey, participants are asked whether they are happy for them to be shared as anonymized examples, or whether it can be linked to the local authority or whether it can be incorporated for analyses only and not to be shared in any format.

How will this be managed to ensure appropriate protection and well-being of the participants?

I will minimise stress to participants by:

- Using an online format to give participants flexibility as to where, and when, they complete it
- Keeping the survey open for a month to enable flexibility to schedule it into diaries
- Ensuring participants have time to review the participant information sheet prior to accessing the online survey and having opportunity to contact the research time should any questions arise
- Qualtrics is the university-approved survey software and will securely store responses. Analysis using this data will be saved in an access restricted folder on the university shared network filestore (accessed on campus or via the VPN on an encrypted laptop when working remotely).

I will conform to tight data security procedures to protect the well-being of the participants.

Section E: About the data

1. Data Processing

Will you be processing (i.e. collecting, recording, storing, or otherwise using) personal data as part of this project? (Personal data is any information relating to an identified or identifiable living person).

No

Please outline how your data will be managed and stored securely, in line with good practice and relevant funder requirements

(Please also see previous section). The survey will be conducted via Qualtrics, licensed via the University of Sheffield, and has ISO 27001 certification to ensure data security.

All survey data will be anonymised, adopting unique reference identifiers (as per Phase One) to maintain confidentiality. There may be the exception of "good practice" examples which may be identifiable to a local authority but as explained earlier, specific consent to do this will be sought within the survey and this data will be kept separately. Information with regards to confidentiality and data storage will be included within the participant information sheet which will be included with the email to potential participants.

This list of contact email addresses, whilst likely to be available in the public domain, will be stored as a separate access- restricted folder restricted solely to Suzie Roscoe.

The data gained via the survey will be uploaded to IBM SPSS (and if relevant, NVivo) and saved on the aforementioned access-restricted folder.

Anonymised data selected for long-term preservation and sharing will be stored on the University Filestore University for ten years before being destroyed on 28 February 2030. In the event I leave the University before this date, Professor Petra Meier, the student's supervisor will be responsible for deletion of the archived data.

The University of Sheffield is the data controller.

Section F: Supporting documentation

Information & Consent

Participant information sheets relevant to project? Yes

[Document 1075180 \(Version 2\)](#) All versions

Consent forms relevant to project? Yes

[Document 1075181 \(Version 2\)](#) All versions

Additional Documentation

[Document 1078407 \(Version 1\)](#) Amendment approval letter All versions
Apr20

[Document 1076111 \(Version 1\)](#) All versions

Simultaneous draft Uni email

[Document 1075186 \(Version 2\)](#) All versions

Data management plan

[Document 1075193 \(Version 1\)](#) All versions

Confirmation review for ISR

[Document 1075185 \(Version 2\)](#) All versions

Survey download

[Document 1075187 \(Version 1\)](#) All versions

Draft recruitment email

External Documentation - *not entered* –

Section G: Declaration

Signed by: Suzie Roscoe Date signed: Fri 28 February 2020 at 09:27

Appendix Sixteen

Phase Three: Ethics approval



Downloaded: 18/06/2021

Approved: 16/05/2018

Suzanne Roscoe

Registration number: 170254106 School of Health and Related Research Programme: PhD

Dear Suzanne

PROJECT TITLE: The impact of Public Health financial disinvestment on recovery from drug and alcohol dependence **APPLICATION:** Reference Number 018529

This letter confirms that you have signed a University Research Ethics Committee-approved self-declaration to confirm that your research will involve only existing research, clinical or other data that has been robustly anonymised. You have judged it to be unlikely that this project would cause offence to those who originally provided the data, should they become aware of it.

As such, on behalf of the University Research Ethics Committee, I can confirm that your project can go ahead on the basis of this self-declaration.

If during the course of the project you need to [deviate significantly from the above-approved documentation](#) please inform me since full ethical review may be required.

Yours sincerely

Charlotte Claxton Departmental Ethics Administrator

Appendix Seventeen

Phase Three: ethics amendment and approval



**The
University
Of
Sheffield.**

School Of
Health
And
Related
Research.

Charlotte Claxton
Ethics Committee Administrator
Regent Court
30 Regent Street
Sheffield S1 4DA

24 April
2020

Telephone: +44 (0) 114 222 5446 **Email:** c.claxton@sheffield.ac.uk

Project title: The impact of public health disinvestment from alcohol and drug treatment for adults in England - a nationwide survey of local authority commissioners

Reference Number: 031439

Dear Suzie,

Thank you for submitting the above amended research project for approval by the SchARR Research Ethics Committee. On behalf of the University, I am pleased to inform you that the project with changes was approved.

If during the course of the project you need to deviate significantly from the documents you submitted for review, please inform me since written approval will be required.

Yours sincerely

Charlotte Claxton

On behalf of the SchARR Research Ethics Committee

NOTICE OF AMENDMENT

For use in the case of all research where an amendment is made.

To be completed as a word document by the Chief Investigator in language comprehensible to a lay person and submitted to the Ethics Administrator.

Further guidance is available at <http://www.shef.ac.uk/scharr/research/ethicsgovernance>

Details of Chief Investigator:	Suzanne Roscoe
<i>Name:</i>	Suzanne Roscoe
<i>Type of ethics application: for example: PGR/PGT or Staff</i>	PGR
<i>Telephone:</i>	07967151698
<i>Email:</i>	Smroscoe1@sheffield.ac.uk

Full title of study:	The impact of public health disinvestment from alcohol and drug treatment for adults in England - a nationwide survey of local authority commissioners
REC reference number (if known):	031439
Date study commenced:	2 nd March 2020 (This phase)
Amendment number and date (for office use):	

Type of amendment (indicate all that apply in bold)

(a) *Amendment to information previously given on the REC Application Form*

Yes -No

If yes, please refer to relevant sections of the REC application in the “summary of changes” below.

(b) *Amendment to the protocol*

Yes No

If yes, please submit either the revised protocol with a new version number and date, highlighting changes in bold, or a document listing the changes and giving both the previous and revised text.

(c) Amendment to the information sheet(s) and consent form(s) for participants, or to any other supporting documentation for the study

Yes No

If yes, please submit all revised documents with new version numbers and dates, highlighting new text in bold.

Is this a modified version of an amendment previously notified to the REC?

Yes No

Summary of changes

Briefly summarise the main changes proposed in this amendment using language comprehensible to a lay person. Explain the purpose of the changes and their significance for the study.

If the amendment significantly alters the research design or methodology, or could otherwise affect the scientific value of the study, supporting scientific information should be given (or enclosed separately). Indicate whether or not additional scientific critique has been obtained.

I would like to seek approval to have another launch of the survey towards the end of June. I launched the survey on 3rd March for a period of 4 weeks. The Covid-19 pandemic was declared by the World Health Organisation on 11 March 2020 and a week later schools closed in England before a period of lockdown was announced. The intended participants for the survey work within public health departments and since the pandemic was declared, public health staff have been called to develop strategic and frontline responses.

I have had several emails from alcohol and drug treatment commissioners who have expressed a want to participate but have explained they have been unable due to coordinating Covid responses. Participation was fairly high within the first week of the survey launching and a total of 41 surveys were completed.

Therefore, I would like authorisation to re-launch the survey for a further two weeks, during the summer, to hopefully enable more people to participate.

The same survey would be utilised, participants who have already completed the survey would not be re-contacted and emails would be generated as per the original application.

Any other relevant information

Applicants may indicate any specific ethical issues relating to the amendment, on which the opinion of the REC is sought.

Not applicable.

List of enclosed documents

<i>Document</i>	<i>Version</i>	<i>Date</i>

Declaration by Chief Investigator

- I confirm that the information in this form is accurate to the best of my knowledge and I take full responsibility for it.

Signature of Chief Investigator:

Print name: Suzanne Roscoe

Date of submission: 08.04.2020

Declaration by the supervisor (if appropriate)

- I confirm the supervisors support for this amendment.

Print name:

Post:

Date:

Appendix Eighteen

PPI research summary

Title: The impact of Public Health disinvestment on alcohol and drug treatment and recovery from alcohol and drug dependence in England.

Suzie Roscoe

What is commissioning?

1. The commissioning of alcohol and drug treatment services refers to a cycle of strategic activity involving needs assessment and planning to provide an appropriate response (Figure 1)
2. Within local authorities, commissioning should ensure the best possible value for public money in terms of effectiveness of services within the budget available
3. This will often include procurement activity, where commissioners develop service specifications and contracts highlighting key activities and processes required and what outcomes they would like a service to achieve.
4. This can follow with advertisement on an open market to invite applications from suitable treatment providers. This will often be part of a broader action plan, outlining key activities to be delivered via a multi-agency approach:



Courtesy of The NHS Information Centre for health and social care. Full diagram available at: www.ic.nhs.uk/commissioning

Figure 1: Commissioning cycle

Why am I looking into it?

5. Over 10 million people in England drink alcohol at levels which put their health at risk and 2.7 million adults take an illicit drug each year; almost 600,000 adults of whom are estimated to be dependent on alcohol and 300,783 dependent on heroin or crack cocaine. An increasing number of people are having problems with new psychoactive substances and cannabis
6. The associated estimated annual financial burden exceeds £32 billion
7. Strong evidence-base that effective treatment is beneficial in terms of improving health and social outcomes and reducing cost pressures
8. Despite growing alcohol and drug harm, there has been substantial national government disinvestment in alcohol and drug treatment services:

*Table 1: Overview of public health alcohol and drug treatment spend in England 2013 to 2018¹¹
(revenue account budget – final outturn)*

Year	Public health budget invested in adult drug treatment	Public Health budget invested in adult alcohol treatment	Total public health budget invested in adult drug and alcohol treatment
2013/14	£ 596,429,000	£ 201,302,000	£ 797,731,000
2014/15	£ 601,875,000	£ 209,459,000	£ 811,334,000
2015/16	£ 530,026,042.01	£ 239,910,395.24	£ 769,936,437
2016/17	£ 492,920,743.88	£ 240,757,451.46	£ 733,678,195
2017/18	£ 459,026,162.51	£ 232,214,501.94	£ 691,240,664
Total change in investment	-£ 137,402,837.49	£ 30,912,501.94	-£ 106,490,336

9. Over the same time period, the numbers accessing treatment, and the proportion of those successfully completing treatment, have declined
10. Despite an increase in investment in alcohol treatment services between 2013 and 2017, the number of people accessing treatment compares unfavourably to those accessing drug treatment, which experienced large disinvestment
11. Alcohol-related hospital admissions and alcohol and drug-related deaths have continued to rise.

The three main objectives are to:

- i. Examine the changes in investment in alcohol and drug treatment services between 2013/14 and 2017/18 and the relationship between the scale of Public Health disinvestment and treatment access and outcomes

¹¹ Unadjusted for inflation (286)

- ii. Develop an in-depth understanding of commissioners' perspectives of the impact of changes in investment in alcohol and drug treatment services, and its relationship to changes in treatment outcomes. This will also include examples of innovative practice in the provision of recovery opportunities and identifying local measures of recovery success
- iii. Explore, by surveying a large sample of commissioners, their views on the impact of changes in investment in alcohol and drugs treatment services within England.

How am I planning on doing the study?

12. Three-phase mixed methods design (Figure 2):

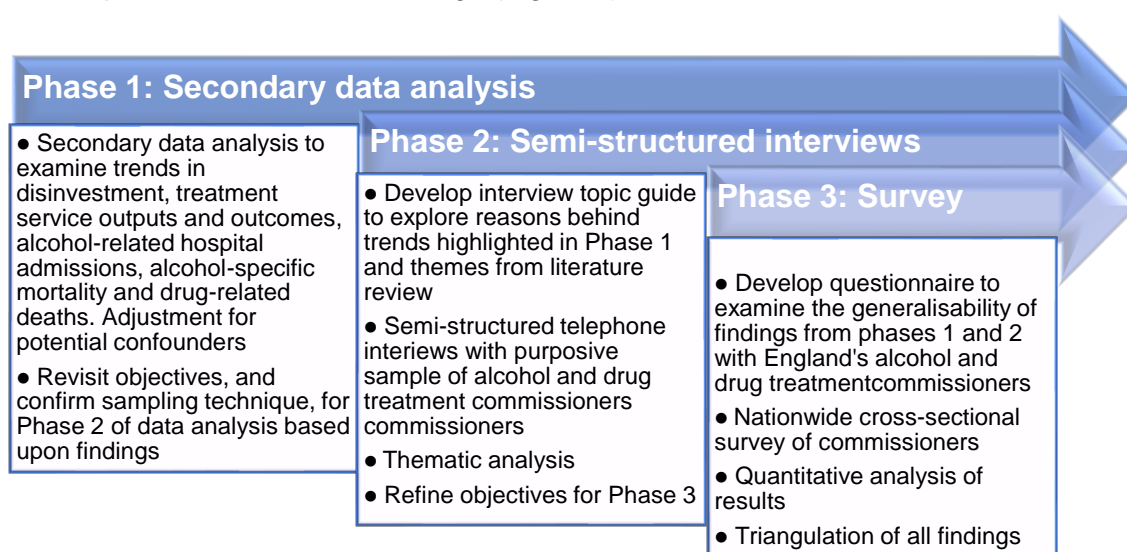


Figure 2: Overview of the planned mixed methods study

This study aims to:

- 13. Generate evidence on the impact of local authority disinvestment in substance misuse treatment services in England on treatment access and associated outcomes
- 14. Aid future strategic and commissioning decision-making in the public sector
- 15. To contribute to budget decision-making at a national level.

How you can support:

- 16. Offer your views on the planned study
- 17. Review results at each phase
- 18. Suggest ideas for questions to be asked at interviews and included within the questionnaire as they are developed.

Many thanks for listening!