



Public Health
England

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2016-17 Alcohol and Drugs Treatment Commissioning Tool: Guidance document

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Contents

1. Introduction.....	3
2. Cost calculator.....	4
3. Prevalence estimates	9
4. Cost effectiveness and scenario planning	12
<i>Options.....</i>	<i>12</i>
<i>Comparing treatment pathways within an LA.....</i>	<i>14</i>
<i>Interpreting the sub-interventions data.....</i>	<i>15</i>
<i>Comparing different treatment pathways against a benchmark</i>	<i>16</i>
5. Improving cost-effectiveness	17
<i>Improving data recording.....</i>	<i>17</i>
<i>Reducing the unit costs of treatment.....</i>	<i>17</i>
<i>Ensuring clients are in treatment for an appropriate length of time and help more people recover from their dependency.....</i>	<i>17</i>
Appendix A. Estimating unit costs	20

1. Introduction

This tool helps local authorities understand and improve the cost-effectiveness of structured treatment for substance misuse. This is the second iteration of the tool, which has been updated and improved following feedback from key stakeholders.

The tool can be used to identify where costs are unusually low or high, as well as potential cost savings, while maintaining effective support for those in need. It is not a tool that will provide solutions on its own, but is intended to point the way to further exploration of treatment effectiveness, service configuration and how to meet local need in your area.

The accuracy of the cost-effectiveness results is dependent on the local authority financial returns to the Department for Communities and Local Government (DCLG) and treatment data submitted to the National Drug Treatment and Monitoring System (NDTMS). Any inaccuracies in these submissions will produce misleading results

The Tool comprises:

1. a *cost calculator* to help local commissioners estimate how much is planned to be spent on treatment, prevention and recovery interventions in 2016-17
2. local *prevalence estimates* of dependence, which provide an indication of the level of need for alcohol and drug treatment in each local authority
3. a local *cost-effectiveness analysis (CEA)* exploring the relationship between spend and successful completions of treatment
4. a *scenario planner* function, integrated within the CEA tables, allowing users to estimate the impact on future local outputs by adjusting:
 - unit costs and treatment expenditure
 - the proportion of people accessing local treatment services
 - the proportion of successful completions¹

We have produced this tool to aid decision-making and PHE is not liable for any decisions that are made using information in this tool. The best available evidence has been used and any assumptions have been clearly stated.

You are reminded that access to the data contained within this report is controlled and is provided for management, quality assurance, and briefing purposes only. Please prevent inappropriate use by handling the information as restricted, and do not pass the information on to others who have not been given prior access, and use it only for the purposes for which it has been provided.

We are committed to making sure the Commissioning Tool is helpful and welcome your feedback on how we can improve the tool. If you do have any feedback, please send it to us at HealthEconomics@phe.gov.uk FAO the ADT Value for Money team.

¹ A clinical judgement that the individual no longer has a need for structured treatment, having achieved all the care plan goals and overcome dependent use of the substances that brought them into treatment.

2. Cost calculator

Local authorities report their annual forecasted and actual public health expenditure to the Department for Communities and Local Government (DCLG). For 2016-17, the national estimated budgeted expenditure on adult drug misuse services was £481m (85% estimated to be spent on structured treatment), with a further £222m being spent on adult alcohol services (83% on structured treatment).

The default setting in the Commissioning Tool is to assume that the local revenue accounts (RAs) of net current expenditure on adult drug and alcohol interventions published by DCLG are an accurate reflection of LA planned expenditure on interventions to address substance misuse. We have used the RAs for the following reasons:

1. **Current picture.** The DCLG financial returns are submitted by local councils and so represent our best estimate of what was likely spent on alcohol and drug services in 2016-17 in each area.
2. **Improving reporting.** The data collection exercise is relatively new and anecdotal evidence suggests that local councils have found it challenging to report spend on adult alcohol and adult drugs interventions separately. We hope that by using the Commissioning Tool, inaccurate financial returns will be evident to local authorities and that reporting and data quality in the future will improve.
3. **Consistency.** Other PHE tools, such as the Spend and Outcomes Tool (SPOT) use the DCLG returns for local estimated spend against the public health grant, including substance misuse.

Published unit costs and NDTMS activity data are used to estimate annual and daily spend for different structured interventions and settings. Expenditure data are divided into four unit cost categories of high-level interventions/ settings: (1) community pharmacological, (2) community psychosocial, (3) inpatient detoxification and (4) residential rehabilitation.

Inpatient and residential rehabilitation are settings in which pharmacological and/or psychosocial interventions could take place, but have been aggregated for costs and analysis purposes to better reflect the type of expenditure information commissioners are more likely to have to hand. National estimates of daily expenditure derived from previous studies are used to account for how much more/less expensive one intervention is compared to another. These are adjusted to 2016-17 prices using the Treasury's GDP deflator.² These unit costs are based on a 2007-08 data collection exercise³ which predate the current and previous Drugs Strategy, as well as Health and Social Care Act 2012.

Table 1: Unit costs (2016-17prices)

Intervention/ setting	Spend per day (drugs)	Spend per day (alcohol)
Pharmacological	£8.17	£6.27
Psychosocial	£10.19	£14.53
Inpatient treatment	£164.72	£164.72
Residential treatment	£103.57	£103.57

²We also apply the Department of Health Market Forces Factor to national averages when estimating local costs to account for differential staff and premises costs across the country.

³See the 2010 UK Focal Point report for more information

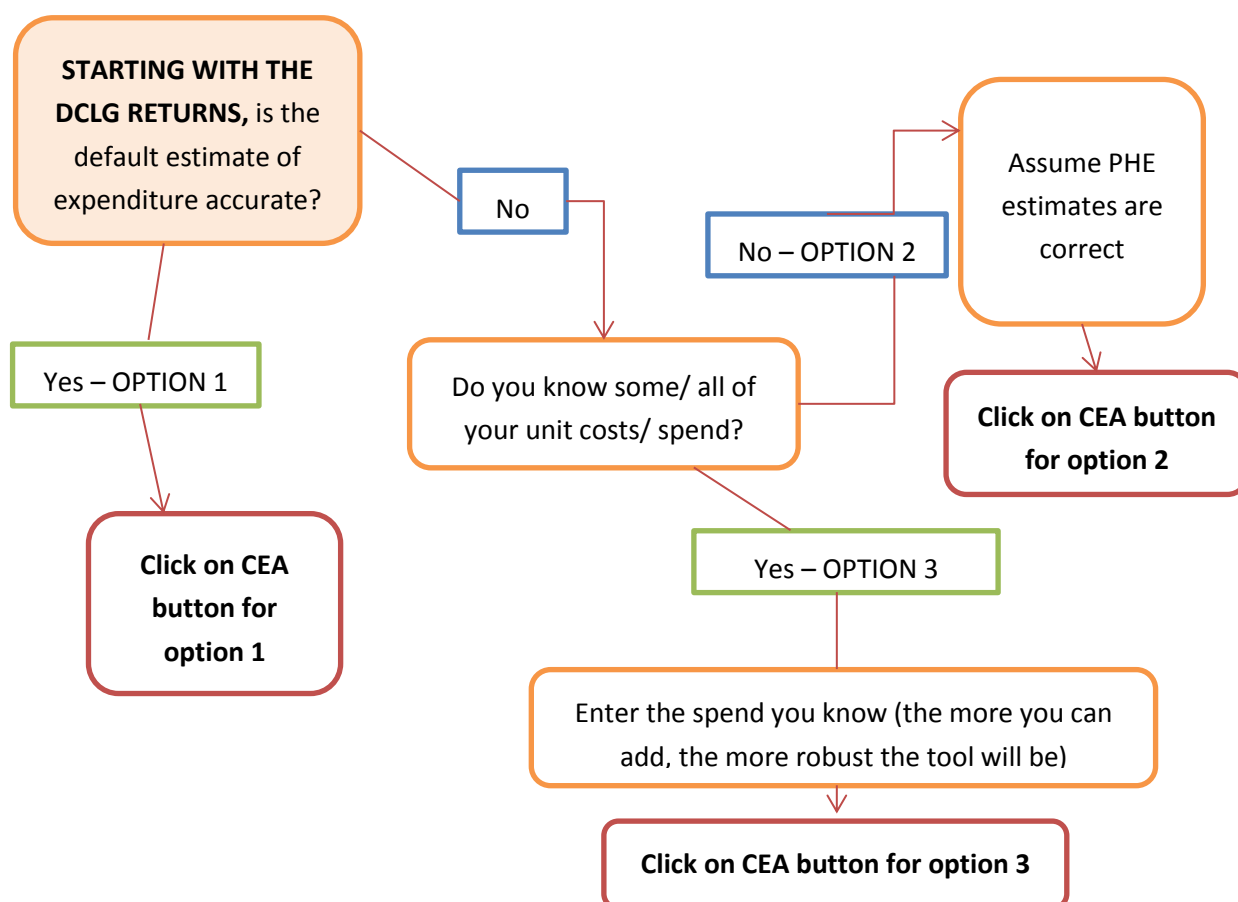
There are two approaches to estimating spend per day⁴ top-down and bottom-up.⁵ The top-down approach is relatively straightforward: divide total expenditure by total units of activity (for more detail see appendix A). The Calculator automatically uses the top down approach (at varying levels of accuracy) to estimate spend and assumes, other things being equal, the relative spend per day based on the figures in table 1, so, for example, daily spend associated with residential rehabilitation for drug dependency is 13 times more expensive in an LA than pharmacological interventions in the community (£103.57 vs. £8.17 respectively).

For the purposes of this tool, the estimated spend on people adjunctively using both alcohol and non-opiates is included in the 'drugs' spend.

Cost calculator options

We have provided three options for estimating top-down expenditure for use in the cost-effectiveness analysis section of the tool in order of likely robustness (least to most).

Figure 1: Cost calculator flow-chart



⁴ A unit cost captures the total cost of providing one unit of a service, such as residential rehabilitation. Unit costs should: include all service provision costs – direct costs, indirect costs (e.g. heating and lighting, time and travel costs) and overheads (e.g. HR and finance); include 'intention to treat' costs – such as triage assessment costs for people who choose not to engage with a treatment provider, drop out of treatment, or are referred elsewhere; and add up to the total cost of service provision.

⁵ The bottom-up approach requires greater detail than the top-down method: all resources used to provide a service, such as staff, prescribed drugs and premises, need to be identified and a value assigned to each. To calculate the unit cost, the values are then summed and multiplied by the unit of activity. Breaking down costs in this way establishes transparent and more robust estimates and allows commissioners to explore drivers of variation, such as whether some service users account for a disproportionate share of the costs. This method is more reliable for forecasting how costs can change as a result of a reduction in service usage or demand. For more information, see: [A guide to social return on investment for alcohol and drug treatment commissioners](#).

Option 1 – assuming DCLG breakdowns are correct

Based on the reported spend on each of the four DCLG categories (1) structured drug treatment, (2) structured alcohol treatment, (3) non-structured drug treatment and (4) non-structured alcohol treatment, we can use NDTMS and published unit costs data to estimate annual and daily spend for different structured interventions and settings (see figure 2) which can then be used to calculate cost-effectiveness of different treatment pathways.

Crude estimates assume the reported DLG data on structured treatment is accurate and apportion spend based on NDTMS data and publically available unit costs. Option 1 requires no additional work from the user.

Figure 2: Option 1 daily spend example

INTERVENTIONS/SETTINGS	CRUDE ESTIMATE (DCLG RETURN LED ESTIMATE)			
	DRUGS		ALCOHOL ONLY	
	SPEND	DAILY SPEND	SPEND	DAILY SPEND
Community pharmacological	£ 308,210	£ 5.34	£ 4,736	£ 5.16
	38%		2%	
Community psychosocial	£ 464,189	£ 6.65	£ 192,264	£ 11.96
	58%		98%	
Inpatient detoxification	£ 538	£ 107.55	£ -	£ -
	0%		0%	
Residential rehabilitation	£ 28,064	£ 67.62	£ -	£ -
	4%		0%	
TOTAL	£801,000		£197,000	

If users are happy with the breakdown of spend in option 1, by clicking on the blue ‘Go to CEA’ icon they can progress to the cost effectiveness section. Unit costs from the cost calculator will automatically be used to populate the scenario planner and calculate the cost-effectiveness of different treatment pathways.

Option 2 – assuming overall expenditure in the DCLG returns are correct, but that the proportion spent on drugs and alcohol treatment is incorrect.

While the financial returns are broken down by substance type and structured/ non-structured interventions, analysis and anecdotal evidence suggests that the sum of drugs and alcohol is a more accurate reflection of expenditure. This is most likely because adult substance misuse services are mostly integrated, with providers typically treating both drug and alcohol users and service users often presenting with dependency to both alcohol and drugs, thus isolating the specific spend on drug or alcohol treatment can be challenging.

As NDTMS does not capture activity outside of structured treatment, e.g. needle and syringe programmes or alcohol identification and brief advice, we assume that the DCLG reported planned spend on non-structured treatment is correct and that only structured treatment needs amending. Drug treatment (Exp_S^D) is a proportion of public expenditure on total structured treatment (alcohol and drugs) ($Exp_S^{A,D}$). This proportion is calculated based on the proportion of days spent on structured drug treatment (d_S^D), in the total of days (number of people multiplied by number of days) spent on drug and alcohol structured treatment ($d_S^{A,D}$).

$$Total\ Exp_{S,NS} = Exp_S + Exp_{NS} \tag{1}$$

$$Exp_S^{A,D} = Total\ Exp_{S,NS} - Exp_{NS}$$

$$d_S^{A,D} = d_S^A + d_S^D \tag{2}$$

$$Exp_S^D = Exp_S^{A,D} * (\frac{d_S^D}{d_S^{A,D}}) \tag{3}$$

Where Exp = Expenditure; D = Drug; A = Alcohol; S = Structured; NS = Non-structured; d = days

Using the same unit costs data as option 1 our best estimate of how the overall substance misuse budget is divided suggests a difference in the reported structured treatment spend for drugs and alcohol. Differences are highlighted in red (see figure 3).

Like option 1, option 2 requires no additional work from the user. If users are happy with the breakdown of spend, by clicking on the blue 'Go to CEA' icon they can progress to the cost-effectiveness section. Unit costs from the cost calculator will automatically be used to populate the CEA section.

Figure 3: Option 2 daily spend example

INTERVENTIONS/SETTINGS	OUR BEST ESTIMATE (NDTMS LED ESTIMATE)			
	DRUGS		ALCOHOL ONLY	
	SPEND	DAILY SPEND	SPEND	DAILY SPEND
Community pharmacological	£ 338,983	£ 5.87	£ 2,813	£ 3.07
	38%		2%	
Community psychosocial	£ 510,535	£ 7.32	£ 114,212	£ 7.10
	58%		98%	
Inpatient detoxification	£ 591	£ 118.29	£ -	£ -
	0%		0%	
Residential rehabilitation	£ 30,866	£ 74.38	£ -	£ -
	4%		0%	
TOTAL	£880,974		£117,026	

Hint

Accurate costing can be resource intensive and impractical. In cost-effectiveness analyses, economists and stakeholders must decide how specific the measurement of resources needs to be. As long as the total integrated substance misuse budget and NDTMS activity data is accurate, option 2 is arguably sufficient for the cost-effectiveness analysis.

This is because the daily costs for structured treatment in the Commissioning Tool are appropriately weighted by the total number of days spent in different interventions/ settings and the relative costs based on published literature. The more accurate data included, however, the more robust the tool will be.

Regardless of which option is chosen, all results should be interpreted with caution. This is particularly true if no amendments to local expenditure are made.

Option 3 - user input

Where better estimates of global spend on alcohol or drug treatment (high-level top-down) or intervention level spend (moderately top-down) are known, the expenditure on **any** of the interventions/ settings can be overwritten which will amend daily spend estimates. **A manual entry can be made in any yellow box** (see figure 4). This means that it is possible for the Calculator to include a mixture of known and assumed costs based on user input and the

parameters set; every time a new data item is included, the calculator adjusts the overall spend accordingly.

Note users cannot directly input daily spend estimates, as user feedback has intimated this would add an unnecessary layer of complexity (although this can be used by multiplying daily spend on an intervention/setting by the appropriate total number of days in treatment available in the annex of the tool).

By pressing the red reset button users can return to cost calculator estimates at any time.

Figure 4: Option 3 daily spend example

INTERVENTIONS/SETTINGS	USER INPUT			
	DRUGS		ALCOHOL ONLY	
	SPEND	DAILY SPEND	SPEND	DAILY SPEND
Community pharmacological	£ 338,983	£ 5.87	£ 2,813	£ 3.07
	38%		2%	
Community psychosocial	£ 510,535	£ 7.32	£ 114,212	£ 7.10
	58%		98%	
Inpatient detoxification	£ 591	£ 118.29	£ -	£ -
	0%		0%	
Residential rehabilitation	£ 30,866	£ 74.38	£ -	£ -
	4%		0%	
NEW TOTAL	£880,974		£117,026	

If users are happy with the breakdown of spend in option 3, by clicking on the blue 'Go to CEA' icon they can progress to the cost-effectiveness section. Any value entered in the yellow boxes will flow through to the calculation of estimated spend and unit costs and subsequently the cost-effectiveness of each intervention pathway for each LA.

We would be grateful if any updates or entries of spend data could be sent to us via the 'submit costs' to PHE button on the cost calculator tab included in the Tool. This will enable us to provide better benchmarked data in future and to have better estimates of national expenditure and unit costs.

3. Prevalence estimates

Using and interpreting rates of unmet need for: alcohol treatment; and drug treatment for opiate users

Prevalence

The prevalence figures used are the most recent estimates of the number of adults with alcohol dependence potentially in need of specialist treatment and of the number of opiate users, both at local authority level. The methodology used to produce the estimates can be found here (link to [Sheffield](#) and [LJMU](#) reports).

There are substantial differences between the current prevalence estimates for alcohol dependence and previous figures. The current estimates refer to the number of alcohol dependent adults potentially in need of specialist treatment while previous estimates have included the much larger number of those drinking at higher risk levels. At a national level, it is estimated that 1.8 million people are drinking at higher risk levels and of those, 595,000 are potentially in need of treatment for alcohol dependence.

Other interventions which are not relevant to these estimates should be planned for and costed separately, such as brief interventions for increasing or higher risk drinkers and specialist treatment for non-opiate users.

Calculating local rates of unmet need

Figure 1- 'local opiate met and unmet need estimates' shows the rate of unmet specialist treatment need for opiate users. Rates of met need are calculated by dividing the number of opiate users in treatment by the estimated number of opiate users in the local authority. Unmet need is then calculated by subtracting the rate of met need from 100%.

Figure 2- 'local alcohol met and unmet need estimates' shows the rate of unmet need for alcohol treatment. Rates of met need are calculated by dividing the number of individuals in treatment for alcohol use (both those individuals that are alcohol only as well as those presenting with non-opiates and alcohol) by the estimated number of alcohol dependent adults potentially in need of specialist treatment. Unmet need is then calculated by subtracting the rate of met need from 100%.

Notes:

- Individuals using opiates and alcohol are not included in the alcohol treatment calculation - they are very unlikely to have been identified in the methodology used to produce the alcohol prevalence estimates. This avoids double counting with rates of unmet need for opiate treatment.
- Numbers in treatment are taken from NDTMS. Local authorities will need to take account of any planned specialist alcohol and drug treatment delivered through hospitals or primary care not recorded by NDTMS, when reviewing their rates of unmet need.

Benchmarking

Table 1, '*opiate prevalence summary*', enables users to benchmark against a comparator local authority, as well as the national average. The local outcome comparator (LOC) is a method which compares each local area to the 32 areas that are most similar to them in terms of the service user complexity. There are different comparisons for opiate and non-opiate populations. In contrast to the nearest neighbour approach, LOC areas are based specifically on the complexity of the substance misuse treatment population, as opposed to the general local authority population. The local outcome comparator average is therefore a useful comparator, providing context when considering any ambition for addressing unmet need.

Table 2, ‘*alcohol prevalence summary*’, enables users to benchmark against a comparator local authority as well as the national average. The Chartered Institute of Public Finance and Accounting (CIPFA) ‘nearest neighbour’ comparator model groups local authorities (LAs) by their traits using descriptive features of the area, such as population, socioeconomic, household and mortality characteristics. The CIPFA nearest neighbour average is therefore a useful comparator providing context when considering any ambition for addressing unmet need. For more information, please see:

<https://fingertips.phe.org.uk/documents/Comparators%20Briefing%20-%20technical.pdf>

Addressing unmet need

It is a condition of the public health grant that local authorities have regard to the need to improve the take up of, and outcomes from, its drug and alcohol misuse treatment services⁶. Prevalence data and estimates of unmet need can inform local strategic needs assessments and any plans to address unmet treatment need. Ambition for addressing unmet need for treatment will be determined locally, in the context of an integrated approach to alcohol and drug harm and any broader local public health strategy.

Guidance on how local areas can work to reduce unmet need by ensuring all those who need alcohol and drug treatment can access it, can be found in PHE’s 2017/8 alcohol and drug commissioning support packs, which accompany this resource.

Note:

Ambition for addressing unmet need based on previous models should not be used in relation to these rates as different methodologies have been used. (See para 1. of this user guide)

Severity of alcohol dependence – unmet need among different cohorts

There is a spectrum of alcohol dependence - mild, moderate and severe. In commissioning services, local authorities should consider local unmet need in relation to all three levels of alcohol dependence.

When commissioning treatment and allocating resources, local authorities should be aware that moderately and severely alcohol dependent adults often experience high levels of complex health, safeguarding, social care and housing need. Effective specialist treatment for this population can help save lives and help to meet a broad range of public health and NHS outcomes for vulnerable adults and their families. Treatment for this cohort should therefore be prioritised appropriately.

At the other end of the spectrum, effective specialist alcohol treatment for mildly dependent adults can reduce health harms and help prevent individuals becoming more severely dependent.

At present we do not have local prevalence data broken down by severity of dependence. The table below shows the estimated national prevalence of alcohol dependent adults potentially in need of specialist treatment segmented by level of severity.

Table 2: Number and proportion of alcohol dependent adults segmented by level of severity

⁶ LA Circular –public health grant and conditions LAC(DH)(2016)

	Number	%
Mild alcohol dependence	313,753	53
Moderate alcohol dependence	173,399	29
Severe alcohol dependence	107,979	18
Total alcohol dependence	595,131	100%

Note: There will be local variation in levels of severity of dependence. The proportion of people who drink at high levels (indicative of severe dependence) is higher⁷ in the most socio-economically disadvantaged groups.

The Cost effectiveness analysis section of this Commissioning Tool shows local treatment figures broken down by consumption levels at the start of treatment which have been used as a rough proxy for severity. (See user guide for the Cost effectiveness section.)

The role of opiate and crack use prevalence estimates

The prevalence of opiate and/or crack cocaine use is an essential part of the evidence base used to plan drug treatment provision. Heroin and crack cocaine are associated with the majority of the health and social costs associated with drug misuse including poor physical and mental health, unemployment, homelessness, family breakdown and criminal activity. Heroin dependence continues to be the most common problem treated in England and heroin use is the main cause of drug related deaths. People with heroin and crack dependence usually develop a tolerance through daily use, which can result in an expensive addiction and a motivation to commit crime.

⁷ Health Survey for England 2015 NHS Digital Table 5 Adult alcohol consumption

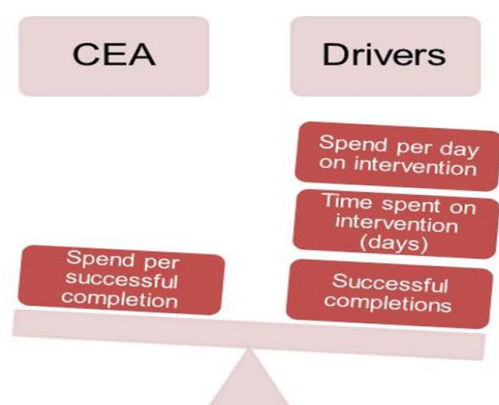
4. Cost effectiveness and scenario planning

The CEA component of the Commissioning Tool allows users to help answer the following types of questions:

- Can we improve the cost-effectiveness of commissioned services?
- Can we use existing resources differently?

Cost-effectiveness is defined here as the spend per successful completion. When interrogating data, remember that three factors affect the cost-effectiveness of local treatment pathways: spend per day, days in treatment and the proportion of people successfully completing treatment.

Figure 5: Drivers of cost-effectiveness



Options

Any unit cost entered in the cost calculator selection will be used to calculate the cost effectiveness of interventions as a default. However, users can explore the impact of drivers on local cost-effectiveness through one of 3 options provided by varying unit cost, spend, proportion of people in treatment and percentage of people in treatment in **yellow cells**.

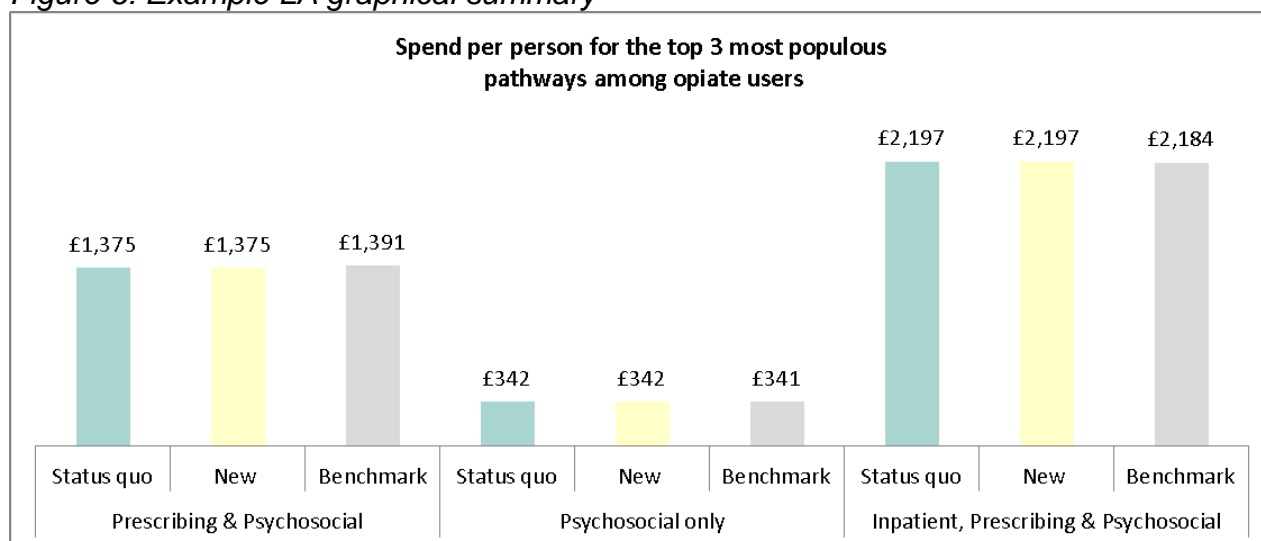
- OPTION 1: The number of clients in treatment remains the same. This scenario models the impact of any change in overall spend on cost-effectiveness. Local authorities can adjust the global spend or spend achieved per unit of treatment and observe the effects in terms of cost savings or spend per successful completion compared to both their status quo and benchmark local authorities.
- OPTION 2: Treatment unit cost remains the same. Local authorities can model the impact of budgetary changes and vary the proportion of clients in treatment and successful completions to mimic periodic changes in treatment provision. Local authorities can compare changes in cost effectiveness to status quo and benchmark performances (unit cost entered in the cost calculator cannot be changed.)
- OPTION 3: Dynamic modelling of the contributing determinants of cost effectiveness. Local authorities can adjust unit cost, spend, proportion of people in treatment and percentage of people in treatment independently or in combinations and observe the impact on cost effectiveness. Again the effect of change can be compared to benchmark and status quo.

NB: By pressing the red reset button users can return to pre-set estimates at any time.

Once an option has been selected users can explore the relationships between spend and numbers in treatment (met need), successful completions, treatment expenditure, cost-effectiveness in the 'CEA- Detailed tables' tab.

A graphical summary of the 3 most common pathways per drug use category and the average for each drinking group is included at the bottom of the 'CEA and scenario planning'. They include graphs of spend per person for the top 3 most populous pathways among opiate and non-opiate users (drinking group for alcohol only) and spend per successful completion. Any changes will be reflected in the yellow bar (New) and comparisons should be with status quo and benchmarked figures (see figure 6). To view the impact on cost-effectiveness from making any changes in 'CEA - scenario planning' tab, click on the 'update graphic summary' button.

Figure 6: Example LA graphical summary



The data is presented in this section of the tool is by opiate users, non-opiate users⁸ and alcohol only clients to reflect the different profiles and complexities of these groups. Data for opiate and non-opiate users is benchmarked using a comparative average based on the expected performance of areas of similar complexity profiles to the selected LA. Adjusting by complexity of population enables local areas to compare against a benchmark which is relatively attuned to the complexity of their population.

Benchmarking for alcohol only clients is a national average based on levels of consumption at the start of treatment. The data on 'alcohol only' clients does not show enough variation in factors affecting outcomes to segment the population for statistical purposes. Alcohol only data is presented according to the typical number of units consumed on a drinking day in the 28 days prior to initial assessment. Breaking down data in this way helps ensure, as much as possible, that any CEA comparisons are like-for-like. This measure of consumption is used as a proxy for the level of severity of alcohol dependence (as measured by SADQ assessment for example) and it is likely that there will be some inaccuracies. For a number of reasons, clients who are moderately or severely alcohol dependent may present with consumption patterns in the 28 days prior to treatment that would fit the 'lower level drinking' band and so appear to be in a lower need category than is actually the case. From 2017,

⁸ Opiate and non-opiate drug using clients may have alcohol cited as a problematic substance in their NDTMS record.

NDTMS will record SADQ scores, which will greatly increase understanding of severity of need among people in alcohol treatment.

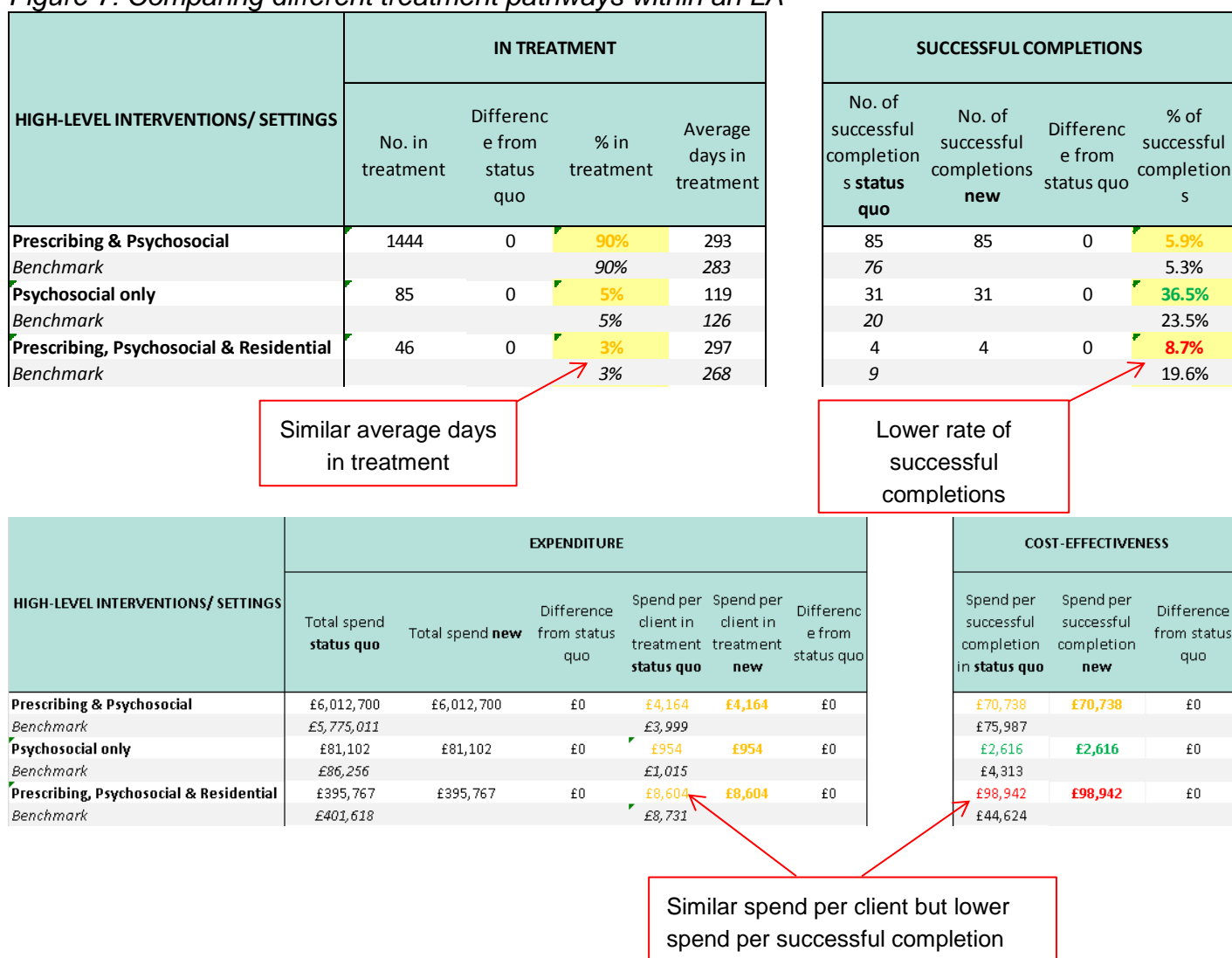
The graphs reflect any changes made in the CEA sections, users can refer to the relevant data tables for opiate, non-opiate users and alcohol only clients form more detail.

Comparing treatment pathways within an LA

The detailed tables can be used to explore cost-effectiveness in more detail. Below is an example of data from a hypothetical LA. It shows opiate clients in treatment during 2016-17. Most opiate clients in this LA received 'Prescribing and psychosocial' (90%). Given the three drivers of cost-effectiveness (figure 5); commissioners should pay particular attention to the average days, estimated spend per client (as well as unit costs in the Costs tab) and the proportion of successful completions in the CEA tables.

Figure 7 below shows that compared to what would be expected (based on the LA's characteristics), the 'Prescribing, psychosocial and residential' pathway may not be as cost-effective in this LA as what is seen in the comparative benchmark (£98,942 vs. £44,624).

Figure 7: Comparing different treatment pathways within an LA



The Example LA had similar average days in treatment and spend per client to the benchmark, which raises possible areas of consideration for why the successful completion rate is lower than the benchmark. Commissioners should explore with providers any factors that may account for the difference, such as staff competence, the combination of interventions in the package of care, or the relative complexity/severity of clients' needs. The NICE Clinical Guideline 115 provides guidance on matching interventions to severity of alcohol dependence and complexity of need. The 2017 drug misuse and dependence: UK guidelines on clinical management outline the need to increase the intensity of interventions to meet more complex need.

Interpreting the sub-interventions data

When considering the spend and outcomes on an individual pathway, we advise that the sub-interventions provided on that pathway are also considered. Where a significantly higher or lower proportion of sub-interventions were delivered compared to the benchmark, then this may be impacting on expenditure, causing the pathway to seem more or less expensive than those in areas with similar complexities.

Alongside this, the delivery (or not) of sub-interventions may be a contributory factor in the achievement of successful completion outcomes. The range of sub-interventions provided on a pathway can be reviewed to see how the breadth and proportions compare to what is being delivered in similar areas and subsequent outcomes.

Figure 8: Sub-interventions

HIGH-LEVEL INTERVENTIONS/ SETTINGS	SUB-INTERVENTIONS						
	Pharmalogical	Maintenance	Assessment & stabilisation	Withdrawal (drug specific)	Relapse prevention (drug specific)	Withdrawal (alcohol specific)	Relapse prevention (alcohol specific)
Psychosocial only	8	8%	8%	8%	8%	33%	33%
Benchmark	6	17%	17%	17%	17%	17%	17%
Pharmacological & Psychosocial	29	9%	16%	7%	9%	27%	32%
Benchmark	31	29%	23%	13%	16%	10%	10%

Similar number of pharmacological cases

HIGH-LEVEL INTERVENTIONS/ SETTINGS	SUB-INTERVENTIONS								
	Psychosocial	Motivational interventions	Cognitive & behavioural based relapse prevention interventions	Contingency management	Family & social network interventions	Psychological interventions for co-existing mental health problems	Counselling	12-step work	Psychodynamic therapy
Psychosocial only	144	73%	17%	1%	5%	1%	2%	1%	0%
Benchmark	179	53%	22%	8%	4%	4%	4%	2%	2%
Pharmacological & Psychosocial	38	60%	19%	0%	18%	2%	2%	0%	0%
Benchmark	47	45%	19%	9%	9%	9%	4%	4%	2%

Greater number of psychosocial cases

Greater per cent of psychosocial sub-intervention cases

Comparing different treatment pathways against a benchmark

Looking at the spend and outcomes for different pathways for opiate clients, an initial comparison of 'prescribing and psychosocial' and 'psychosocial only' might suggest the latter to be less cost-effective (£70,738 vs £2,616).

However, it is important to remember that the interventions delivered are dependent on the clinical needs of the client. Some people using opiates may need additional pharmacological interventions or longer interventions resulting in a higher cost for the pathway. Treatment pathways should not be compared against each other to assess cost-effectiveness since different cohorts of clients require different interventions for their treatment to be effective. When considering the cost-effectiveness of different treatment pathways, comparisons should be made against the benchmark. It is sensible to consider what proportion of individuals are using this pathway and how this compares to the national average, as well as the spend and outcomes achieved.

In the example above, while 'prescribing and psychosocial' seems a more costly pathway, it compares favourably to the benchmarked average and the pathway could be considered as better than expected given the complexity of the clients and so may not warrant any further investigation. If, however, a pathway compares unfavourably with the benchmarked group, or a higher proportion of people accessed more expensive pathways than the national average, then further exploration may be appropriate to help ensure that future interventions provided effective, cost-effective and appropriate for the client. Similarly in the Example LA 'alcohol only' group comparisons should be made with the national averages.

As the data is broken down by treatment pathways, it provides you with information about the proportion of clients in your local area who are receiving interventions that align with clinical guidance. NICE Clinical Guideline 115 recommends different treatment pathways based on the severity of alcohol dependence and complexity of need. You may wish to consider whether treatment pathways delivered align with recommendations. At a national level, it would appear that there is less prescribing for relapse prevention and for detoxification for alcohol dependence than would be indicated by the guidance. This may be partly explained by the fact that some prescribing takes place in settings that may not submit data to NDTMS (acute hospital settings, GPs.) However, it might be useful to explore this further if your local data shows low levels of prescribing.

5. Improving cost-effectiveness

The Commissioning Tool does not provide definitive answers; the CEA results do not offer an argument to stop investing in interventions with relatively higher spend, or encourage further investment in those with comparatively lower costs. Commissioners should therefore use the tool to explore, understand and appropriately improve cost-effectiveness in the future, as well using it as improving data quality if necessary (e.g. incorrect recording of expenditure or NDTMS interventions data).

Improving data recording

Inaccurate recording of local activity affects unit costs and expenditure data. If money is spent on an intervention, but fewer clients are recorded as receiving it than actually did so, then local spend per intervention will appear much higher than it is in reality. It is also important that providers correctly report on NDTMS when clients stop accessing their services, because time spent in treatment is an important factor in the cost-effectiveness calculations.

Reducing the unit costs of treatment

There are several means by which commissioners may reduce unit costs, if necessary and appropriate, which will depend on local circumstances and involve collaboration with providers. It is important to collectively consider the impact of any changes. For example, it would be inappropriate if unit costs were so significantly reduced that there was a negative impact on treatment effectiveness, including the number of successful completions, or other outcomes and process measures, such as waiting times, alcohol-related hospital admissions, drug related deaths or blood borne virus vaccination, treatment or transmission rates.

Bearing that in mind, a few considerations are listed below. Commissioners could:

- explore with providers the possible drivers of high unit costs
- consider restructuring and re-allocation of resources within the service or within the treatment system
- explore where provision of less costly interventions or settings could be equally effective
- consider how and where better use of mainstream provision (e.g. housing, employment), could support service delivery and the achievement of improved outcomes
- consider provider contract amendment or changes to contract monitoring to increase the focus on outcomes

Ensuring clients are in treatment for an appropriate length of time

Being in structured treatment has immediate benefits. Some people may need to be in treatment for a long time, while others require a shorter treatment intervention. Premature cessation of treatment may result in relapse, risks to health and well-being and for some service users, increase the risk of drug overdose and death. If service users return to treatment following relapse, cost effectiveness is reduced.

However, keeping clients in treatment for longer than may be necessary is also potentially a waste of resources and may impede recovery. Clinical guidelines should be adhered to at all times.

Improving the recovery-orientation of treatment is a wide-ranging exercise but can involve the following key elements:

- *Understanding the local treatment population and targeting resources to those who need them.*
- *Ensuring the workforce is competent and appropriately resourced*
- *Protecting (and continuing to offer recovery opportunities to) those with longer term treatment needs*
- *Ensuring treatment and recovery journeys are dynamic for all: planned then continually reviewed and optimised*
- *Facilitating service users to engage with mutual aid can add value by increasing and sustaining the gains achieved by formal treatment⁹. By doing so, the cost-effectiveness is likely to be high.. Developing other asset-based resources to support drug and alcohol recovery (e.g. peer mentoring) will potentially have a similar positive effect.*
- *Involving service users, families and broader recovery communities so that recovery is creatively and broadly supported, as well as visible*
- *Integrating pathways across health and social care, criminal justice, employment, housing, recovery support, etc.*
- *Using data to support improvement, through both clinical audit and performance management, and involving clinicians, managers, commissioners and service users.*

Considering return on investment

The tool looks at cost-effectiveness as defined by spend per successful completion. At present it does not include wider benefits associated with treatment, such as those to the NHS.¹⁰ When such savings are taken into account, interventions that are low in cost-effectiveness in terms of successful treatment completions may nevertheless be worth investing in. For example, studies have shown that treatment benefits are immediate and that substantial social and economic benefits can be made while users are still in treatment. We therefore advise that LAs use the commissioning tool alongside *The 2016-17 Social Return on Investment (SROI) of Adult Alcohol and Drug Interventions*.

Useful resources

The 2016-17 Social Return on Investment (SROI) of Adult Alcohol and Drug Interventions provides local estimates of the benefits resulting from investment in structured treatment for drugs and alcohol dependency. The tool reflects that benefits occur when people are in treatment, and that they continue for those who recover from their dependency. Social and economic benefits are broken down into crime, health, social care and Quality Adjusted Life Year improvements for people who received treatment in 2016-17. Areas will also be able to calculate additional estimates of benefits based on local intelligence and data gathering.

<https://www.ndtms.net/ValueForMoney.aspx>

Medications in Recovery: Re-orientating drug dependence treatment sets out practical steps to meet the 2010 Drug Strategy commitment that all those on substitute prescriptions should engage in recovery activities.

<http://www.nta.nhs.uk/uploads/medications-in-recovery-main-report3.pdf>

⁹ A briefing on the evidence-based drug and alcohol treatment guidance recommendations on mutual aid www.nta.nhs.uk/uploads/mutualaid-briefing.pdf

¹⁰ PHE has published guidance on calculating social return on investment.

The Recovery Diagnostic Toolkit *can help to understand how changes in the profile of local treatment populations compare within cluster groups or nationally, as well as how well locally each of the different client groups are doing in terms of achieving outcomes during treatment and also in completing successfully free of dependency* www.ndtms.net

JSNA support pack for commissioners *outlines key principles that local areas might consider when developing plans for an integrated recovery system. There are five principles, followed by a series of prompts to help put them into practice* <http://www.nta.nhs.uk/healthcare-JSNA.aspx>

Appendix A. Estimating unit costs

A unit cost captures the total cost of providing one unit of a service, such as residential rehabilitation. Unit costs should:

- include all service provision costs – direct costs, indirect costs (e.g. heating and lighting, time and travel costs) and overheads (e.g. HR and finance). These costs should include goods and services which are free: payment in kind, free use of community centres/ venues and volunteer staff time
- include 'intention to treat' costs – such as triage assessment costs for people who choose not to engage with a treatment provider, drop out of treatment, or are referred elsewhere
- add up to the total cost of service provision

There are two approaches to estimating the unit costs of alcohol and drug interventions: top-down and bottom-up.

Top-down unit costs estimates

The top-down approach to estimating unit costs is relatively straightforward: divide total expenditure by total units of activity. For example, the top-down calculation for residential rehabilitation would be:

$$\text{Total spend on residential services} / (\text{number of people} * \text{number of days in residential services})$$

While this approach is simple, it cannot be used to identify what actually drives costs, other than number of people and time spent in treatment. This could lead to potential cost underestimation or overestimation. It also cannot reliably forecast cost variations resulting from changes in the way that people engage with services or improved efficiency.

Bottom-up unit costs estimates

The bottom-up approach requires greater detail than the top-down method: all resources used to provide a service, such as staff, prescribed drugs and premises, need to be identified and a value assigned to each. To calculate the unit cost, the values are then summed and multiplied by the unit of activity. Below is a bottom-up approach informed by the NHS costing manual and Monitor's costing guidance'.

1. Identify the key activities involved in delivering an intervention: e.g. counselling, group sessions, substitute prescribing, referrals to other agencies, staff and volunteer training, administration, staff travel and subsistence. The duration of the activities should be noted
2. Identify the relevant costs and assign costs to activities: the minimum standard categorisation for costs are direct (e.g. staff), indirect (e.g. heating) and overhead costs (e.g. finance and HR)
3. Calculate the costs per person per day: sum up the costs for each activity and divide by the number of people accessing each activity multiplied by the duration of the activity (total days = number of people * number of days) $(\text{£Activity1} + \text{£Activity 2} + \text{£Activity n...}) / (\text{Total days1} + \text{Total days 2} + \text{Total days n...})$

Breaking down costs in this way establishes transparent and more robust estimates and allows commissioners to explore drivers of variation, such as whether some service users account for a disproportionate share of the costs. This method is more reliable for forecasting how costs can change as a result of a reduction in service usage or demand.

Tips for breaking down expenditure

1. Use the alcohol and drug prevention, treatment and recovery cost calculator, available in the Commissioning Tool
2. Look at contract specifications: this should help determine how much is spent on different interventions
3. Speak to providers: they should have a good understanding of their spend and activity against each intervention
4. Refer to established guidelines such as the NHS costing manual
5. Sense check your estimates with published unit costs such as the PSSRU 'Unit costs of health and social care'
6. Speak to your local alcohol and drugs centre team: they are there to advise and support if you need them