#caringplymouth

CARING PLYMOUTH – TO FOLLOW

Thursday 15 October 2015
2.00 pm
Council House, Armada Way, Plymouth, PL1 2AA

Members:
Councillor Mrs Bowyer, Chair
Councillor Mrs Aspinall, Vice Chair
Councillors Mrs Bridgeman, Sam Davey, Mrs Foster, Fox, James, Mrs Nicholson, Parker-Delaz-Ajete, Dr. Salter and Stevens.

Members are invited to attend the above meeting to consider the items of business overleaf.

For further information on attending Council meetings and how to engage in the democratic process please follow this link - http://www.plymouth.gov.uk/accesstomeetings

I refer to the agenda for the above meeting and attach for your attention the reports referred to in item 5 including Public Health Consultation.

Tracey Lee
Chief Executive

CARING PLYMOUTH

The Panel to receive the Public Health's Corporate Performance Report and to feed into the Public Health Consultation.

We will prioritise prevention.

Key Action Overview

Outcome	Portfolio Leads	Outcome Lead	Officer Leads	Key Action Description	RAG	2014/15 Key	Milestones due for completion during current quarter	Status	Proposed resolution (overdue Milestones)
We will prioritise prevention	Ian Tuffin	Dave Simpkins / Alison Botham	Alison Botham	Deliver the Early Intervention and Prevention Plan	Green	K19	None **Early Intervention Plan has now been subsumed within the Commissioning Strategy, Children's Transformation and Inspection Improvement Plan as part of the Early Help Offer**		
	Sue McDonald		Judith Harwood	Deliver both the Early Years Strategy and SEN/D Strategy	Green	K45	1. Develop processes and provide information for practitioners to ensure readiness for the effective implementation of Early Years Pupil Premium from April 15 2. Promote and monitor take up of Early Years Training and Support package to ensure all settings continue to maintain and improve quality of provision 3. Develop specifications for how Health visitors will contribute to the Integrated Early Childhood Service including shared outcomes with Children's centres	1. Complete 2. Complete 3. Complete	
	Sue McDonald		Kelechi Nnoaham	Lead on the city's strategy for health and wellbeing	Green	K21	1. Evaluation of Thrive Plymouth launch 2. ODPH behaviour workshops identifying key change enablers for reducing health inequalities 3. Engage PHT in Thrive Plymouth approaches in their hospital setting 4. Draft Annual DPH report for June 2015 CMT	1. Complete 2. Complete 3. Complete 4. Complete	
	Sue McDonald		Kelechi Nnoaham	Develop a clear research and evidence base to understand health inequalities across the city	Green	K46	1. Full Wellbeing Survey Results to CMT 3/2/15 2. Final version of Plymouth Report to be published post CMT 3/2/15 3. PNA consultation closed 16/2/15. Final PNA to go to Feb HWB 4. National Child Measurement Programme Report to be published	1. Complete 2. Complete 3. Complete 4. Complete	
	Sue McDonald		Kelechi Nnoaham	Deliver strategies that reduce individual risk factors and strengthen the role and impact of early intervention and prevention	Green	K47	1. Introducing a network of trained Workplace Wellbeing Champions in PCC to support achievement of workplace wellbeing charter and health improvement activity for our workforce e.g. Launch of Everest Challenge 19 Jan 2. Development meeting re Health Checks with GPs, Pharmacies and Sentinel in Feb 15 3. Work with Secondary Leads for School health & lifestyle survey results; analyse and develop an approach to the findings (to include mental health, resilience and diet) 4. Gain agreement with Primary leads to a primary school health & lifestyle survey 5. Complete EIA on Healthy Weight Strategic Action Plan (date tbc)	1. Complete 2. Complete 3 . Complete 4. Complete 5. Complete	
	Chris Penberthy		Matt Garrett	Deliver the Housing Plan Objectives	Green	K22	1. Reach target of preventing 1000 households from becoming homeless 2. Tackle welfare reform by enabling at least 400 people in housing need to benefit from budgeting skills training	1. Complete 2. Complete	

Performance Indicators linked to the "Prioritise prevention outcome."

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Outcome	Measure	Ref	Performance										Graph	Historic Performance against target, benchmark and influences	Current Performance and trajectory	Performance forecast (link to Action Plan)	Performance Data
We will prioritise prevention.	Increase access to early help and support. (reported one quarter in arrears)	P14		2012/13 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	**Help and Support**	Social -economic factors influence the demand on early help and support services and is an influencing factor on performance. Ensuring that services have adequate resources to deal with demand will have significant impact on performance. Target was exceeded in 2013/14 and in 2014/15 the number of clients being seen	Current risks to the attainment of this measure are; This measure is on target across the board with Advice Plymouth achieving all contractual targets in terms of enquiries, referrals and caseloads. As targets are being exceeded this target will be achieved relatively easily.	Strong performance regarding enquiries and referrals to and from Advice Plymouth means that the target is achieved.	**Performance Data: Indexed measure** 1.Number of Advice and Information enquiries Qtr. 3 Performance 27817 Qtr. 3 Target 15000 2.Number of Advice and Referral enquiries Qtr 3 Performance 10132 Qtr 3 Target 4125 3. Number of caseload enquiries Qtr 3 Performance 8740 Qtr 3 Target 4500
			Actual	925	775	800	825	875	1000	1000	1000	Not yet available					
			Target	800	800	800	800	800	800	800	800	800		Influences? Social Economic factors, Service resource	Direction of current trajectory? Advice Plymouth Improving re enquiries and referrals.	Green	
			Forecast								1000						
	Increase the number of adults and families able to stay in their own home and communities.	P15		2012/13 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	**Stay in own Communities**	The housing related measures (CAT 1 hazard removal and major adaptations to homes) have historically performed well against target. Since the introduction of the Government's personalisation agenda the proportion of clients receiving services through a self-directed support process has continued to increase. The proportion of clients who receive their directed support via a direct payment in Plymouth is amongst the highest in the country.	This indexed measure is achieving target at quarter 3 with performance particularly strong in the removal of CAT 1 hazards and the proportion of people in receipt of self-directed support.	All targets achieved.	**Performance Data: Indexed measure** 1. Total number of Category 1 hazards removed Qtr 2 Performance 310 Qtr 2 Target 300 2. Major Adaptations to homes Qtr 2 Performance 153 Qtr 2 Target 153 3. Self Directed Support Qtr 4 Performance 86% Qtr 4 Target 80%
			Actual	n/a	833	867	933	900	800	833	833	833					
			Target	n/a	800	800	800	800	800	800	800	800		Influences? Social Economic factors, Service resource	Direction of current trajectory? Improving	Forecast? Green	
			Forecast								800	800					

Public health grant: proposed target allocation formula for 2016/17

An engagement on behalf of the Advisory Committee on Resource Allocation (ACRA)

8 October 2015

Title:	Public health grant: proposed target allocation formula. An engagement on behalf of the Advisory Committee on Resource Allocation (ACRA)
Author:	Public Health Policy Strategy Unit (PHPSU)　　　cc:10100
Document Purpose:	This document sets out the proposed target formula for public health grants to local authorities in England from 2016-17 on behalf of ACRA.
Publication date:	8 October 2015
Target audience:	Chief Executives – Upper tier Local Authorities Directors of Finance – Upper tier Local Authorities Directors of Public Health – Upper tier Local Authorities Directors of Children's Services – Upper tier Local Authorities Members of Health and Wellbeing Boards PHE Centre Directors
Contact details:	Email to:　　　　PHformula2016/17@dh.gsi.gov.uk Post:　　　Engagement on Local Authority Public Target Allocations 2016/17 Department of Health Public Health Policy and Strategy Unit Room 165 Richmond House 79 Whitehall London SW1A 2NS

Public health grant: proposed target allocation formula for 2016/17

An engagement on behalf of the Advisory Committee on Resource Allocation (ACRA)

Prepared by :   **Public Health Policy and Strategy Unit, Department of Health and Analytical Services Directorate, NHS England**

Contents

1. Introduction

1.1   In April 2013 the public health system in England underwent major reform:

- Local authorities (LAs) took the lead for improving health and coordinating local efforts to protect the public's health and wellbeing, ensuring health services effectively promote population health and reduce health inequalities. Local political leadership has been central to making this work.

- A new executive agency, Public Health England (PHE) was set up to:

    - Deliver services, health protection, public health information and intelligence, and services for the public through social marketing and behavioural insight activities;

    - Lead for public health (by encouraging transparency and accountability, building the evidence base, building relationships, promoting public health); and,

    - Support the development of the specialist and wider public health workforce by appointing directors of public health, supporting excellence in public health practice and bringing together the wider range of public health professionals.

1.2   LAs and their partners have embraced the prevention agenda. They are well placed to assess local needs, prioritise and deploy resources accordingly and have demonstrated that more can be done for less in providing best value for the taxpayer.

1.3   Building on this, from October 2015 the responsibility for commissioning of 0-5 children's public health services, principally health visiting services, will also transfer to LAs. The budget for October 2015 to March 2016 for 0-5 children's public health services has primarily been set on a "lift and shift" basis.

1.4   It is important that LAs are supported in their work by a fair distribution of resources that reflects their relative needs. The key steps in setting allocations are:

- Setting the total resources available,

- Setting the preferred relative distribution of resources,

- Deciding how quickly to move organisations from their baseline position towards the level of resource implied by the preferred distribution (pace of change policy).

1.5   Pace-of-change is a decision reserved for ministers, as is the total quantum available for LAs. ACRA's role is focused on the target formula, and it is this

formula which is the subject of this engagement. The total resources available will not be known until the outcome of this year's spending review is published, and therefore actual allocations and pace of change cannot be calculated until that time.

1.6   The target formula for public health grants for 2013-14 and 2014-15 was recommended by ACRA.[1]

1.7   ACRA has reviewed the formula for public health and has made a number of recommended changes for 2016-17 onwards. This engagement sets out ACRA's interim recommendations. ACRA will make its final recommendations to ministers this autumn. As was the case for the formula for 2013-14 and 2014-15, the formula is based on the principle of equal opportunity of access for equal need, and contributing to the reduction in health inequalities.

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[1] https://www.gov.uk/government/publications/ring-fenced-public-health-grants-to-local-authorities-2013-14-and-2014-15

2 Summary of proposed changes to the formula ACRA formula

2.1 Since ACRA's recommendations were published in January 2013 there have been significant changes. As well as the planned transfer of children's 0-5 services, other relevant datasets have been identified for utilisation of sexual health and substance misuse services. Our policy of publishing full details of the target model has also meant we have had ongoing feedback, which ACRA wished to consider.

2.2 The Secretary of State therefore commissioned ACRA to update the existing public health formula to take account of these changes and recommend a revised formula that could be used to target public health resources. ACRA's remit is to develop a formula for a single target allocation covering both existing services and the newly transferred children's 0-5 services. Although the formula contains separate components to estimate the need for different services, each LA currently receives a single allocation, which it can then decide how best to prioritise, having regard for the needs of its population, its statutory responsibilities and the grant conditions.

2.3 ACRA would welcome your feedback on the following proposed changes:

- *Routine data updates.* Since the publication of the 2013-14 and 2014-15 allocations a number of the datasets have been updated, in particular the standardised mortality ratios (SMR) have been updated to use population estimates based on the 2011 as opposed to the 2001 census. Updated population projections have also been used for LAs from 2016-17 onwards.

- *Using a modelled rather than the actual standardised mortality ratio* has a number of benefits, but ACRA's view is that the modelling is not yet robust enough for implementation so recommends the actual SMR<75 continues to be used.

- *Increasing the number of bins used for the standardised mortality ratio based component.* During the allocation period concerns were raised by independent analysts around the way small areas of similar mortality were grouped, in particular that this may mean the target was insufficiently sensitive to the most extreme deprivation. ACRA is proposing that finer grouping is used to offset this.

- *A new formula component for substance misuse services.* The existing model for drugs misuse uses a combination of recent provision and recent success rates, in line with the approach used in the past for Pooled Treatment Budgets (PTBs). This formulation can be volatile and could be subject to perverse incentives, such as the incentive to treat more people rather than to invest in prevention. ACRA is therefore proposing a new formula, for both drugs and alcohol misuse, based on a utilisation dataset that can be linked to the user's place of residence and controlled for effects that may drive up utilisation, but are not connected to need.

- *A new formula component for sexual health treatment services.* The existing target formula uses the standardised mortality ratio for those aged under 75 years (SMR<75) to indicate areas where deprivation and other factors may be creating a greater health challenge. Some stakeholders were concerned about the suitability of this approach for sexual health services, where the link between mortality and drivers of need for services may be particularly distant. As for substance misuse services, ACRA is now proposing a new formula based on a utilisation dataset that can be linked to a user's place of residence and controlled for effects that may increase utilisation, but are not linked to need.

- *A new component for children's 0-5 services* takes account of the transfer of resources from NHS England to LAs for responsibility for commissioning public health services for children aged under five years.

2.4 ACRA is proposing an adjustment for sparsity in the new component for children's 0-5 services to take account of travel time for home visits by health visitors. ACRA had hoped the Community Information Dataset would have been available in time for a review of potentially higher costs of other services in sparsely populated areas, however this has proved not to be the case. In the absence of quantified evidence ACRA is therefore not proposing adjustments for 2016-17 for sparsity other than for health visitors, but will keep this issue under review as part of its future work programme.

3   The existing formula

3.1   ACRA developed a formula for public health grants for the first time in 2012 which was used to set target allocations for 2013-14 and 2014-15 for public health grants to LAs. As with other formulae, it is on a weighted capitation basis.[2] ACRA recognised at the time that this initial formula would need to be reviewed and further developed as improved data became available.

3.2   A summary of the current formula is as follows:

- The principal indicator of need is the standardised mortality ratio for those aged under 75 years (SMR<75);

- The SMR<75 is applied at middle layer super output areas (MSOA)[3] level to take account of inequality within LAs as well as between LAs;

- The gradient of the formula across small areas is exponentially weighted at a ratio of 5:1 to target funding per head towards areas with the poorest health outcomes;

- The weighted population for LAs is built up from the weighted populations for the MSOAs in their area;

- An age-gender adjustment is applied for those services with the highest proportion of public health spend which are also directed at specific age-gender groups, to weight for relative needs between different age-gender groups;

- A component to support drug treatment services funded through the pooled treatment budget (PTB) up to 2012-13 which broadly follows the approach used to allocate that budget. This is based on a need component, an activity component and an outcome component. The need component in the PTB formula was replaced with the SMR<75;

- An unavoidable cost adjustment, the Market Forces Factor (MFF);

- The weights per head from the above are applied to Office for National Statistics (ONS) resident population projections for LAs to give weighted populations for each LA. Each LA's share of the total weighted population gives its target share of the national budget (once known).

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[2] Full details of the formula are published at: https://www.gov.uk/government/publications/ring-fenced-public-health-grants-to-local-authorities-2013-14-and-2014-15

[3] MSOAs are small geographical areas defined by the Office for National Statistics for statistical analysis and reporting purposes, and on average have a population of around 8,000 people.

3.3   The formula is principally based on a population health measure, the SMR<75. Many of the mortality and morbidity measures are highly correlated, and are in turn highly correlated with deprivation. SMR<75 has the important practical advantage that it is updated regularly, including at middle level super output area (MSOA). The SMR<75 is used as an indicator of the whole population's health status and should not be interpreted as meaning that the allocation should not reflect the needs of those aged over 75 years or that morbidity is unimportant.

3.4   Each MSOA was assigned to one of ten groups based on their SMR<75. The MSOAs in the group with the worst SMR<75s were given a weight per head of 5 times that of the MSOAs in the group with the lowest SMR<75s. The weights per head increased exponentially across the intervening eight groups, meaning the difference in weight between each group increases as the SMR<75 rises, and rises most rapidly when SMR<75 is at its worst.

3.5   Age-gender adjustments were applied for obesity and physical activity, alcohol misuse, tobacco misuse, sexual health services, children's 5-19 services, and drugs misuse.

3.6   The MFF is that used in NHS allocations to Clinical Commissioning Groups (CCG), mapped to LAs. This was preferred to the Area Cost Adjustment in the Local Government formula as it should be updated more frequently.

4 Data updates

4.1 The 2014-15 formula has been updated with the latest data for populations, SMR<75, MFF, age-gender weights and drug treatment activity. Table 1 shows data used in the formula for 2014-15, and the 2016-17 update (prior to inclusion of the new components for substance misuse services, sexual health treatment services and 0-5 children's services).

Table 1: Data used in the current formula for 2014-15 and 2016-17

Area	2016-17 formula	2014-15 formula	Source
Population data	LA level: 2016 sub-national population projections, mid-2012 based	LA level: 2014 sub-national population projections, interim mid-2011 based	ONS
	MSOA level: mid-2012 population estimates (2011 Census based), used for aggregating the SMR<75 weights to LA level	MSOA level: mid-2010 population estimates (2001 Census based), used for aggregating the SMR<75 weights to LA level	
SMR<75 by MSOA	SMR<75 (all causes) for deaths registered in the period 2008-2012	SMR<75 (all causes) for deaths registered in the period 2006-2010	Public Health England
MFF	Derived from the MFF used in CCG allocations formula (based on 2011-12 HES (Hospital Episode Statistics) and 2013-14 tariff)	Derived from the MFF used in the previous PCT weighted capitation formula (based on 2008-09 HES and 2009-10 tariff)	HES and Tariff
Age- gender weights	Nutrition, obesity & physical activity: % eat fewer than 5 portions of fruit and vegetables per day (HSE 2013)	Nutrition, obesity & physical activity: % eat fewer than 5 portions of fruit and vegetables per day (HSE 2010)	Health Survey for England (HSE)
	Alcohol misuse: % who drank more than recommended daily units on heaviest drinking day in past week (HSE 2013)	Alcohol misuse: % who drank more than recommended daily units on heaviest drinking day in past week (HSE 2010)	
	Smoking: % who are current smokers (HSE 2013)	Smoking: % who are current smokers (HSE 2010)	
	Sexual health: Diagnosis rates of sexually transmitted infections, 2013	Sexual health: Diagnosis rates of sexually transmitted infections, 2010	Public Health England
	Drugs misuse: Drug treatment activity, 2013-14	Drugs misuse: Drug treatment activity, 2010-11	Public Health England

4.2 Weighted populations for 2016-17 have been produced at upper-tier LA level that allows comparison with those for 2014-15. The percentage change in the overall weighted populations from 2014-15 to 2016-17 is shown in Figure 1.

Figure 1: Percentage change in overall weighted populations (WP) due to data updates, 2014-15 to 2016-17
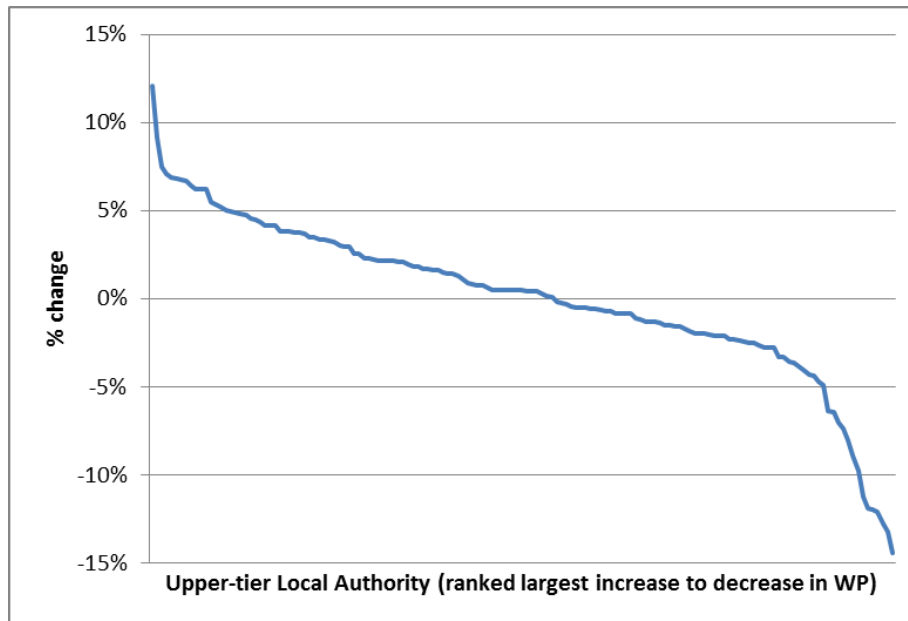
4.3   A full breakdown of the share of the weighted population per 100,000 population and the impact of each change is at Annex A. More than 80% of LAs see their weighted population change by less than 5% and just nine see it change by more than 10%.

4.4   SMR<75 estimates for 2013-14 and 2014-15 used populations rolled forward from the 2001 census for their denominator. For this data update, the SMR<75 now uses populations derived from the 2011 census. Target allocations are particularly sensitive to the rebasing of population estimates for new censuses. In this case, areas where the population estimates rolled forward from the 2001 census significantly underestimated populations, typically, inner city (and therefore deprived) areas, have seen their SMR<75 estimate fall as the denominator (expected number of deaths based on the population size and age structure) rises. This effect is enhanced for the most deprived areas because of the exponential weighting used to weight the SMR<75 bins.

4.5   Figure 2 shows how the data updates tend to lead to a fall in weighted population for more deprived areas, although the effect is weak and mainly driven by a small number of LAs where the effect is particularly marked. Deprivation increases on the horizontal axis from left to right.

Figure 2: Index of Multiple Deprivation (IMD 2010) vs percentage change in overall weighted population due to data updates 2014-15 to 2016-17 for upper-tier LAs
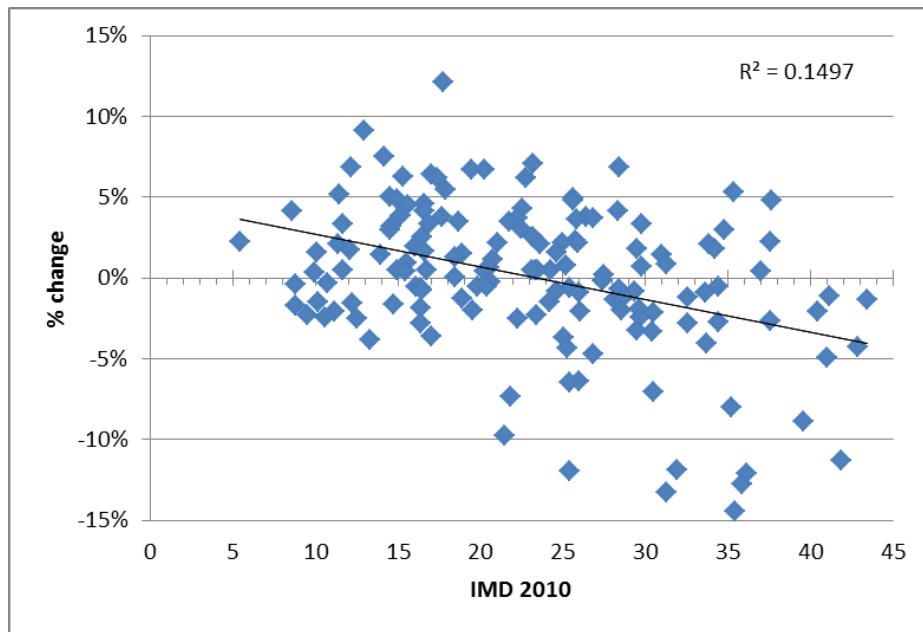
5   Modelled SMR<75

5.1   As noted above, the standardised mortality ratio for those aged under 75 years (SMR<75) is currently used as the main driver of need for public health services. It is adopted as a general indicator of population health, rather than as indicating that public health should address only mortality or that those aged over 75 years are not a matter of concern for public health services.

5.2   The indicator has a number of helpful characteristics. It is:

- Correlated with deprivation;
- Available for MSOAs;
- Regularly updated; and
- Not overly sensitive to the location of, for instance, care homes (unlike the all ages mortality).

5.3   However it also has a significant disadvantage as it, like other outcome measures, combines both underlying need and the way that need is addressed. It is easy to construct a scenario where a LA faces significant challenges and is then successful in meeting those challenges. As a result the mortality ratio, and subsequently its resource allocation, falls. This may be despite the underlying drivers of poor health in the authority being unchanged and needing continued attention.

5.4   Consequently, ACRA's recommendation is that where SMR<75 is used we should move towards a modelled SMR<75, targeting resources on the basis of what we expect the SMR<75 to be. Work was commissioned from the University of Manchester to look at building such a model.[4] This showed that a well behaved model could be constructed for most areas. However, for those areas where there is a significant deviation between the modelled and actual SMR<75 it is difficult to construct a hypothesis on why there is such a deviation.

5.5   ACRA's view is that this work represents an important first step, but more work is needed to understand the model, in particular to ensure that the deviations represent genuine deviations from what would be expected, rather than a model or data artefact. A move to a modelled SMR<75 would also mean that the model could not be updated regularly as some of the explanatory variables are linked to the census.

5.6   They therefore recommend that the target formula continues to use the actual rather than the modelled SMR<75, but that work to develop the approach continues.

Q1: Do you agree that a modelled SMR<75 should be developed for use in the longer term?

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[4] 'Resource Allocation for Local Public Health (Final report)', University of Manchester, July 2015

6 SMR<75 groups

6.1   As noted above, the public health formula recommended by ACRA in 2012 is largely based on the SMR for those aged under 75. The SMR<75 was applied at MSOA level to take account of inequality within, as well as between LAs.

6.2   Each MSOA was assigned to one of ten groups based on the value of their SMR<75. MSOAs in the same group were given the same weight per head. MSOAs in the group with the highest SMR<75s were given a weight per head 5 times higher than the MSOAs in the group with the lowest SMR<75s. The weight per head for the intermediate groups increased exponentially.

6.3   Each group covered an equal range of SMR<75, provided they included no fewer than 5% of the total number of MSOAs. This was intended to reduce the impact of random fluctuations in the SMR<75 over time and remove the effect of outliers which may be due to data issues. This condition meant the two groups with the lowest and highest MSOAs each covered a wide range of SMR<75s.

6.4   Following a submission letter from John Hacking of Manchester City Council[5], ACRA agreed that concerns about variability and data errors in the very high and very low SMR<75s were less of an issue than previously thought, and the requirement to have at least 5% of MSOAs in each band was unnecessarily cautious.

6.5   John Hacking proposed that there should instead be 20 groups of equal width, but this is turn means that some groups have only a single MSOA and ACRA is concerned that volatility might once again be an issue, especially as some LAs contain only a handful of MSOAs.

6.6   ACRA is therefore recommending 16 groups, with each group having no fewer than 30 MSOAs to guard against volatility, though 30 is an arbitrary choice. The weights for these groups are set in a way that the 5:1 ratio between the median for the current maximum and minimum SMR<75 groups (i.e. 36.8 to 61.9 and 165.6 to 277.8) is intact, but allows the weight per head to follow the exponential relationship beyond that. The current and proposed groups are shown in Table 2 below.

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[5] 'A proposed technical improvement to the MSOA SMR<75 formula which provides more equitable weights for areas with very high mortality', John Hacking, ACRA(2014)17

Table 2: Current and proposed SMR<75 groups and weights per head

	Current groups					Hacking proposal				ACRA proposal			
	%age MSOAs	SMR<75 range		Weight per head		%age MSOAs	SMR<75 range			%age MSOAs	SMR<75 range		Weight per head
1	5%	37	62	1.0	1	0%	37	49	1	0%	37	49	1.0
2	14%	62	74	1.2	2	4%	49	61	2	4%	49	61	1.2
3	19%	74	87	1.4	3	13%	61	73	3	13%	61	73	1.4
4	17%	87	99	1.7	4	18%	73	85	4	18%	73	85	1.6
5	12%	99	111	2.0	5	16%	85	97	5	16%	85	97	1.8
6	10%	111	124	2.4	6	13%	97	109	6	13%	97	109	2.2
7	8%	124	136	2.9	7	10%	109	121	7	10%	109	121	2.5
8	6%	136	149	3.5	8	8%	121	133	8	8%	121	133	2.9
9	5%	149	166	4.2	9	6%	133	145	9	6%	133	145	3.4
10	5%	166	278	5.0	10	5%	145	157	10	5%	145	157	4.0
					11	3%	157	169	11	3%	157	169	4.6
					12	2%	169	181	12	2%	169	181	5.4
					13	1%	181	193	13	1%	181	193	6.3
					14	1%	193	206	14	1%	193	208	7.4
					15	0%	206	218	15	1%	208	222	8.6
					16	0%	218	230	16	0%	222	278	10.0
					17	0%	230	242					
					18	0%	242	254					
					19	0%	254	266					
					20	0%	266	278					

6.7 The impact of this change is relatively small for the majority of MSOAs. However, for the 5% of MSOAs with the worst SMR<75s there is a more marked increase, with some seeing their weighting double. There is also a small effect for some of the best performing MSOAs, where the splitting of the previous first bin sees a 20% increase in their weighting. This is offset in the previous bins 8 and 9, which see a reduction in their weighting of around 3% and 5% respectively.

6.8 These weightings are applied at MSOA level and then aggregated up to LAs, and the impacts are shown in Annex A and in Figure 3 below. These clearly show that most of the impact is in LAs with higher IMDs. On average, LAs with the most deprived populations benefit from this change. There is also a hint of a beneficial impact for the most affluent LAs, although this may not be significant.

Figure 3: The impact of changing the weighting of SMR<75 groups on LA target shares
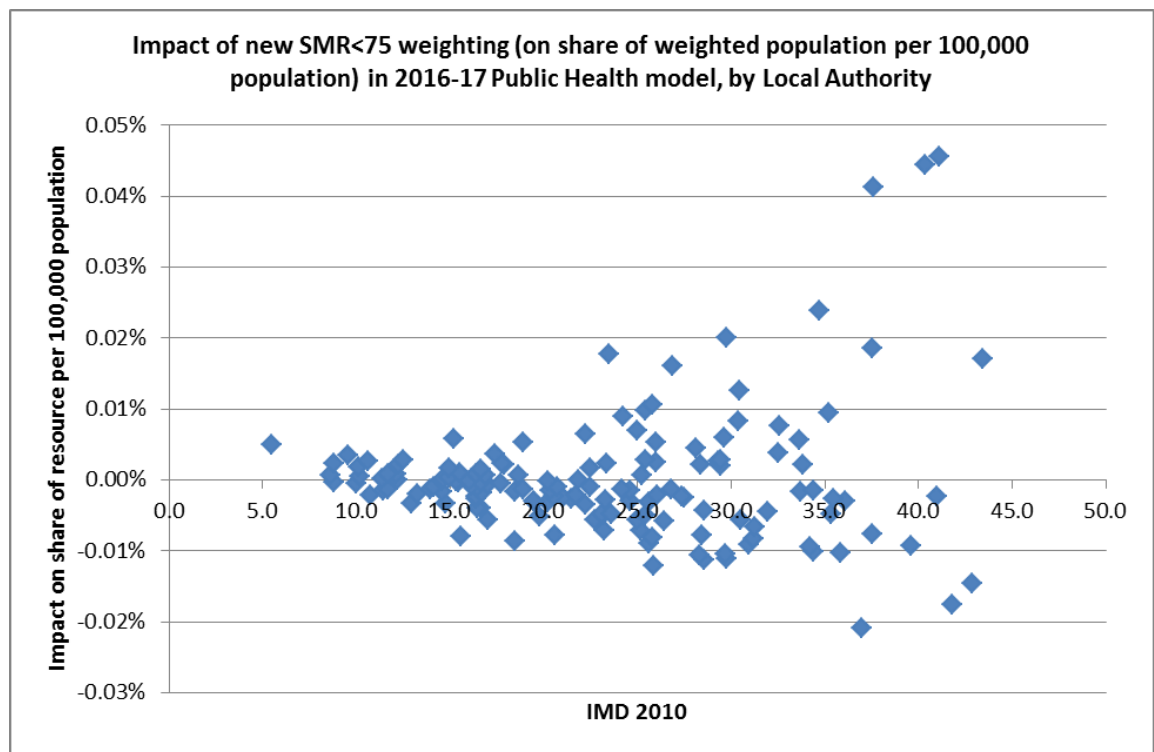
Q2 : Do you agree that the sixteen groups outlined above provide a sensible balance between sensitivity to the most extreme mortality rates and protection against volatility of measurement?

7   Substance misuse

7.1   The current formula for substance misuse is based on a mixture of SMR<75 (reflecting underlying need), recent activity and (for 2013-14) recent success rates. This approach provided consistency with the approach previously used for Pooled Treatment Budgets (PTB). The use of SMR<75 for the underlying need was also consistent with the wider public health formula. The PTB approach was designed to provide an allocation based on need and incentive to improve performance, and the relative weightings of the components are largely based on judgement in the PTB formula and which ACRA adopted .

7.2   Since ACRA proposed this approach there have been two further developments. First the Health Premium Incentive Scheme pilot has been implemented with a focus on substance misuse. This leaves ACRA free to focus their work exclusively on need. Second, colleagues at Manchester University were commissioned to make use of 2013-14 National Drug Treatment Monitoring System (NDTMS) data to support the work of ACRA.

7.3   Use of NDTMS data has allowed the development of a utilisation based formula for individual treatment services for both drugs and alcohol misuse. This involved modelling the use of these treatment services using data on clients' characteristics, their place of residence, and supply variables. Supply variables are included to account for the possibility of supply induced demand, but are not included in the formula for target allocations.

7.4   As discussed above in the context of SMR<75, this approach has the key benefit of driving allocations based on underlying drivers of need, ensuring those areas with high levels of need continue to get the resources they require, even if they have success in reducing demand by delivering effective interventions and prevention.

7.5   The selection of the explanatory variables to be tested was based on the available research on the characteristics of treatment service clients. A wide range of potential need variables were tested and the final selection chosen on the basis of statistical criteria. Need variables that were tested but rejected included IMD crime, income and environment domain scores, as these were highly correlated with other predictor variables.

7.6   ACRA is proposing that the component of the overall formula for substance misuse based on modelled activity is an improvement on the component being based on actual activity, as is the case with the current formula, and so should be adopted.

The data

7.7   The activity data are for 2013-14 from the National Drug Treatment Monitoring System (NDTMS). This dataset covers Tier 3 (structured community-based) and Tier 4(residential treatment) services, for which NDTMS is considered near comprehensive. Those aged under 9 and over 75 years are excluded from the

NDTMS dataset. The 2013-14 dataset covers around 319,000 clients engaging in approximately 413,000 treatment episodes.

7.8   NDTMS does not include the client's Lower Layer Super Output Area (LSOA) or full postcode and therefore, the geographical unit of analysis was postcode sector / LA combinations (for 10,039 areas). Postcode sectors are exclusive of the last two characters, eg, LS2 7 rather than LS2 7UE.

The models

7.9   A number of models were developed by the researchers. ACRA recommended that a single model for drug and alcohol treatment services should be used rather than separate models for drugs and for alcohol misuse services. This was due to concerns over the robustness of the model for alcohol services alone and because spend data from LA returns are only available at the combined level.

7.10   The researchers developed models based on three methodologies.

7.11   Model 1: Age standardised model: The dependent variable is the ratio of actual to expected cost for each postcode sector / LA combination. Expected cost was obtained by calculating national costs per capita for eight age bands (under 15, 15 to 19, 20 to 24, 25 to 29, 30 to 44, 45 to 59, 60 to 64, 65 and above) and applying these national average costs to each area's population. Need and supply variables at area level were then tested to explore how well they predicted the actual to expected cost ratio.

7.12   Model 2: Age-stratified model: Separate models were developed for those aged 18 and over and those aged under 18.

7.13   Model 3: Person-based model: The dependent variable is the actual cost per person, not the ratio of actual to expected cost. Person level data for those with treatment records are combined at area level with data by age group for those with no treatment records. Data on previous year's treatments are at person level.

7.14   The person-based approach was found to be statistically superior and so preferred by ACRA. This was largely due to the inclusion of individual level characteristics data, including past use of services. Past use of addiction services is known to be an important predictor of future use.

7.15   In developing the person-based model, the researchers added further explanatory variables in each step. ACRA preferred the person-based model with the full-set of variables to avoid over-reliance on past use. The need variables included in the preferred model are shown in Table 3, alongside whether they increase ('plus' in the table) or lower ('minus' in the table) target allocations per head.

Table 3: Need variables in preferred substance misuse formula

Variable	Need
Days of treatment previous year (12/13)	+
Completed treatment previous year (12/13)	-
Received prescribing previous year (12/13)	+
SMR	+
Population turnover	+
Proportion male	+
Age 15-19	+
Age 20-24	+
Age 25-29	+
Age 30-44	+
Age 45-59	+
Age 60-64	+
Age 65+	-

The impact

7.16   The impact of this change on target share (compared with the formula with data updates and new SMR<75 bins) is provided at Annex A and is summarised in Figure 4. This figure shows the size of the impact compared to the IMD2010 and the proportion of young adults for the LA. The area of the circle is proportional to the change in the share per 100,000 of population. Solid circles indicate an increased target share and open circles a reduced target share. Solid red or bold open circles are for LAs in London, while solid blue or faint open circles are for LAs outside London.

7.17   This suggests that most of the impact is to target more resources at the most deprived areas. There is no suggestion of a shift of the target towards or away from areas with younger populations.

Figure 4: The impact of changing the substance misuse formula on LA target shares. Solid circles indicate an increased target share, open circles a reduced target share, with the area of the circle proportional to the impact (London in solid red / bold, other in solid blue / faint).
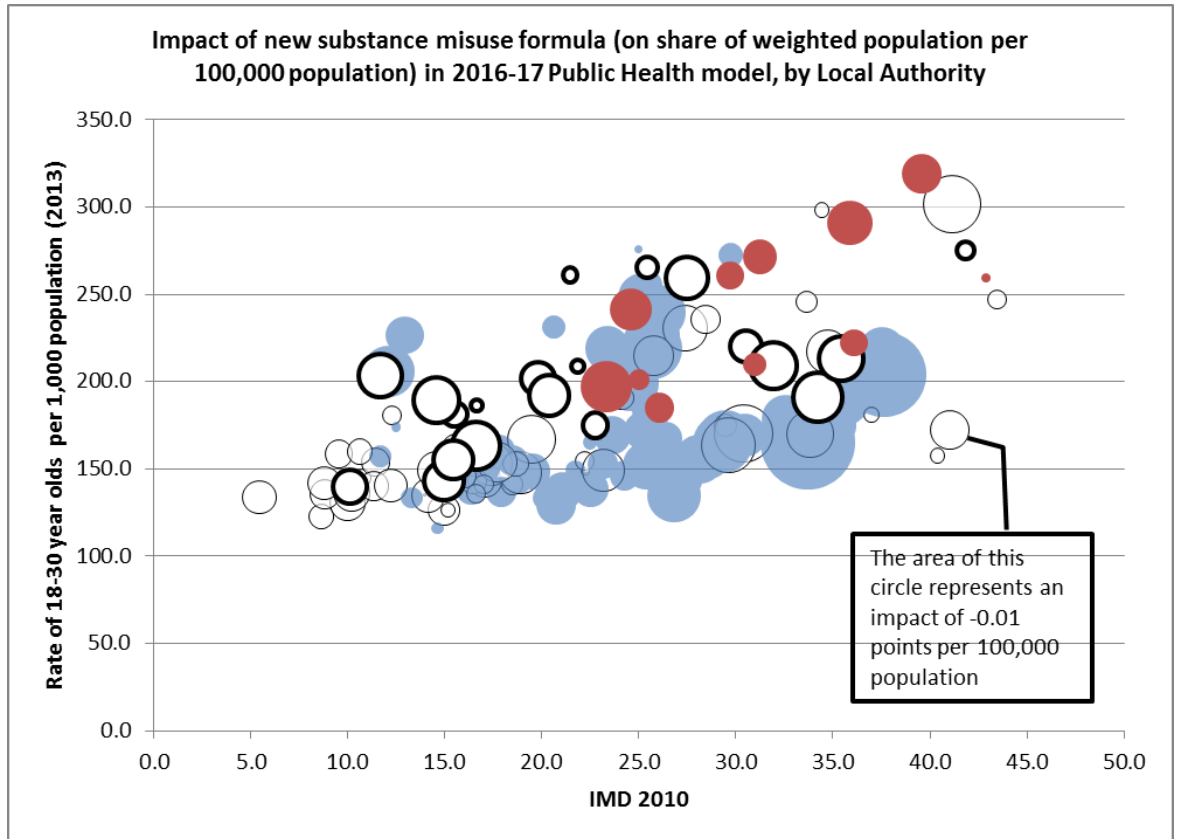
Impact of new substance misuse formula (on share of weighted population per 100,000 population) in 2016-17 Public Health model, by Local Authority

The area of this circle represents an impact of -0.01 points per 100,000 population

Q3: Do you agree that the proposed new substance misuse formula component should be introduced?

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8   Sexual health services

8.1   We noted above that, in part, SMR<75 is a proxy for the effects of deprivation on need for public health services. On this basis the SMR<75 weighting was used in setting the target.

8.2   The responses to the engagement exercise undertaken in 2012 on the proposed formula for 2013-14 included a strong view from some areas that the SMR<75 was not correlated with the need for sexual health services. The research commissioned from the University of Manchester developed a utilisation based formula for individual sexual health services. As for substance misuse treatment services, this involved modelling the use of these treatment services using data on clients' characteristics, their place of residence, and supply variables. Supply variables are included in the model to account for the possibility of supply induced demand, but are not included in the formula for target allocations.

8.3   ACRA recommended that new models of activity were an improvement on using the SMR<75 plus an age-gender adjustment for the sexual health treatment services component in the overall formula.

The data

8.4   The data are for 2013-14 from Genitourinary Medicine Clinic Activity Dataset (version 2, GUMCADv2) and the Chlamydia Testing and Activity Dataset (CTAD). The GUMCADv2 data set used had level 3 diagnoses and services provided, i.e., the activity in GUM clinics. While level 2 data are now collected in GUMCADv2, these data were not available at the time the research was undertaken. Level 2 covers enhanced GP services, sexual and reproductive health services, young people's services and others (e.g. outreach programmes).

8.5   CTAD covers all GUM and non-GUM clinic chlamydia testing in England. Both GUMCADv2 and CTAD include patients' LSOA. The Sexual and Reproductive Health Activity Dataset (SRHAD) complements GUMCADv2 by including data on sexual health and reproductive services provided in the community, however data at the level of detail required were not available from SRHAD at the time the research was undertaken.

The models

8.6   The researchers developed models based on three approaches:

- Model 1:   Person-based – GUMCADv2
- Model 2 :   Person-based – GUMCADv2 and CTAD
- Model 3 :   Small geographical area based - LSOA-age-gender level, using GUMCADv2 and CTAD

8.7   The explanatory variables chosen for testing were based on key drivers highlighted in reports by Public Health England and the sexual and health profiles tool. A wide range of potential need variables were tested and the final selection chosen on statistical grounds.

8.8   ACRA preferred Model 2 – person-based GUMCADv2 and CTAD. The person-based model using only GUMCADv2 data excludes chlamydia testing outside GUM clinics. The LSOA based model loses all information on historic activity and variations in need by age gender groups between LSOAs and was not favoured by ACRA.

8.9   The need variables included in the preferred model are shown in Table 4, alongside whether they increase ('plus' in the table) or lower ('minus' in the table) target allocation per head.

Table 4: Need variables in preferred sexual health services

Variable	Need
IMD 2010 environment score	+
Jobseekers allowance claimants (2010 rate)	+
Average houshold size	-
Proportion black/carribean	+
Proportion same-sex civil partnership	+
Patient 2012-13	+
Female	+
Age 0-14	-
Age 15-19	+
Age 20-24	+
Age 35-44	-
Age 45-64	-
Age 65-99	-

Note: IMD environment score was included as the best indicator in statistical terms of deprivation.

8.10   It was not possible for the formula for sexual health services to model need for the Isles of Scilly and the City of London due to their small population sizes; they were modelled as part of Cornwall and Hackney respectively. The same need weighting for sexual health services is then used for both Cornwall and Isles of Scilly, and both Hackney and City of London.

8.11   LAs report expenditure in three categories for sexual health services: sexually transmitted infection (STI) testing and treatment; contraception; and advice, prevention and promotion. ACRA recommended that there are two components in the overall model for sexual health services:

• A component covering STI testing and treatment, and contraception, based on the formula developed by the University of Manchester.

• A component for advice, prevention and promotion, for which the SMR<75 without an age-gender adjustment would be used. ACRA felt that the utilisation formula for treatment services would not be an appropriate base for advisory, prevention and promotion services.

The impact

8.12   The impact of this change on target share (compared with the model including data updates, new SMR<75 bins and new substance misuse component) is at Annex A and is summarised in Figure 5. This figure shows the size of the impact

compared to the IMD2010 and the proportion of young adults for the LA. The area of the circle is proportional to the impact. Solid circles indicate an increased target share and open circles a reduced target share. Solid red or bold open circles are for LAs in London, while solid blue or faint open circles are for LAs outside London.

8.13   Outside London the effect is predominantly to target more resources in more affluent areas and away from more deprived areas. This is consistent with the criticism of the existing approach: SMR<75 (which is highly correlated with deprivation) is not a good predictor of sexual health services utilisation, and so the most deprived areas tended to see their target share reduce as this is corrected.

8.14   In contrast, London is clearly a net beneficiary of this change, with just two boroughs seeing a reduction of their target share, even when they are in the most deprived groups. This is consistent with the view of the London Boroughs in particular who felt the existing formula underestimates need for these services in their areas. London Boroughs appear to be seeing a greater estimated need because of the statistical association found between areas with higher need and areas with a poorer IMD-environment score and areas with a higher proportion of Afro-Caribbean population.

Figure 5 : The impact of changing the sexual health formula on LA target shares. Solid circles indicate an increased target share, open circles a reduced target share, with the area of the circle proportional to the impact (London in solid red / open bold, other in solid blue / open faint).
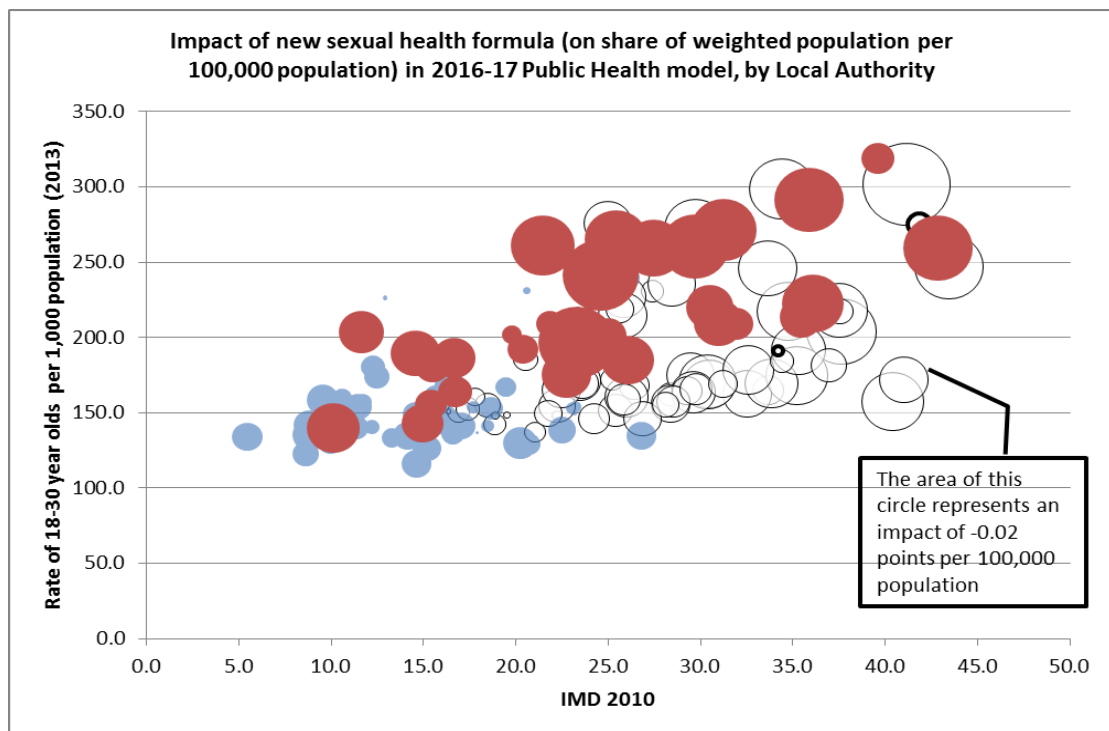
Q4 : Do you agree that the proposed new sexual health services formula component should be introduced?

9 Children's services (0-5)

9.1 The responsibility for commissioning public health services for children aged under 5 years (commonly referred to as '0-5 children's public health services') transfers from NHS England to LAs from October 2015. The budgets for October 2015 to March 2016 are primarily on the basis of 'lift and shift.'[6] A component for 0-5 children's services to the overall public health formula will first be introduced in 2016-17.

9.2 There was a short engagement with LAs in March 2015, with a focus on seeking evidence for the formula. The proposals outlined here take account of the feedback received during that engagement.

9.3 The formula proposed by ACRA has three elements:

- The population base;

- An adjustment for relative need per head of the population base; and,

- Sparsity - subject to materiality.

Population base

9.4 The proposed population base is the number of children aged under 5 in each LAs, as projected by ONS. While the universal service pattern is focused on interventions at specific ages, such as new born or two-year old checks, the aim is to improve the health and well-being of all children aged under 5 years and provide extra support where needed.[7] The logical population base therefore is the number of children aged under 5 in each LA.

9.5 The potentially higher costs of children moving into an area has been raised, the higher costs arising from the need to undertake entirely new reviews of those children's health and well-being. Data are available on the number of children moving into a LA, but data on moves within a LA are only available from the Population Census.

9.6 ACRA is not aware of quantified evidence that costs are higher for children moving into an area and the scale of such costs. In the absence of evidence on costs, ACRA has not recommended that there is an adjustment to the formula for the number of children moving into the area but has recommended that further work should be undertaken on the impact of population churn.

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[6] www.gov.uk/government/publications/transfer-of-0-5-childrens-public-health-commissioning-to-local-authorities

[7] See vivbennett.blog.gov.uk/2015/03/05/the-4-5-6-model/ for a description of the health visitor model.

Relative need per head

9.7   In addition to universal services, resources for public health for 0-5 children are targeted towards families with higher need and vulnerable first time mothers. ACRA propose that there should be an adjustment for this relatively higher need, which is likely to be aligned with more deprived areas.

9.8   There is no ideal measure of relative need per head. ACRA favours the use of the Children in Low Income Households measure, defined as the proportion of under 16-year olds living in families in receipt of out of work benefits or tax credits where their income is less than 60% of median income. The latest data are currently for 2012 and data for 2013 will be published in September. This measure is included in the Public Health Outcomes Framework (PHOF). There are no datasets separately identifying the proportion of children under 5 in low income households.

9.9   ACRA also considered the proportion of live births at term that are low birth weight and the number of births to women aged under 20 years. However, data on these were felt to be too volatile at LA level due to small numbers and not broad enough to capture all children with higher need. The IMD2010 indices, which are based on data for around 2008, were felt to be too dated. The date of publication of the IMD2015 indices has not yet been finalised.

9.10   Children in need of support from social services and children in need of safeguarding and subject to a child protection plan were also considered, but not recommended due to concerns over the variability between LA in the interpretation of the definition of, and routes to identify, children in need and in need of a child protection plan.

9.11   There is however a number of issues with ACRA's preferred measure. It is a binary measure; children are classified as being in poverty or not, and no account is taken of the depth of poverty of those in poverty which may vary between areas. The definition of children in low income households is to be replaced and the measure will also be affected by changes to the benefits system. However, despite these issues ACRA currently views children in low income households as preferable to other measures.

9.12   ACRA also considered an approach which combined a number of measures based on a technique called principal components analysis. This has the advantage of not replying on a single measure, but combining the measures is not straight forward and transparency would be lower. ACRA felt this approach was worthy of further investigation, but presently favour using the single measure of children in low income households.

9.13   The measure needs to be scaled – how much higher should be the weight per head for children in poverty compared with children not in poverty. ACRA has found little evidence to support a particular weighting and an element of judgement is required.

9.14   Advice from Public Health England has suggested a ratio of 3:1. This means children in low income households receive a weight per head three times higher

than children not in low income households. Others have suggested a higher ratio, such as 5:1.

9.15   ACRA would welcome further advice on the weights, which will be a matter of judgement, before reaching its final recommendations. At this stage however they are proposing a ratio of 4:1 as reflecting a central position given the advice they have received.

9.16   ACRA is not recommending a separate component in the formula for Family Nurse Partnerships due to lack of materiality in the overall formula.

Sparsity

9.17   Sparsity may create unavoidable differences in the costs of providing some 0-5 children's public health services between LAs, in particular where health visitors travel for home visits. Travel time is likely to be longer in sparsely populated areas, and possibly major conurbations. The MFF does not take account of unavoidable costs due to sparsity. ACRA has developed an approach to test the materiality of an adjustment for sparsity.

9.18   Data on health visitors' travel times are not held centrally. A standard approach for simulating travel times is the 'travelling salesman' methodology,[8] which has been used to estimate the minimum travel time within small areas (MSOAs) based on the road network rather than distance as the crow flies.

9.19   There are a number of available software packages which include 'travelling salesman' algorithms. Combined with data on the number of children by age in each very small area (ONS Output Areas), a number of assumptions are required to run the 'travelling salesman' model. These include the proportion of time spent in clinics versus home visits, duration of contact time with families, and average speeds for different types of roads.

9.20   Advice from Public Health England on the estimated proportion of home visits to clinic appointments is as set out in Table 5. The average percentage of home visits is 48% and this has been used in the model.

9.21   Public Health England suggests that contact time with families is of the order of: ante-natal review 1 hour, new baby review 2 hours, 6-8 weeks check 1 hour, 1 year review 1 hour, and 2 to 2.5 years review 2 hours. In the model the contact time with families was set at an average of 60 minutes.

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[8] http://www.csd.uoc.gr/~hy583/papers/ch11.pdf

Table 5: Health visitors home visits to clinic appointments

	Estimated % home visits	**Estimated % at clinic**
Ante-natal	50%	50%
New birth visit	0%	100%
6-8 weeks	30%	70%
9 to 15 months	80%	20%
2 - 2.5 years	80%	20%
Average	**48.0%**	**52.0%**

9.22   From the model, the estimated average top and bottom ten mean travel times across LAs are shown in Table 6,[9] along with estimated total times (the weighted average of travel time plus contact time).

9.23   These results suggest a ratio between the 10th highest and 10th lowest average LA travel time of approximately 7:2. To turn this into an unavoidable cost index it must be combined with the average time for each home visit. Based on the assumption that it is 60 minutes, with 48% of total visits home visits, then the ratio of costs becomes 1.04:1, that is to say additional travel time means that health visitors in the East Riding of Yorkshire need 4% more resource than in Kensington and Chelsea, all else being equal.

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[9] See 'ACRA (2015)11 – Public health formula' for more information.

Table 6: Estimated average top and bottom ten travel times across LAs

Local Authority name	Estimated mean travel time per visit (mins)	Total visits	Estimated total time (mins)
Hackney	1.8	306	60.9
Tower Hamlets	1.8	295	60.9
Hammersmith and Fulham	1.8	202	60.9
Newham	1.9	394	60.9
Southwark	1.9	349	60.9
Islington	1.9	207	60.9
Westminster	1.9	215	60.9
Wandsworth	1.9	380	60.9
Lambeth	1.9	332	60.9
Kensington and Chelsea	1.9	170	60.9
East Riding of Yorkshire	7.2	256	63.5
Lincolnshire	7.3	614	63.5
Cornwall	8.1	427	63.9
Rutland	8.9	18	64.3
Shropshire	9.3	219	64.4
Cumbria	9.3	411	64.5
Devon	9.4	596	64.5
Northumberland	9.5	266	64.6
North Yorkshire	9.9	465	64.7
Herefordshire, County of	10.2	157	64.9

Market Forces Factor

9.24 ACRA recommended that the MFF to take account of unavoidable costs due to location continues to be applied to the whole of the public health formula, including the new component for children's 0-5 public health services.

9.25 The MFF is that used in NHS allocations to Clinical Commissioning Groups, which has been mapped to LAs. This was preferred by ACRA to the Area Costs Adjustment in the Local Government formula as it should be updated more frequently.

The impact

9.26 The impact of this change on the overall target share (compared to the model with data updates, new SMR<75 bins, and new sexual health services and substance misuse components) is at Annex A and is summarised in Figure 6. This figure shows the size of the impact compared to the IMD2010 and the number of births per 1,000 population for the LA. The area of the circle is proportional to the impact. Solid circles indicate an increased target share and open circles a reduced target share. Inside and outside London are not distinguished in this case as the effects are more uniform.

9.27   As we would expect, the addition of this component tends to benefit areas with higher birth rates. It also has a tendency to reduce the target share for more deprived areas.

9.28   Although counter intuitive at first sight, this is because core health visiting is a universal service and so, the net effect of the weighting for deprivation in this part of the formula is less than for other parts of the formula. Unlike other impacts described in this document, the change here is also associated with an increase in quantum and so a reduced target share may still be associated with an increased target in absolute terms.

Figure 6: The impact of adding the children's 0-5 formula on LA target shares. Solid circles indicate an increased target share, open circles a reduced target share, with the area of the circle proportional to the impact.

Impact of Children under 5 component (on share of weighted population per 100,000 population) in 2016-17 Public Health model, by Local Authority

The area of this circle represents an impact of -0.03 points per 100,000 population
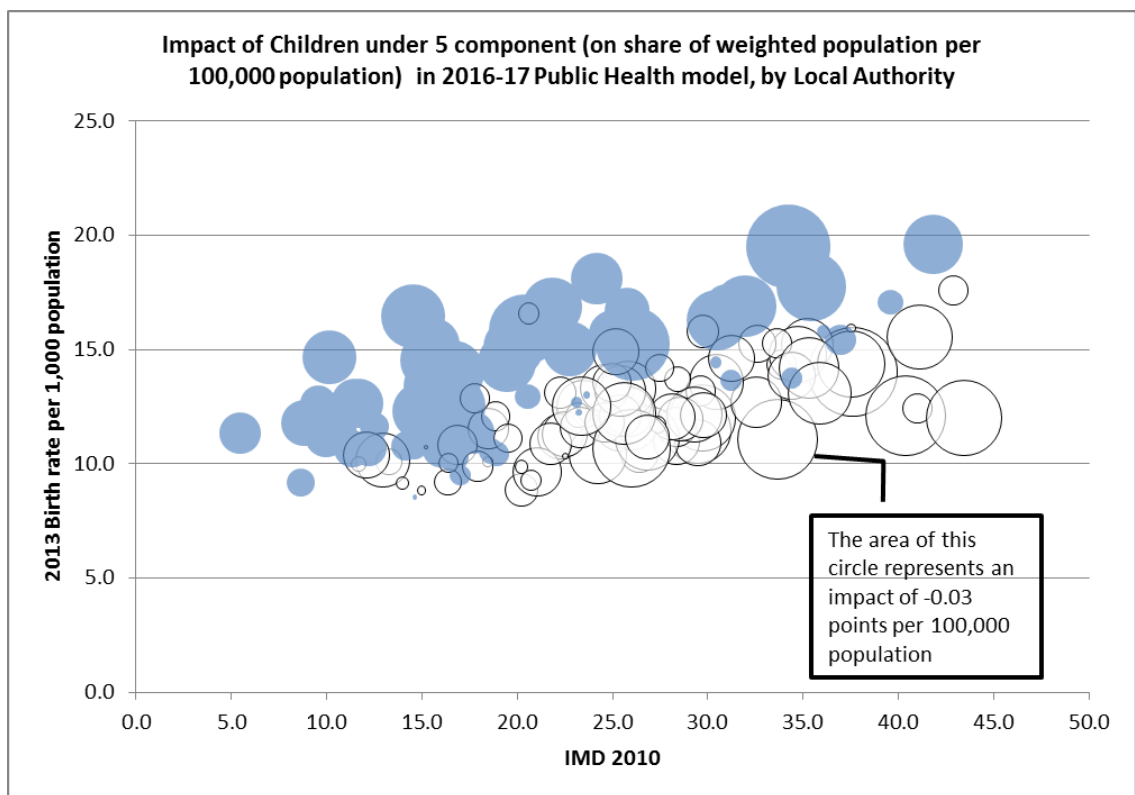
Q5: Do you agree that the proposed new services for children under five years formula component should be introduced?

10 The overall impact

10.1   The table at Annex A shows how the target share of available resources (expressed as a percentage per 100,000 population) varies as the new model is built up. Comparing the first and last columns shows the net effect.

10.2   We have looked first at the net impact of formula changes excluding children 0-5 and data updates. This then focuses on the impact of formula changes rather than data or scope changes. Figure 7 shows this using the same format as before. (The area of the circle is proportional to the impact. Solid circles indicate an increased target share and open circles a reduced target share. Solid red or bold open circles are for LAs in London, while solid blue or faint open circles are for LAs outside London.)

Figure 7 : The impact of formula updates on LA target shares. Solid circles indicate an increased target share, open circles a reduced target share, with the area of the circle proportional to the impact (London in solid red / open bold, other in solid blue / open faint).
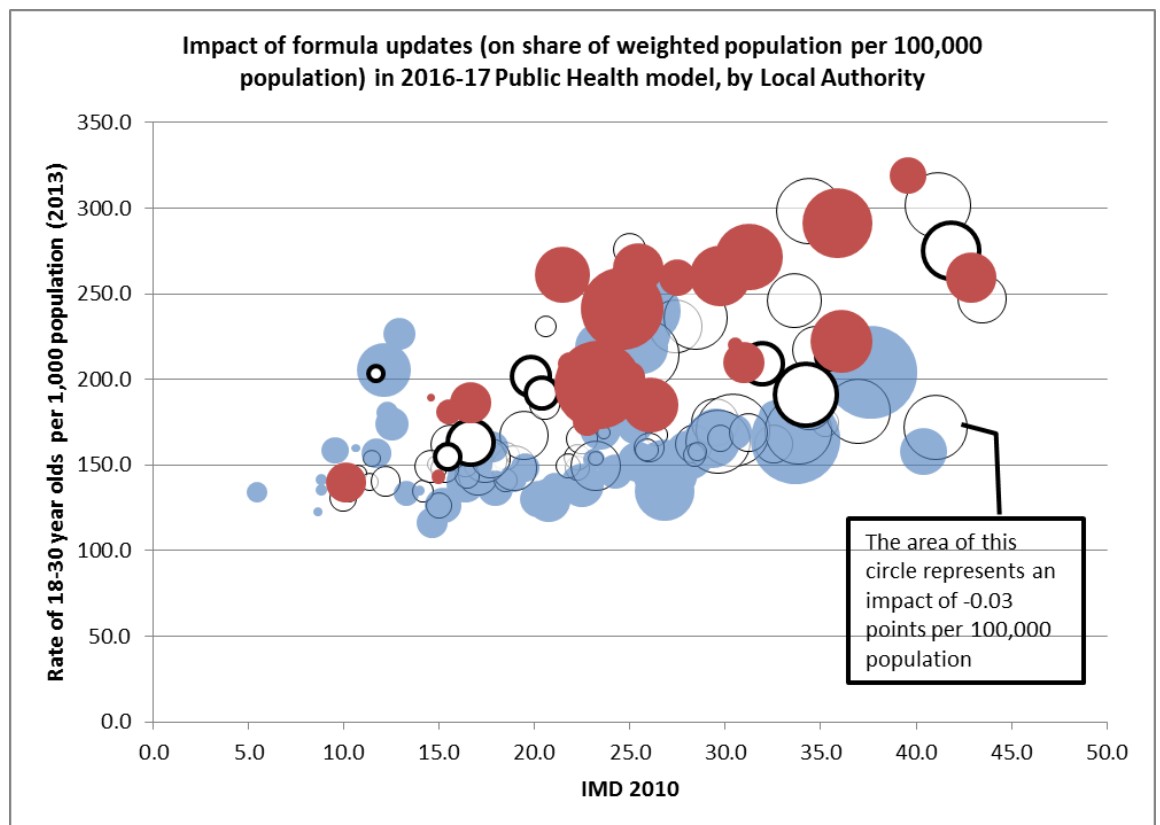
10.3   This suggests that in London the change in the sexual health services formula is the dominant effect, while outside London the change in the substance misuse formula is more important. There is a mixture of winners and losers across the IMD range, although the swings tend to be larger for the more deprived LAs.

10.4   Figure 8 shows the total impact of including formula updates and the new children's 0-5 component. As we noted above, the children's 0-5 formula is less

redistributive than the existing formula components. This means that the overall impact of the changes is almost universally positive for IMD2010 below 15.0. Above this the impact is more mixed with deprivation, although in any one deprivation group LAs with younger populations are more likely to see their target share increase.

Figure 8: The impact of formula updates and including the children's 0-5 component on LA target shares. Solid circles indicate an increased target share, open circles a reduced target share, with the area of the circle proportional to the impact (London in solid red / open bold, other in solid blue / open faint).
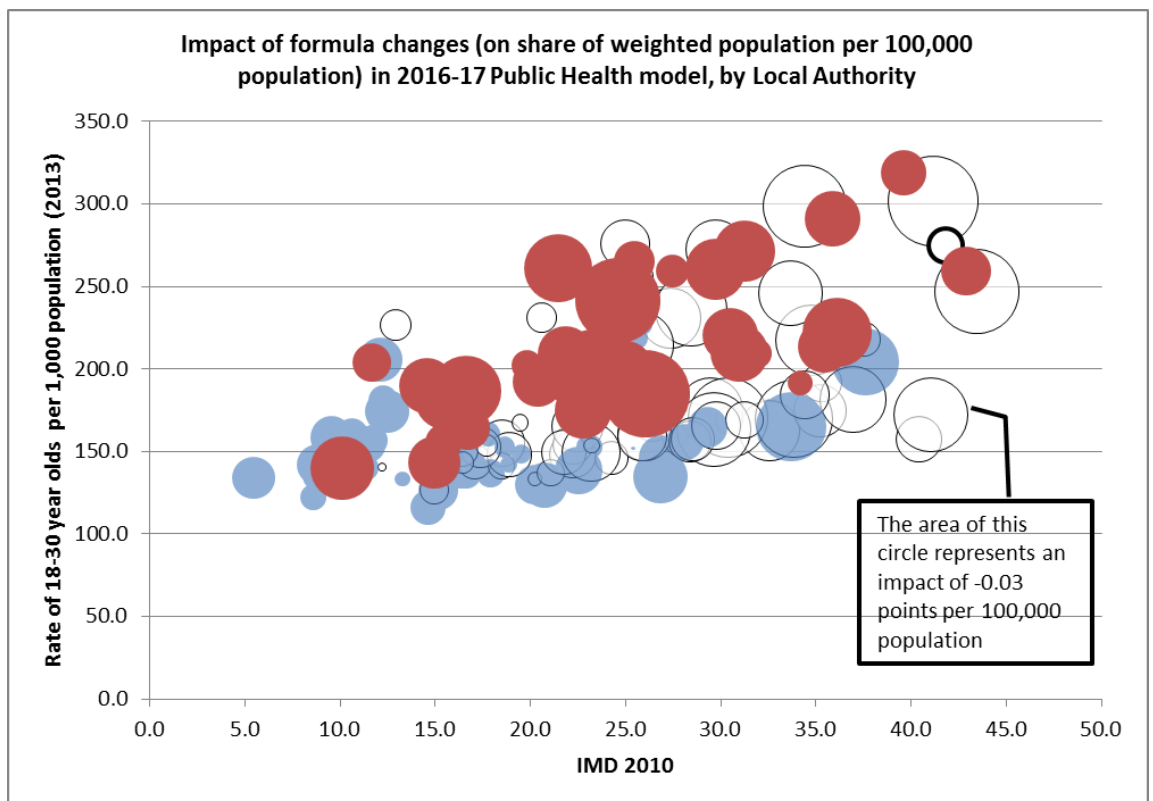
10.5   When considering the impact of these changes it is worth remembering that the formula continues to strongly favour LAs with deprived populations. The issue is how much the challenges faced by these populations should be translated into greater allocations. The net effect of all the changes (data updates, model updates and the addition of the children's 0-5 component) on the target distribution with respect to IMD2010 is shown in Figure 9. The new formula is still strongly redistributive, with the most deprived LAs having a target per head that is three times greater than the most affluent LAs.

Figure 9: The impact of data updates, formula updates and including the children's 0-5 component on LA target shares.
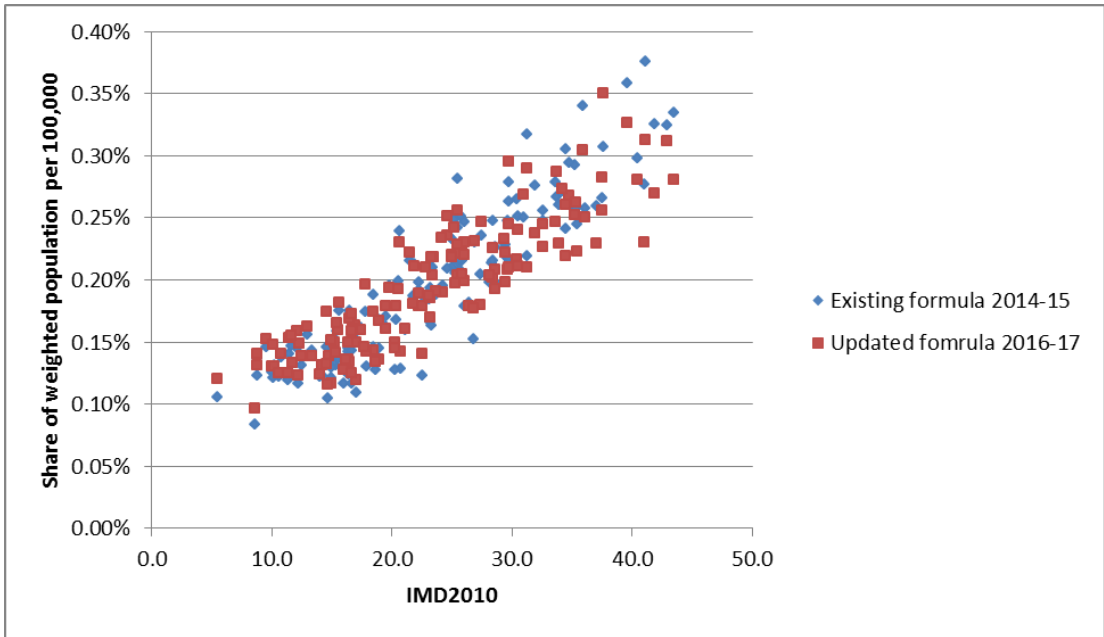
11 Next steps

Public Health Allocations including 0-5 children's services

11.1   The tentative timetable for allocation 2016/17 subject to HA clearance and SR settlement is as follows,

i.	Response to consultation closes	6 November 2015
ii.	Analysis and review by ACRA and Final Recommendation to Ministers	Mid November 2015
iii.	Allocation finalised subject to SR settlement	End November 2015
iv.	Allocations announcement	December 2015/January 2016

- We would welcome feedback on ACRA recommendations which make up the formula for public health services. Feedback should be emailed to PHformula2016/17@dh.gsi.gov.uk by **6 November 2015**

Annex A - Distribution of resources to LAs based on the ACRA formula.

	Share of weighted population per 100,000 population					
Local Authority	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
Barking and Dagenham	0.27%	0.27%	0.26%	0.24%	0.24%	0.27%
Barnet	0.14%	0.14%	0.14%	0.14%	0.15%	0.17%
Barnsley	0.23%	0.22%	0.21%	0.23%	0.22%	0.21%
Bath and North East Somerset	0.14%	0.15%	0.15%	0.17%	0.17%	0.16%
Bedford	0.17%	0.19%	0.20%	0.20%	0.20%	0.20%
Bexley	0.15%	0.15%	0.15%	0.14%	0.14%	0.16%
Birmingham	0.27%	0.26%	0.25%	0.26%	0.26%	0.26%
Blackburn with Darwen	0.29%	0.27%	0.28%	0.29%	0.27%	0.25%
Blackpool	0.30%	0.29%	0.34%	0.34%	0.31%	0.28%
Bolton	0.25%	0.24%	0.26%	0.27%	0.25%	0.24%
Bournemouth	0.21%	0.20%	0.20%	0.22%	0.22%	0.20%
Bracknell Forest	0.15%	0.14%	0.14%	0.14%	0.15%	0.15%
Bradford	0.25%	0.24%	0.25%	0.27%	0.25%	0.25%
Brent	0.21%	0.19%	0.19%	0.18%	0.19%	0.21%
Brighton and Hove	0.25%	0.23%	0.23%	0.25%	0.26%	0.23%
Bristol, City of	0.25%	0.25%	0.24%	0.26%	0.25%	0.24%
Bromley	0.13%	0.13%	0.14%	0.12%	0.14%	0.15%

Local Authority	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
			Share of weighted population per 100,000 population			
Buckinghamshire	0.13%	0.13%	0.13%	0.12%	0.12%	0.13%
Bury	0.19%	0.20%	0.20%	0.20%	0.19%	0.19%
Calderdale	0.19%	0.21%	0.20%	0.19%	0.19%	0.19%
Cambridgeshire	0.13%	0.13%	0.13%	0.13%	0.13%	0.14%
Camden	0.28%	0.25%	0.24%	0.24%	0.26%	0.26%
Central Bedfordshire	0.14%	0.13%	0.13%	0.13%	0.13%	0.14%
Cheshire East	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%
Cheshire West and Chester	0.16%	0.16%	0.16%	0.17%	0.17%	0.16%
City of London	0.11%	0.11%	0.11%	0.10%	0.17%	0.16%
Cornwall	0.12%	0.13%	0.13%	0.14%	0.14%	0.14%
County Durham	0.18%	0.19%	0.18%	0.19%	0.19%	0.18%
Coventry	0.25%	0.26%	0.25%	0.24%	0.23%	0.23%
Croydon	0.18%	0.19%	0.18%	0.18%	0.20%	0.21%
Cumbria	0.16%	0.17%	0.16%	0.17%	0.17%	0.16%
Darlington	0.22%	0.20%	0.21%	0.22%	0.22%	0.20%
Derby	0.24%	0.24%	0.24%	0.26%	0.25%	0.24%
Derbyshire	0.15%	0.15%	0.15%	0.14%	0.14%	0.14%
Devon	0.11%	0.12%	0.11%	0.11%	0.12%	0.12%
Doncaster	0.22%	0.22%	0.21%	0.23%	0.22%	0.21%
Dorset	0.10%	0.11%	0.11%	0.11%	0.12%	0.12%

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Public health grant: proposed target allocation formula for 2016/17

Local Authority	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
			Share of weighted population per 100,000 population			
Dudley	0.17%	0.17%	0.16%	0.17%	0.17%	0.17%
Ealing	0.21%	0.20%	0.20%	0.20%	0.21%	0.22%
East Riding of Yorkshire	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
East Sussex	0.13%	0.13%	0.13%	0.14%	0.15%	0.14%
Enfield	0.18%	0.17%	0.17%	0.18%	0.20%	0.22%
Essex	0.13%	0.14%	0.14%	0.13%	0.13%	0.14%
Gateshead	0.23%	0.22%	0.22%	0.25%	0.24%	0.22%
Gloucestershire	0.13%	0.14%	0.14%	0.12%	0.13%	0.13%
Greenwich	0.28%	0.23%	0.23%	0.21%	0.22%	0.24%
Hackney	0.32%	0.30%	0.28%	0.28%	0.32%	0.31%
Halton	0.26%	0.25%	0.25%	0.25%	0.24%	0.23%
Hammersmith and Fulham	0.24%	0.24%	0.24%	0.22%	0.25%	0.25%
Hampshire	0.12%	0.12%	0.12%	0.11%	0.12%	0.13%
Haringey	0.26%	0.22%	0.22%	0.22%	0.25%	0.25%
Harrow	0.14%	0.14%	0.14%	0.13%	0.14%	0.16%
Hartlepool	0.27%	0.26%	0.25%	0.32%	0.32%	0.29%
Havering	0.16%	0.16%	0.16%	0.14%	0.15%	0.16%
Herefordshire, County of	0.13%	0.14%	0.14%	0.15%	0.15%	0.14%
Hertfordshire	0.14%	0.15%	0.14%	0.14%	0.14%	0.15%
Hillingdon	0.20%	0.19%	0.18%	0.17%	0.18%	0.19%

Public health grant: proposed target allocation formula for 2016/17

Local Authority	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
			Share of weighted population per 100,000 population			
Hounslow	0.21%	0.19%	0.19%	0.19%	0.20%	0.21%
Isle of Wight	0.13%	0.13%	0.13%	0.14%	0.14%	0.14%
Isles of Scilly	0.09%	0.08%	0.07%	0.06%	0.08%	0.08%
Islington	0.34%	0.29%	0.27%	0.29%	0.32%	0.30%
Kensington and Chelsea	0.16%	0.17%	0.17%	0.19%	0.23%	0.22%
Kent	0.15%	0.15%	0.15%	0.14%	0.14%	0.15%
Kingston upon Hull, City of	0.28%	0.29%	0.31%	0.33%	0.30%	0.28%
Kingston upon Thames	0.15%	0.15%	0.14%	0.13%	0.14%	0.16%
Kirklees	0.21%	0.19%	0.19%	0.21%	0.20%	0.20%
Knowsley	0.28%	0.26%	0.26%	0.25%	0.23%	0.23%
Lambeth	0.32%	0.27%	0.26%	0.27%	0.30%	0.29%
Lancashire	0.19%	0.20%	0.20%	0.20%	0.19%	0.18%
Leeds	0.22%	0.22%	0.24%	0.26%	0.24%	0.23%
Leicester	0.28%	0.27%	0.28%	0.27%	0.25%	0.25%
Leicestershire	0.12%	0.13%	0.13%	0.13%	0.13%	0.13%
Lewisham	0.25%	0.25%	0.24%	0.24%	0.26%	0.27%
Lincolnshire	0.15%	0.15%	0.15%	0.13%	0.13%	0.14%
Liverpool	0.33%	0.32%	0.34%	0.34%	0.31%	0.28%
Luton	0.25%	0.25%	0.25%	0.23%	0.22%	0.23%
Manchester	0.38%	0.36%	0.41%	0.38%	0.33%	0.31%

Public health grant: proposed target allocation formula for 2016/17

Local Authority	Share of weighted population per 100,000 population					
	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
Medway	0.20%	0.20%	0.19%	0.19%	0.19%	0.19%
Merton	0.15%	0.15%	0.15%	0.14%	0.16%	0.17%
Middlesbrough	0.31%	0.32%	0.36%	0.42%	0.39%	0.35%
Milton Keynes	0.18%	0.18%	0.17%	0.17%	0.17%	0.18%
Newcastle upon Tyne	0.26%	0.27%	0.29%	0.29%	0.27%	0.25%
Newham	0.33%	0.28%	0.26%	0.26%	0.25%	0.27%
Norfolk	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
North East Lincolnshire	0.23%	0.22%	0.23%	0.25%	0.25%	0.23%
North Lincolnshire	0.19%	0.19%	0.19%	0.19%	0.19%	0.18%
North Somerset	0.13%	0.14%	0.15%	0.14%	0.15%	0.15%
North Tyneside	0.20%	0.19%	0.19%	0.19%	0.19%	0.18%
North Yorkshire	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
Northamptonshire	0.16%	0.17%	0.17%	0.16%	0.16%	0.16%
Northumberland	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
Nottingham	0.31%	0.30%	0.30%	0.30%	0.27%	0.26%
Nottinghamshire	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%
Oldham	0.26%	0.26%	0.26%	0.24%	0.22%	0.22%
Oxfordshire	0.15%	0.14%	0.15%	0.14%	0.15%	0.15%
Peterborough	0.22%	0.22%	0.21%	0.23%	0.22%	0.22%
Plymouth	0.21%	0.22%	0.22%	0.24%	0.24%	0.22%

Local Authority	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
Share of weighted population per 100,000 population						
Poole	0.13%	0.13%	0.13%	0.13%	0.13%	0.14%
Portsmouth	0.24%	0.24%	0.25%	0.25%	0.24%	0.23%
Reading	0.24%	0.24%	0.23%	0.23%	0.23%	0.23%
Redbridge	0.17%	0.16%	0.16%	0.15%	0.16%	0.18%
Redcar and Cleveland	0.20%	0.20%	0.19%	0.20%	0.20%	0.19%
Richmond upon Thames	0.12%	0.12%	0.12%	0.12%	0.13%	0.15%
Rochdale	0.26%	0.27%	0.27%	0.25%	0.23%	0.23%
Rotherham	0.20%	0.19%	0.20%	0.22%	0.21%	0.20%
Rutland	0.08%	0.09%	0.09%	0.09%	0.09%	0.10%
Salford	0.29%	0.30%	0.32%	0.31%	0.28%	0.27%
Sandwell	0.26%	0.26%	0.24%	0.23%	0.23%	0.23%
Sefton	0.20%	0.20%	0.21%	0.21%	0.21%	0.19%
Sheffield	0.20%	0.20%	0.20%	0.18%	0.18%	0.18%
Shropshire	0.12%	0.12%	0.12%	0.13%	0.13%	0.13%
Slough	0.23%	0.23%	0.23%	0.22%	0.22%	0.23%
Solihull	0.14%	0.14%	0.14%	0.15%	0.15%	0.15%
Somerset	0.12%	0.12%	0.12%	0.12%	0.12%	0.13%
South Gloucestershire	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
South Tyneside	0.21%	0.22%	0.21%	0.22%	0.21%	0.20%
Southampton	0.23%	0.24%	0.24%	0.24%	0.23%	0.22%

Local Authority	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
			Share of weighted population per 100,000 population			
Southend-on-Sea	0.18%	0.18%	0.18%	0.19%	0.19%	0.19%
Southwark	0.28%	0.27%	0.26%	0.27%	0.30%	0.29%
St. Helens	0.22%	0.21%	0.21%	0.22%	0.21%	0.20%
Staffordshire	0.15%	0.14%	0.14%	0.14%	0.14%	0.14%
Stockport	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
Stockton-on-Tees	0.22%	0.22%	0.24%	0.24%	0.23%	0.22%
Stoke-on-Trent	0.26%	0.27%	0.27%	0.30%	0.28%	0.26%
Suffolk	0.12%	0.12%	0.12%	0.11%	0.12%	0.13%
Sunderland	0.22%	0.22%	0.23%	0.22%	0.21%	0.20%
Surrey	0.12%	0.12%	0.12%	0.12%	0.12%	0.13%
Sutton	0.16%	0.16%	0.16%	0.14%	0.15%	0.17%
Swindon	0.18%	0.17%	0.17%	0.16%	0.16%	0.17%
Tameside	0.25%	0.24%	0.25%	0.23%	0.21%	0.21%
Telford and Wrekin	0.19%	0.19%	0.19%	0.20%	0.19%	0.19%
Thurrock	0.17%	0.18%	0.18%	0.16%	0.16%	0.18%
Torbay	0.15%	0.16%	0.16%	0.18%	0.19%	0.18%
Tower Hamlets	0.36%	0.31%	0.30%	0.32%	0.32%	0.33%
Trafford	0.16%	0.16%	0.15%	0.14%	0.15%	0.15%
Wakefield	0.22%	0.22%	0.21%	0.22%	0.22%	0.20%
Walsall	0.22%	0.22%	0.21%	0.21%	0.21%	0.21%

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Local Authority	Share of weighted population per 100,000 population					
	2014-15 current formula	2016-17 current formula (with data updates)	2016-17 current formula with updated SMR<75 groups	2016-17 current formula with updated SMR<75 groups & new substance misuse formula	2016-17 current formula with updated SMR<75 groups, new substance misuse & new sexual health formula	2016-17 fully updated model (with new Children under 5 years component included)
Waltham Forest	0.24%	0.21%	0.20%	0.19%	0.20%	0.22%
Wandsworth	0.22%	0.19%	0.19%	0.19%	0.22%	0.22%
Warrington	0.19%	0.19%	0.18%	0.19%	0.18%	0.17%
Warwickshire	0.14%	0.14%	0.14%	0.13%	0.14%	0.14%
West Berkshire	0.13%	0.13%	0.13%	0.12%	0.12%	0.13%
West Sussex	0.12%	0.13%	0.13%	0.12%	0.13%	0.13%
Westminster	0.21%	0.21%	0.21%	0.22%	0.26%	0.25%
Wigan	0.22%	0.22%	0.22%	0.22%	0.21%	0.20%
Wiltshire	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
Windsor and Maidenhead	0.14%	0.14%	0.13%	0.13%	0.14%	0.14%
Wirral	0.23%	0.22%	0.23%	0.26%	0.25%	0.23%
Wokingham	0.11%	0.11%	0.11%	0.11%	0.11%	0.12%
Wolverhampton	0.24%	0.23%	0.22%	0.22%	0.22%	0.22%
Worcestershire	0.13%	0.14%	0.14%	0.13%	0.13%	0.13%
York	0.16%	0.17%	0.17%	0.18%	0.18%	0.16%

Annex B – Summary of consultation questions

Name : _____

Position : _____

Organisation : _____

Email : _____

Q1 : Do you agree that a modelled SMR<75 should be developed for use in the longer term?

Response :

Q2 : Do you agree that the sixteen groups outlined above provide a sensible balance between sensitivity to the most extreme mortality rates and protection against volatility of measurement?

Response :

Q3: Do you agree that the proposed new substance misuse formula component should be introduced?

Response :

Q4 : Do you agree that the proposed new sexual health services formula component should be introduced?

Response :

Q5 : Do you agree that the proposed new services for children under five years formula component should be introduced?

Response :

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