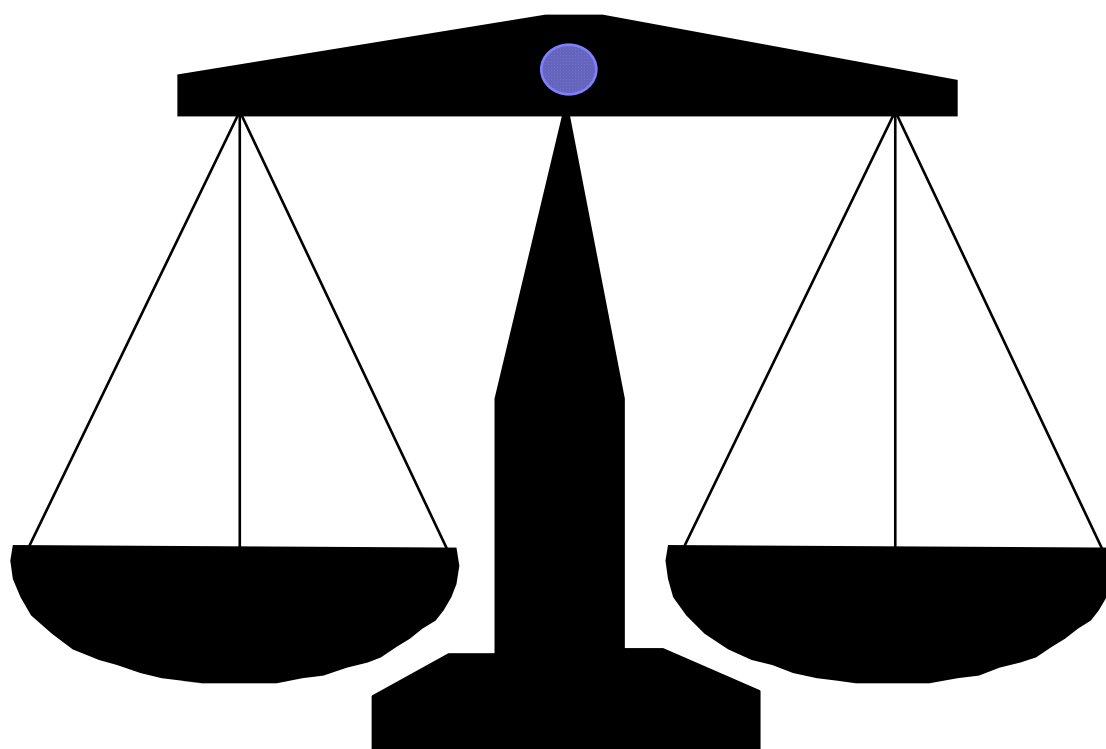


**ALLOCATING RESOURCES TO HEALTH AND SOCIAL
CARE COMMISSIONERS: PROPOSED CHANGES TO THE
WEIGHTED CAPITATION FORMULA**

**SUMMARY OF
CONSULTATION RESPONSES**



January 2009

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1 INTRODUCTION

The Fifth Report from the Capitation Formula Review Group (CFRG) contains a series of recommendations for improving the Regional Capitation Formula. The formula is used by the Department of Health, Social Services and Public Safety (DHSSPS) to inform the equitable allocation of resources in Health and Social Care.

The Fifth Review by CFRG focussed on improving the methodology used in relation to Acute Services and Elderly Care. The review also produced a series of recommendations related to costs outside the formula and whether they were being dealt with in an appropriate and equitable manner. Finally the group made recommendations relating to future areas of work.

All recommendations emerging from the review were issued for public consultation from 13 June to 12 September 2008 and this report summarises the 25 responses that were received.

Given the technical nature of the work involved the group produced a number of documents aimed at audiences with differing levels of experience and knowledge of the formula. The document "*A Summary of the Fifth Report from the Capitation Formula Review Group*" summarised the main issues in a relatively non technical manner whilst the main report "*The Fifth Report from the Capitation Formula Review Group*" was aimed at readers with more experience of the issues involved. Finally the technical manuals produced by researchers involved in the modelling work were available for readers with a background in statistics or resource allocation. In addition a two page flyer was produced to highlight the upcoming consultation in a non technical way.

As well as providing copies of the reports upon request, the Department issued a number of copies to various interested parties and stakeholders to coincide with the launch.

Four public consultation meetings were held at various venues across Northern Ireland at which the findings and recommendations contained in the Fifth CFRG report were presented and discussed. These meetings were attended by 23 different organisations (see Appendix 1 for details). A written record was made of discussions that took place. In addition a request was received from Ards Borough Council to present findings to their health committee. This request was met and a further presentation held.

Weighted Capitation Formula is currently the best available approach to determining fair share resource allocations”

A number of suggestions were made regarding how the formula could operate in future and these are summarised below.

Issue - A More Comprehensive Formula including General Practitioner Funds

A number of respondents highlighted that the current Regional Formula does not include funds to be spent on Family Practitioner Services (FPS). This includes General Medical Services (GMS) and funds for prescribing services. In 2008/09 this accounts for £774m. It was highlighted that these funds can have a “*significant impact on how services are delivered to the population*”.

Regarding the Prescribing Formula it was suggested that a needs based element should be included which could be reviewed regularly to take into account demographics and changes in prescribing practice.

Response - Large elements of FPS such as GMS and Prescribing budgets (amounting to £498m in 2008/09) are already covered by their own specific needs based capitation formulae. Whilst these were not developed at the same time as the latest updates to the main Regional Formula, there will still be an interaction between them. This is because if developments in primary care impact on the use of hospital and community services then the changed pattern of utilisation will still be picked up and accounted for in the latest modelling exercise. In addition, each separate formula development attempts to control for local policy decisions taken by commissioners. This ensures that the measurement of need is not affected by how services happen to be organised or delivered in areas. Ideally, all formulae should be modelled simultaneously in order to perfectly capture all of the interactions between the different sectors. However, the extent of such an exercise, given the current 9

programme of care structure within the Regional Formula, would likely render it unfeasible in terms of both workload and cost.

Even though separate formulae currently exist for Hospital, Community Health, and Personal Social Services (HCHPSS) on the one hand, and significant elements of FPS on the other, it could still be possible to bring them together for the purposes of a more holistic assessment of equity. It may not be feasible to unify all of the separate budgets, due to contractual issues related to parts of GMS or because of the different population bases which they serve. However such information may be useful in determining the total extent of over/under-funding in an area. This could then possibly inform how quickly areas are moved toward their target fair shares in respect of each budget. For instance, if an area was found to be under-funded on both HCHPSS and FPS, then there may be a case for moving it more quickly towards its target fair share than if it were over-funded on one budget and under-funded on another. It is proposed that this issue is brought back to CFRG for further consideration and advice. Ultimately, however, as it is related to formula implementation, it will be for the Department to decide whether it is taken forward as part of the next CFRG work programme

Issue – A Regional Formula based on Individual Patient Characteristics

One respondent highlighted that *“research is taking place in England aimed at the possibility of using a formula based on individual patient characteristics rather than the characteristics of the area in which they live”*. Is it feasible to produce a formula using the information currently held on patients?

Response – The current research in England is, as yet, in its infancy in terms of methodology and results, and so is considered purely experimental. As such it is not anticipated that this formula will be in use within England in the foreseeable future.

With regard to carrying out similar research in Northern Ireland, a number of the data sources used in England do not currently exist here. A key stumbling block is the unavailability of individual population data broken down by age, gender, and condition. As a result, to replicate the English research would first involve an extensive and costly data collection exercise prior to carrying out the major analytical research required to produce such a model. However, the potential benefits of an individual based model in terms of increased sensitivity to need and the possibility of annual update make this an attractive longer-term option. CFRG maintain close links with their equivalent English formula review group and will continue to monitor the progress of this ambitious research project.

Issue – Allocating Funds to Large Scale Facilities

The issue of whether the formula was appropriate in allocating resources to large scale organisations was raised. As one respondent said “...*a weighted capitation formula is not a wholly appropriate system for allocation of resources on an annual basis for services where built infrastructure is the main driver for expenditure. The costs of such services cannot be easily influenced in the short to medium term, without radical impact on services provided. This would include acute hospital infrastructure and major facilities providing mental health and learning disability services.*”

Response – The purpose of the regional capitation formula is to allocate the available resources in a fair, transparent and equitable manner, according to need. The formula is not a cost distribution model. Moving to an allocation method based on facility costs would not promote efficient practices nor would it take into consideration the health needs of the population. All commissioners and providers of services are responsible for ensuring that they provide their services as efficiently as possible to ensure the funds are used optimally.

researchers, CFRG and within the Department before the group were content to proceed to model production stage. Full details are provided in the reports produced as part of the consultation.

2.3 IMPROVEMENTS TO THE ELDERLY FORMULA

“Do you agree that the changes to the Elderly Care Formula make it more reflective of the health and social care needs of the Elderly?”

Of those that responded to the survey	14 agreed,
	0 disagreed
	2 were unsure.

Respondents were on the whole favourable to the improvements being suggested by CFRG for the Elderly formula. It was stated that “...*the case for making the changes has been made with clarity by the review team*“ and that “*significant progress has been made in improving the Elderly formula...*”

Response –The positive response to the changes proposed to the elderly formula is welcomed.

Issue - Regional Tariff or Net Costs.

Of the two unsure respondents, one consultee wondered whether Regional Tariff costs could have been used instead. They said that “...*net costs for Nursing /Residential homes assumes that the level of client contribution will remain constant in relative terms. Could the use of the Regional Tariff rates, as an alternative, be adopted to ensure consistency*”

Response - The use of regional tariff to cost nursing and residential care homes is similar to using the full gross costs actually charged to clients. The

Elderly Care modelling work in respect of this sector was initially carried out on both a net and gross cost basis. However, it soon became apparent that the gross cost versions of the models had inferior explanatory power compared to their net cost equivalents. It is possible that using regional rates, had they been available, may have resulted in better fitting models but this was not an option at that time.

The other main benefit of using a net cost model is it then renders a separate income adjustment unnecessary. It is true that this necessarily assumes a constant future level of client contribution but all of the formulae rely on assumptions with a limited life span. For example, the current pattern of deprivation. This is why there is a need for all of the formulae to be periodically reviewed. CFRG will carefully monitor the entitlement rules governing the various sources of client income - any significant changes may mean that a future re-estimation of the Elderly formula is required earlier than would otherwise normally be the case.

Issue – Clients in Homes outside Board of Residence

It was suggested that CFRG should keep under review the potential impact of residents in Nursing/Residential Homes outside their Board of origin.

Response – Residents in Nursing/Residential Homes outside of their Board of origin are funded by their home Board. This creates difficulties for the Regional Capitation Formula as the timing of the population change then becomes critical. Immediately following a Census, the person will be counted in the population estimates at their new address but, other than that, where they are counted will depend on whether they register with a new GP at their new home. Even in this case, there will be a lag as to when the move is picked up as part of the internal migration figures which are an integral component of the population estimates. There is currently insufficient corroboratory evidence to assess the potential impact of this population flow and

Response - CFRG have previously accepted that, in principle, population projections are the correct population base to use in the allocation formula and are committed to using them once assured of their accuracy. There are concerns that population projections, because they are only produced every two years, are slower to react to changes in fertility, mortality and migration rate trends than the annually produced mid-year estimates. In addition, the recent accession of a number of countries to the E.U. has introduced great variability into the NI migration figures. Because of this, NISRA took a decision not to produce a 2004-based population projection and have only recently released their 2006-based projections. Against this uncertainty, however, must be weighed the fact that mid-year estimates lag two years behind the actual allocation year.

Given the level of concern that this issue raised amongst consultation respondents, a preliminary high-level analysis has been undertaken to investigate, retrospectively, the relative accuracy of mid-year estimates versus population projections in the allocation formula. This work suggests that a further more detailed analysis is now warranted and CFRG will be directed to give this a high priority in their next work programme.

Issue – Migrant Workers and Immigration

The issue of migrant workers was raised as was concern regarding the lack of accurate data available on immigration. A respondent stated that *“Apart from the fact that historical population figures may not adequately reflect the numbers, their need for resources may be relatively high”*. Another respondent highlighted that there was an inevitable time lag as migrants appeared in population estimates through GP lists. They said that as *“many migrant workers require interpreters and have additional needs, their needs for resources may be significantly higher than comparable adults in the indigenous population.”* A counter argument to this raised during consultation

suggested that as economic migrants account for a significant element of population growth and the main driver in the formula is population, resources were moving towards “*mobile, economically active, healthy workers*” instead of to those with “*greatest relative health need*”.

Response –The formula makes an explicit adjustment for Republic of Ireland cross-border workers who are directly factored into the resident NI population on an annual basis. Other migrants are included in the official mid-year estimates, produced by NISRA, using GP registration data as a key source of information. There will clearly be a lag in this information feeding through into the estimates but this is no greater than the lag associated with including the annual births and deaths figures. CFRG will look at the possibility of moving to projections, which will include migration projections, early in their new work programme.

Whilst it is true that migrants may have a younger population profile than the general population, this is taken into account via the application of the age/gender weights in the formula. In other words, a typical migrant will be funded by the formula at a below average rate purely because of their younger age. Should migrants have greater socio-economic related health needs than the average population, then this will be picked up in the modelling as those areas with a high proportion of migrants should also then have higher service utilisation.

There could be a case that migrants cost more to treat than the general population, for the same level of need, due to language difficulties. Departmental figures show that the total NI cost of providing interpretation services came to just over £1.4m in 2007/08. If Boards were to be funded on an actual basis for these costs, rather than via the capitation formula, this would only result in a maximum re-distribution of £375,000. This is not

sufficiently material to warrant a separate adjustment although Boards are free to consider it as a relevant local issue in their own internal equity strategies.

Issue – Patient Registration Data

Currently the formula uses mid year estimates to assess population growth across Northern Ireland. One respondent wondered whether GP patient registration data could be used instead and to what extent list inflation was a problem in Northern Ireland.

Response- This option has been explored by CFRG on a number of occasions in the past. The problem with using GP registrations is that, whilst they are much timelier than mid-year population estimates, they can contain persons who are no longer attending a particular practice. This can occur for a variety of reasons such as when a person moves home but fails to notify their GP or if they have died. In the case of relocation, a person may then register with another GP thus creating a duplicate registration. There can also be a lag before new babies are registered with a GP. As at July 2007, official figures show that there were almost 75000 more persons registered with NI GPs than there were recorded in the corresponding mid-year population estimate. This phenomenon is known as “list inflation”. It can vary across geographical areas and by age group which makes it very problematic in a resource allocation context.

A range of initiatives are being undertaken by Boards to clean GP lists and significant headway has been made. However, latest analysis shows it still remains a significant issue. CFRG will keep this under review - using GP registration data as the population base in the Regional Capitation Formula may become a viable future option when list inflation has been sufficiently reduced across all areas and age groups.

Issue – Short Term Population Movements

The formula should take account of “*a more mobile population, both inwards and outward*”.

Response - The current formula uses the mid year estimate as the base population. The official mid year estimate methodology requires that a person has been resident, or intends to be resident, for a year or more before they can be included in the figures. In theory the GP registered list would pick up in-year population variations more quickly, but this source has its own issues with regard to variable list inflation (see response to Patient Registration data above) and would still only represent a snapshot of the population at a point in time. There does not appear to be a simple solution to this but CFRG will continue to monitor the work that NISRA are taking forward on enumerating short-term migrants.

If, in the future, it proves possible to obtain annual estimates of short-term migration to NI by area, then the option would exist to use this information to supplement the mid-year-estimate for the purposes of resource allocation.

Issue - Increasing Birth Rates

One respondent advised that the formula needed to consider increasing birth rates, increasing age of women giving birth and also the expectations that different types of maternity services will be provided for mothers to be. It was also noted that there was an increase in the numbers of women from ethnic minorities giving birth.

Response – The provision of maternity services within the regional capitation formula is covered specifically by the maternity and child health formula. This includes data on birth rates and mothers age, and is updated annually to reflect current trends. Any births to ethnic mothers who are resident in NI will be included in these figures.

2.5 ACUTE HOSPITAL RESEARCH

“Do you agree with CFRG recommendations that future work in relation to Under/Postgraduate funding and Regional/Specialist Services should be taken forward by DHSSPS and outside the Weighted Capitation Formula?”

Of those that responded to the survey

10 agreed,
4 disagreed
2 were unsure.

CFRG carried out work in relation to costs that are not currently adjusted for in the Regional Capitation Formula to assess whether they were being dealt with in an equitable manner. The areas of work investigated included Medical Teaching and Training Costs, whether the costing mechanisms used for Regional Services were correct and the impact of infrastructure. Of the 4 respondents that disagreed attention was drawn to Regional/Specialist Services.

Issue- Regional/ Specialist Services

Work took place during the Fifth Review to analyse the differential in cost of inpatient and daycase procedures taking place across commissioner boundaries. CFRG recommended that future work in this area should take place outside the formula and that a review of costs should be instigated every few years.

Comments received during the consultation included *“the work by Researchers showed that the current cost recovery systems in the HPSS need to be refined to take account of case mix complexity and that the current systems could leave some Commissioners picking up an unfair share of costs.”* Another respondent highlighted that *“it is important that local populations don’t carry a disproportionate element of the regional/specialist*

cost infrastructure.” Another said “Resources spent on local populations accessing these services should be equitably distributed”

Of the 4 respondents that disagreed to this question in the survey, their focus was that the “*calculation of funding to commissioners should be based on Capitation*”. Examples were given as to why Regional Service allocations needed to remain in the formula. It was highlighted that “*Regional/Specialist services can change over time as evidenced by the decentralisation of Renal Dialysis and Trauma and Orthopaedics in recent years.*”

Response- The Department agrees that it is important for the calculation of Regional Services funds to remain within the Capitation Formula to ensure that allocations are reflective of population demographics and changes in demand. However it also acknowledges that there is a requirement to ensure that the costs recovered by commissioners for the Regional Services being delivered are reflective of the costs of those services. Thus, while the Department agrees that allocations for Regional Services should be made on a Capitation basis, it is also important that financial analysis of the costs happens outside the formula to reassure commissioners of the integrity of the costing mechanisms.

Issue- Undergraduate/ Postgraduate Training

The Department allocates funds directly to cover the costs of Undergraduate/ Post Graduate Training. The Fifth Review of the Formula investigated the equitable distribution of these funds. CFRG recommended that the Department should undertake further work in relation to how SUMDE (Supplement for Undergraduate Medical & Dental Education) is allocated. CFRG acknowledged that any future work in relation to NIMDTA (Northern Ireland Medical Dental Training Agency) funding should await completion of the Tooke Review into Modernising Medical Careers.

Comments received during the consultation agreed that this area of funding was “*best left outside the formula*”, that “*...further work is required to develop an alternative and equitable approach...*” and “*Future work...must include consideration of the associated indirect infrastructure costs which have not been identified in work to date*”. It was also noted, in relation to Postgraduate training, that “*shorter more intensive training periods may well alter (the) balance*”

Response- The Department has initiated a review into SUMDE funding and is expected to consult on the findings and recommendations in the near future. Regarding Postgraduate training and NIMDTA allocations the Department agrees with the CFRG recommendation that work should complete on the Tooke Review before any additional assessment takes place.

2.6 ANTI-POVERTY AND EQUALITY ISSUES

“Do you agree that the Equality Impact Assessment and Anti Poverty Strategy Chapters show that the formula provides a fair allocation of resources to equality groups and those in need?”

Of those that responded to the survey	12 agreed, 0 disagreed 4 were unsure
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One respondent said that “*These show that the formula seeks to provide a fair allocation. Whether or not it succeeds will only be determined in the fullness of time*”. A number of issues were raised in relation to this area and these are discussed below.

Issue – Assessing Additional Need and Formula Weightings

A theme in a number of responses related to the way the formula assessed socio economic factors. Some respondents felt that the formula was not doing enough to target funds at the most deprived areas and that “... *consideration should be given to targeting a greater proportion of resource towards communities of high health and social care needs and less towards population count.*” It was further suggested that acute allocations for the most deprived areas should be increased by “... *10-15% using this additional funding to introduce pilot projects aimed at reducing access barriers*” that exist for people living in these areas. Questions were raised regarding the “*fairness of the formula, particularly towards the disabled and elderly and their care needs above the general needs of the population.*”

Response – The Regional Capitation Formula is based on the principal of “equal resource for equal need”. The correct balance between population size, age/gender related need and socio-economic related need is determined solely by the statistical modelling process - to artificially alter this balance post-hoc would represent a move away from the current evidence based approach to formula development. Furthermore, to arbitrarily give more weight to, say, socio-economic need at the expense of age-related need would suggest that this type of need is somehow more important. This is not the case – need is need irrespective of the underlying cause. An additional skewing of resource away from the elderly population to address socio-economic need in the absence of supporting evidence could well fall foul of existing equality legislation.

An additional benefit of the inter-related nature of the various adjustments is that any potential deficiency in one will be self-corrected by another. For example, if the age/gender adjustment did not provide sufficient resource in disadvantaged areas to cover the high costs associated with early mortality,

then this residual need will instead be picked up and compensated for in the additional needs modelling.

Whilst it is not always appropriate to compare the re-distributive impact of the revised formula with the previous version, as we have no way of knowing what the true level of need is, it can still provide useful insights. Six graphs in Appendix 2 compare the redistributive impact of the old and new Acute and Elderly formulae across the entire deprivation range. Deprivation is split into 10% deprivation bandings known as deciles. It is clear from this analysis, that the 'additional needs' component of each new formula skews more money into the most deprived areas than the older versions which they are replacing. The new age-gender adjustments, on the other hand, skew more resource into the most affluent 10% of areas. This properly reflects their more elderly population profile and the new research evidence showing that elderly costs of care have continued to increase relative to the young. Overall, however, there is still a redistribution of resource from affluent to deprived areas resulting from using the new formula. This reflects an increased sensitivity to socio-economic need apparent in the new models and is re-assuring given the improvements which were made to data sources and modelling methodologies in this latest research.

It is also known that the infirm and disabled are disproportionately represented in the most disadvantaged areas, so they too should benefit from the additional skewing implied by the new formulae.

At a commissioner level it is therefore the unique mix of affluent and deprived areas, and young and old populations, that will influence whether they gain or lose funds for socio economic and age related need. (see Appendix 3).

Issue – Tackling Health Inequalities

Following on from the theme above some respondents suggested that it was *“...not evident from the information provided that the consequences of increasing health inequalities and social deprivation are adequately reflected”* in the formula. Another consultee said that *“...the healthcare needs of some people in deprived areas are going unmet - and that the inequalities gap is growing”*

Response - The current formula can go some way to helping address health inequalities by ensuring that resources are accurately skewed to the neediest areas. In fact, the formula generally predicts a higher level of resource need for such areas than their historic service utilisation levels would otherwise suggest. However, there is a view that it is not technically possible, within a single formula approach, to fully meet the twin objectives of (i) ensuring equal resource for equal need and (ii) providing sufficient resource to eradicate health inequalities.

England is currently the only UK country to have a separate additional health inequalities formula as part of their allocation process. This involves allocating a ministerially determined pot of money using an area's 'Healthy Life Expectancy' (HLE) as the relevant allocation measure. This issue will be considered further by the Department.

It should be noted that commissioners are currently encouraged to use their local knowledge and if they wish to target a greater proportion of their allocated funds to a deprived locality than the formula indicates, then they have the freedom to this. However, whilst such local insight is essential, it must be underpinned by a robust equity strategy that ensures that the needs of populations in other areas are not adversely impacted upon.

The formula can only identify “needy” areas and include their fair share of resource within the overall commissioner allocation. Commissioners have a responsibility to ensure that the funds are spent in a way that is effective in terms of providing access to the most disadvantaged. Failure to do this will result in inequalities remaining or even widening irrespective of how much money is skewed for need.

Issue – Unmet Need

One respondent suggested that the “...modelling draws a blank in this area”. Another that “the proposed update to the RCF will in fact skew resources away from the most disadvantaged areas”

Response - The issue of unmet need relates to the possibility that persons may, for whatever reason, fail to use services fully in line with their needs. Previous research suggests this may be a particular problem in the more disadvantaged areas and, if present and uncorrected, could lead to final allocation models not allocating sufficient resource to those areas.

CFRG takes this issue very seriously and required the researchers to thoroughly test final models for any sign of a “short-fall” in need in the 10% most deprived areas as measured by the Noble multiple deprivation measure. In parallel Departmental statisticians ran their own tests, informed by academic peer review, to similarly test for possible unmet need. All of the testing was carried out in line with the original Deloitte and Touche¹ methodology who, whilst identifying possible unmet need in the original acute model, recommended that no change should be made at that time due to the model being so dated and due for review. Despite extensive testing of the new models no clear evidence was found that unmet need is present to any significant extent.

¹ See Inequalities in Health and Social Care Use : The Implications for Resource Allocation in the HPSS, Deloitte & Touche, February 2003

In order to address concerns expressed by respondents regarding unmet need, further testing was conducted. Originally testing had taken place at the 10% cut-off point. Further testing was conducted across a longer range including down to the 40% most deprived areas. This additional testing did not yield any further evidence that unmet need was an issue. However CFRG remain open and committed to the concept of unmet need and will continue to test for it in future research.

Issue – Assessing the Implications on Equality Groups

One respondent suggested that *“until each Board receives an equitable share of resources available, there is the potential that some groups could be disadvantaged”*, the inference being that by not allocating full fair shares individuals in underfunded Boards may not receive the service required to meet their needs. Another respondent commented that *“it would have been more useful if the implications for individuals, groups and Boards were made available in terms of results and comparisons against previous results.”* and by another that *“the impact of the Fifth Report updates should be assessed in comparison to the RCF as it currently operates”*

Response – The speed at which commissioners are moved toward their fair shares is a matter for the Department and was outwith the scope of the consultation. The Department must ensure that changes are introduced in a phased manner in order to not destabilise services which would also adversely impact across equality groups. The current implementation plan aims to move all commissioners to within 1% of their fair share by 2010/11. (Further discussion on implementation is included from page 30)

A comparison of the new formula versus the current version for the purposes of assessing the impact on equality groups is not considered helpful. This is because the correct direction of change from the current formula is not known. For example, if the new formula was shown to re-distribute resources away

from elderly areas towards areas with younger populations, this may simply reflect that the current formula had overcompensated for age. What we do know, however, is how a needs-based formula should skew resources compared to allocating on a crude unweighted population basis, i.e. elderly areas, areas with high levels of socio-economic deprivation, areas with high illness rates, should all gain as a result of the formula application. A comparison with the crude population, whilst not ideal, provides the only meaningful basis with which to assess the equality impacts of the revised formula.

2.7 OTHER AREAS OF DISCUSSION

2.7.1 Statistical Issues

Issue – Age of Data used in Model Production.

A number of respondents expressed the opinion that the data used for modelling was out of date with them stating that “*the models will already be outdated, when applied in 2009/10*”. This is because they are “*...based on relatively out of date information i.e. 2003/2004 activity data and 2001 Census data*”. Another respondent drew attention to specific data sets and said “*Some of the data is significantly out of date, particularly the cancer statistics*”

Response – It is inevitable in this type of retrospective analysis that there will always be a lag between the period to which the historic service utilisation data relate, and on which the allocation models are built, and the year for which we are allocating resources. In the current research project this has been more protracted because of the extensive quality assurance which has been built into every step of the process – from data collection/validation by the Information and Finance sub-groups through to independent replication of

final research models and peer review. This was designed to ensure that final models are robust and fit for purpose.

What is important for the research is that the utilisation data and the needs/supply indicators are as closely matched in time as possible. This allows the relationship between them to be properly determined. It is acknowledged that the Census data predates the utilisation data by a few years but the researchers did not wish to discard such a rich data source. This is considered acceptable as area changes in Census variables such as socio-economic group, educational attainment, housing tenure etc are usually quite gradual. The majority of the other needs/supply data, derived from administrative systems (such as social security benefit rates) were largely from the same time period as the utilisation data. The assumption is then made that the established relationship between need and its determinants, which the modelling ensures is independent of how services happen to be configured, will persist across time. It is acknowledged, however, that the formulae do need to be periodically re-estimated and CFRG keep the relevance of all of the PoC models under review.

Issue – Quality and Outcomes Framework Data

Some respondents suggested that consideration should be given to the use of Quality and Outcomes Framework (QOF) data within the formula. QOF information is an evidence based system used to remunerate General Practises for providing good quality care. It was suggested that the it was *“more reliable and up to date than some of the variables proposed in the formula e.g. self assessed illness measures in the 2001 Census”*

Response – The inclusion of QOF data was investigated during the initial scoping phase of the research. However, at the time this was still a relatively new data source and the trends recorded in the data did not appear to

correlate with any of the recognised indicators of deprivation. As such the value of including the QOF data at that time was unclear. With the subsequent refinements to the QOF system then, and the further bedding down of the system, the inclusion of these data will again be reconsidered by CFRG in future research projects.

Issue - Will the formula be robust in allocating funds for new Health and Social Care structures?

Response - From April 2009 a Regional Health and Social Care Board (RHSCB), a Regional Agency for Promoting Health and Social Well-being (RAPHSW) and 5 Local Commissioning Groups (LCG) will replace the existing four Health and Social Services Boards. Allocations will be made to the LCGs who will be responsible for commissioning services. As the Regional Capitation Formula is made up from small area units, it is flexible and can be built up to whatever commissioning structure is put in place. The margins of error associated with all of the PoC modelled formulae have been investigated by CFRG and they are content that the combined allocations are very robust at both Board and LCG level.

For the amendments made to the Acute and Elderly formulae it was found that 95% of the time, for a population of 300,000, the models correctly predicted fair shares to within a range of -3.6% to +3.9% of the actual formula estimate. This means that on a formula predicted fair share of 18%, the “true” fair share will lie within the range of 17.4% - 18.7%. This was found to be an acceptable level of statistical accuracy by CFRG, and in line with other resource allocation formulas.

Previous testing undertaken by CFRG emphasised that the formula was statistically robust for populations of over 250,000 people. The 2007 Mid Year

Estimate shows that the new LCG structures populations range from 294,572 to 447,978.

Issue – Dual Homeowners

The issue of dual homeowners was raised in the consultation. Currently the formula operates on the basis of primary address yet there may be instances where people have a secondary home in another Board. The formula does not provide funding to the secondary residence.

Response – The mid year estimates that feed into the Regional Formula are based on the primary place of residence. It is felt that this is the correct address for the purposes of allocating resources as it is unlikely that an individual treated as a hospital inpatient would provide their holiday home address as their main place of residence. This means that it will be the primary Board of residence which will be responsible for funding the care and should be compensated via the formula. The exception to this is A&E funding where the host Board pays for the care. The funding of A&E is dealt with on page 32 of this report.

Issue –Does the Formula allocate funds for localised issues?

One respondent stated that *“...the formula does not adequately allow for localised drug addictions issues and the associated additional expenditure this attracts.”* Does the formula take into consideration localised health issues?

Response – The Regional Formula does not directly allocate funds for specific localised issues. It is a regional model based on regional need. However if patterns of service use caused by a localised issue are present in the dataset used during modelling, then this usage will be picked up and influence the model produced.

It should be noted however that if the additional health and social care need associated with the localised issue is relatively small, then it may not be strong enough to influence the direction of the formula. As such it is essential that commissioners use their own knowledge and understanding of local service provision and health need to direct resources towards those areas that need them the most.

2.7.2 – Financial Issues

Issue - Implementation of Fair Shares

The Capitation Formula calculates how funds should be allocated to Commissioners on a fair share basis. DHSSPS then decides on the most appropriate levels of funding taking into consideration the impact that changing allocations will have. A number of respondents suggested that DHSSPS should “...*implement the transfer of funding identified in this report between HSS Board areas as quickly as possible in order to address historic funding deficits*”. Another respondent commented that “...*HPSS funding allocations should be brought in line with fair share allocations.*”

Response - Ensuring services are not destabilised is a key consideration for the Department when deciding on how funds should be allocated. Large movement of funding between Commissioners could disrupt the services provided to patients.

An immediate movement to fair shares would not only place undue stress on services currently reliant upon the funds in over funded localities, it could also create issues for those areas currently under funded. Whilst these areas would receive more funds to commission services, it could be argued that an immediate increase in funding, without proper planning and service delivery mechanisms in place, could result in the inappropriate spending of public

funds. As such a transitional movement towards fair shares is the approach adopted by the Department.

However, the Department remains committed that allocations should move towards fair share as assessed by the formula and a challenging target has been set that by 2010/11 all Commissioners will be within 1% of their target fair share.

Issue – Centrally Funded Services and their Impact on Fair Shares

Centrally Funded Services refers to monies allocated by the Department. Included within these funds are the payments for Supplement for Undergraduate Medical & Dental Education (SUMDE) and Northern Ireland Medical Dental Training Agency (NIMDTA). A number of respondents suggested that consideration should be given to these additional funds when assessing fair shares for commissioners.

Response – Funds allocated for SUMDE and NIMDTA amounted to £156m in 2008/09. The Department is currently investigating the method of allocation for these funds. However because these funds are used for training doctors it is not appropriate to use them in an assessment of over/under funding.

Issue – Activity Based Funding (ABF) Regime

The formula needs to be adaptable to work with the potential adoption of an activity based funding regime

Response- Activity Based Funding is a tool that encourages appropriate setting of activity levels at the contracting stage between Commissioners and Trusts. In essence a standard cost is set for delivering a specific service for all providers across Northern Ireland. Those providers whose costs are more expensive than the standard cost set would therefore have to deliver services

at a lower cost. Preparatory work is taking place in this arena involving the Department, Health Boards and Trusts but no firm proposals are in place.

The Capitation Formula is separate from ABF as it is about directing resources to meet the needs the population. To adjust the formula for any costing pressures emerging from ABF would be inappropriate. It is up to Commissioners to ensure that resources are spent in the most cost effective manner to meet their patients' needs.

Issue – Accident and Emergency Services

It was suggested that an Accident and Emergency adjustment should be incorporated into the formula. Currently *“HSS Boards are required to carry the full costs of the provision of A&E facilities within their geographic area irrespective of the Board of residence of patients presenting”*.

Response – Currently the costs of providing Accident and Emergency services are incurred by the Board hosting the Accident and Emergency facility and not the Health Board in which the patient resides. This is under review as part of work emanating from the Review of Public Administration and the movement to a single Regional Health and Social Care Board. A decision will be taken on the future policy treatment of A&E funding by the Department on the basis of the evidence currently being examined.

Issue – Development of a Regional Capitation Implementation Strategy

There should be *“....a regional capitation implementation strategy supported by local equity strategies to address equity gaps in line with confidence intervals and risk parameters identified by the Capitation Formula Group”*

Response – The development of Commissioner equity strategies is an important aspect of ensuring that resources are targeted towards those that need them most and one the Department fully supports. However such a

process can not be totally reliant on the formula. As discussed on pages 28 to 29 the robustness of the model is strongest for larger population sizes. A degree of uncertainty exists in relation to the sensitivity of the formula at small area/population level. As such Commissioners need to use their local knowledge to ensure that the allocation they receive is targeted at those areas most in need. This process will take place in conjunction with the Department and be informed by the Regional Capitation Formula.

Issue – Consultation on Funding Implementation

“The consultation should be on the funding decisions undertaken as a result of the formula, not the statistical model itself”.

Response – The consultation was on the methodologies on which the Regional Formula is based and whether these produce a formula that is robust and fit for purpose. It was not on funding decisions taken as a result of the formula. However the process of deciding financial budgets should not been seen as excluding key stakeholders. Engagement on a wide range of financial issues takes place on a daily basis with Senior Finance Officials in Trusts and Boards through a variety of different forums. This engagement, alongside the fair shares produced by the formula, aids the Departments and Minister’s assessment on the appropriate level of funding for Commissioners.

A key aspect of the formula is that it changes with population needs. As such there will be areas that gain funding as their needs increase and others that lose funding as populations move away. This ensures that the formula and funds flowing through the system meet patient demands.

2.7.3 Wider Health Issues

In a number of instances questions were raised outside the scope of the Capitation Consultation. These issues have been forwarded to the relevant policy branch. Answers to a number of questions have been listed below.

Issue – How does the formula tackle segregation, sectarianism and help to deliver sustainable public services?

Some respondents raised issues regarding the formulas' role in relation to wider government responsibilities.

Response – Transparent and clear decision making regarding the appropriate use of government funds has an important role to play in promoting inclusion and mutual trust across all communities in Northern Ireland. The Capitation Formula is a key aspect of this for DHSSPS. It ensures that funding decisions are taken on the basis of equal resource for equal need. The formula operates on a statistical basis and does not discriminate against groups or communities. It is impartial.

The formula also has a key role in ensuring that Health and Social Care Services are fit for purpose and meet the changing needs and expectations of the population. As a result the formula is not static. In a world of finite expenditure it is important that resources are delivered to those residents that need them most. The key driver in the formula is therefore population allowing the formula to evolve with the moving demographic structure of Northern Ireland. This ensures that resources are directed in line with service delivery needs. Commissioners of services have the power to plan service developments confident that the Capitation Formula will direct funds in line with population ensuring that sustainable forward looking services can be developed and maintained. The formula is a responsible and robust method of delivering public services.

Issue – Future Constitution of the Capitation Formula Review Group

A number of respondents highlighted the importance of ensuring the constitution of CFRG was correct once structural changes in the Health and Social Care landscape had been finalised. One respondent highlighted that members are currently drawn from DHSSPS and NISRA as well as four Health and Social Services Boards. They felt “...*given the nature and complexity of work involved that such a balance in representation (should be) maintained in any future configuration*”. Another organisation highlighted that “*It is important that future membership of the group has representatives from the LCGs (Local Commissioning Groups)*”

Response – The future constitution of the Capitation Formula Review Group is one element that is being considered as part of the changes that are taking place across the reform of the Health and Social Care sector. The Department is keenly aware that any future group constitution will need to have an appropriate mix to ensure that professional experience and local commissioning understanding is not lost.

2.8 Future Work and Considerations for the Group Moving Forward

Issue – Should work be undertaken on Economies of Scale and the Rurality adjustment as recommended by CFRG?

Of those that responded to the survey in relation to Economies of Scale

14 agreed,

0 disagreed

2 were unsure

Economies of Scale

There was agreement that a review of the Economies of Scale adjustment

should be undertaken. Various reasons were given but at the core of all was concern that the adjustment was not adequately reflecting the picture in the service and required updating. Comments received included “...believe that a review of the Economies of Scale adjustment should be carried out urgently...should then be reviewed regularly (every two years).” Another respondent commented that “...further work (should be taken forward) on the whole area of Economies of Scale so that any adjustment to Capitation funding truly reflects genuine economies/diseconomies factors”. It was also noted that “some local Board populations are therefore bearing higher diseconomies of scale costs in a given financial year than others due to the rate at which DBS (Developing Better Services) is phased in...”

Rurality Adjustment

Respondents noted that the adjustment “...was developed a number of years ago and we support a review/revision of this adjustment”. It was also said that “The rurality adjustment should take into account accessibility of services, the condition of road networks in an area and the speed of travel.”

Response – The Department agree that work should be taken forward on Economies of Scale and the Rurality adjustment during the next review.

Issue – Other Areas for Future Research.

In addition to research recommended by CFRG, respondents suggested that the following areas warranted further investigation in relation to the formula.

- The Physical and Sensory Disability Formula
- The Learning Disability Formula
- Ethnic Minorities

Response- The scope and potential application of these areas of work will be considered by CFRG for inclusion in their next work programme.

3 CONCLUSIONS

The Department received a considerable amount of responses and the majority endorsed the improvements suggested by the Capitation Formula Review Group during their Fifth Review. The Department will implement the new Acute and Elderly formulae and use it to inform the allocation of resources to Commissioners in 2009/10.

Respondents were in agreement that further work should be taken forward in relation to Economies of Scale and Rurality during the next work programme. Other areas of work were suggested and these have been referred to CFRG for their consideration. The Department remains committed to ensuring the Regional Capitation Formula develops and continually improves. It is grateful for the suggestions made.

Some consultees raised concerns regarding the formulas' performance in relation to "unmet need" and whether it targets funds adequately towards deprived areas. The Department welcomed these questions and undertook further statistical analysis. These additional tests verified the appropriateness of the formula in allocating funds.

The public consultation process for the 5th Review of the Capitation Formula Review Group (CFRG) took place from 13 June 2008 to 12 September 2008. Four meetings were held with members of the general public, as follows:

30 th June 2008	Wellington Park Hotel, Belfast
3 rd July 2008	Dungannon Council Buildings
4 th July 2008	St Columb's Park House, Londonderry,
7 th July 2008	Antrim Council Buildings

The following organisations were represented at these meetings:

Advice NI	Royal College of Nursing
Ards Borough Council	South Eastern HSC Trust
Belfast HSC Trust	Southern HSS Board
Belfast Local Commissioning Group	Southern Local Commissioning Group
Children's Law Centre	Western HSC Trust
Coleraine Borough Council	
Eastern Health and Social Services Board	
East Local Commissioning Group	
Fermanagh District Council	
Inner East Local Commissioning Group	
MLA (Office of Sammy Wilson)	
Multiple Sclerosis Society Northern Ireland	
Northern Ireland Local Government Association	
Northern Health and Social Services Council	
North West Community Network	
Northern Health and Social Care Trust	
Playboard	
Queens University – School of Law	

FORMAL CONSULTATION RESPONSES

Formal consultation responses were received from the following organisations and all were considered. 16 respondents completed a questionnaire as part of their response. These were collated and have been presented in the report.

Alliance Party
Ards Borough Council
Ballymena Borough Council
British Medical Association
Belfast Health and Social Care Trust
Belfast Local Commissioning Group
Committee on the Administration of Justice
Disability Action
East Belfast Partnership Health Strategy
Eastern Health and Social Services Board
Evan Bates, Independent Statistician
Inner East Local Commissioning Group
Lisburn City Council
Newry and Mourne District Council
Northern Health and Social Care Trust
Northern Health and Social Services Board
Royal College of Midwives
Royal College Of Nursing
South Eastern Health and Social Care Trust
Southern Health and Social Care Trust
Southern Health and Social Services Board
South Local Commissioning Group
Western Health and Social Care Trust
Western Health and Social Services Board
UNISON

The graphs on the following pages are referred to on page 22 of this report. They were produced in order to satisfy the Department that the formula was correctly skewing funds on the basis of age, need and age/need combined. Consultees had queried whether the formula was adequately capturing the level of need experienced in areas of social deprivation. An analysis was undertaken to assess the sensitivity of the new formula against the old.

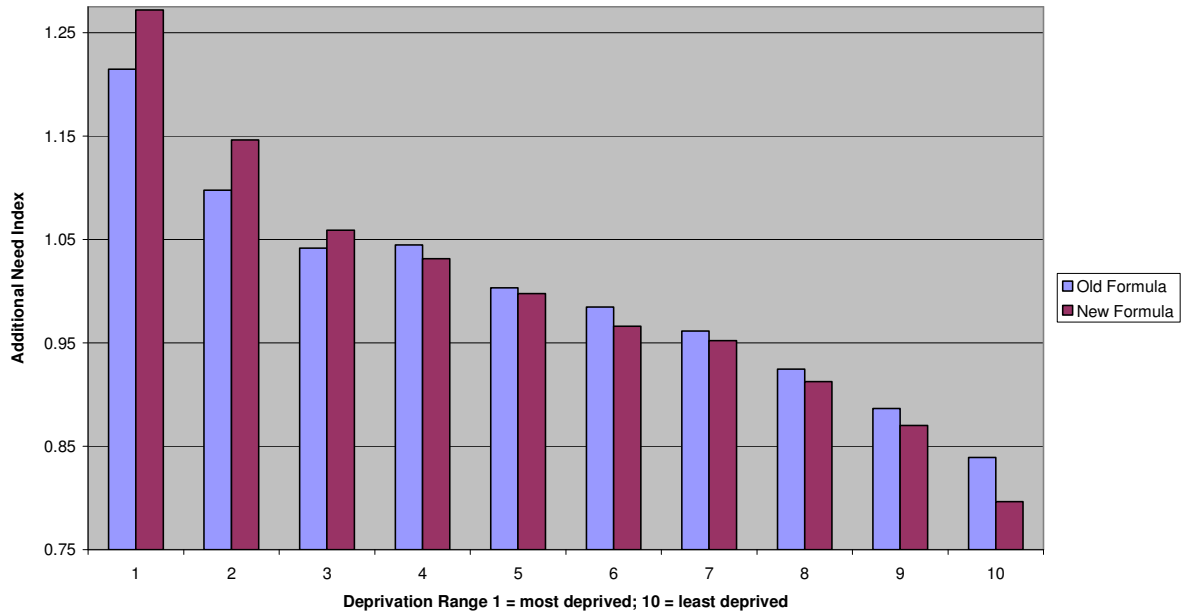
This analysis showed that the new formula has increased its sensitivity to additional need. It can be seen from the graphs that, comparing the new formulae to the versions which they are replacing, the needs indices have increased in respect of the most deprived areas and have decreased in the most affluent areas. This redistributive pattern from affluent to deprived areas is evident in both the new Acute and Elderly Care formulae.

Age related need is highest in the least deprived areas which is a reflection of the fact that such areas generally have a more elderly age profile. The new formulae skews additional age-related resources into the more elderly areas compared to the previous versions. This is justified as the latest research evidence shows that older people now require relatively more resources than younger persons. However, the graphs highlight that the variability of age-related need across the socio-economic spectrum is much more stable than with additional need.

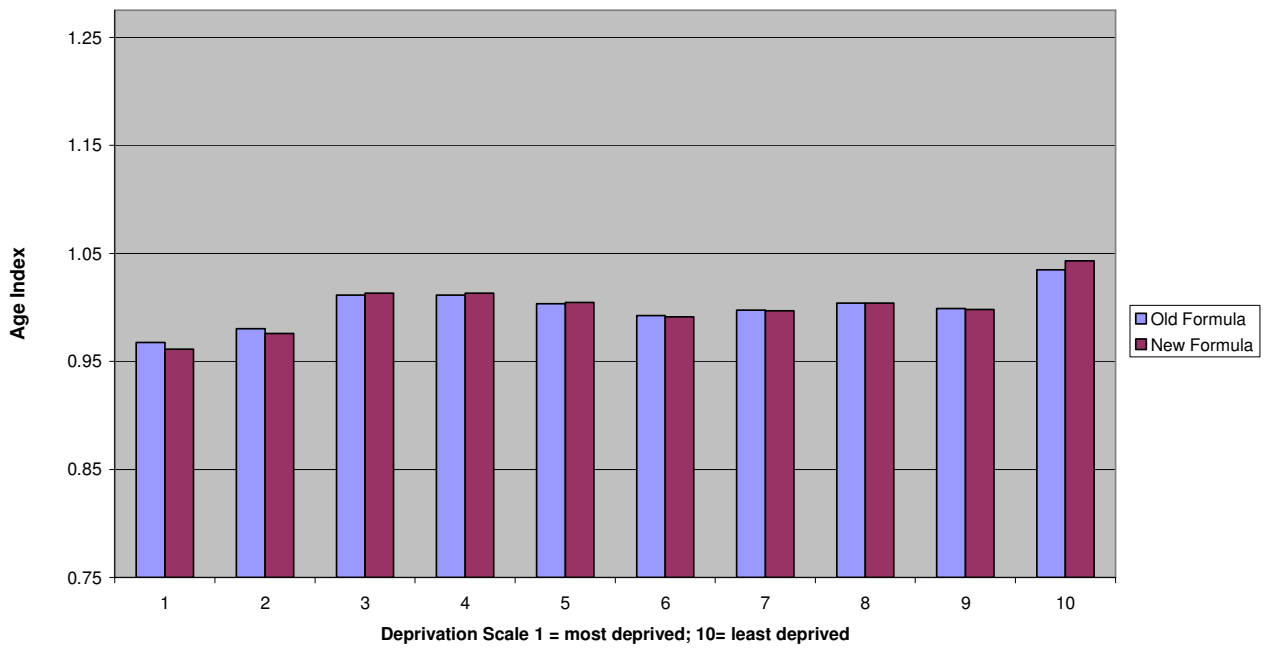
When age and need are combined the graphs produced highlight that the formula still assesses the need for health and social care to be highest in the most deprived areas and least strong in the least deprived areas. Indeed the strength of total need, as assessed by the improved formula, has grown in the most deprived areas.

Acute PoC - Analysis of Additional Need, Age-related Need and Total Need by Deprivation Decile

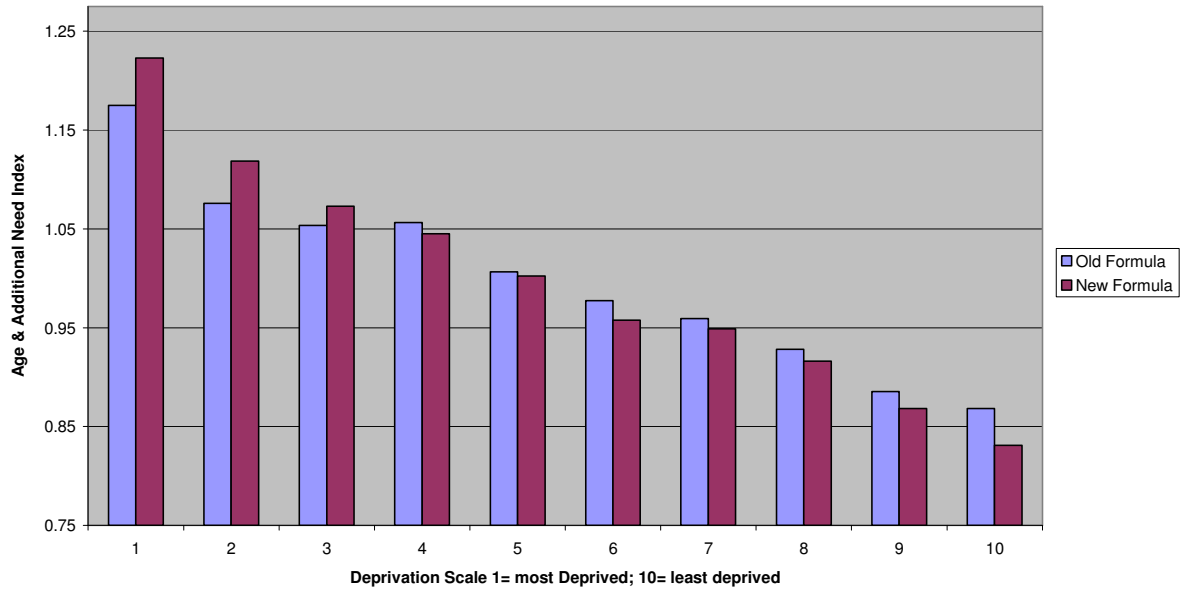
ACUTE SERVICES - ADDITIONAL NEED



ACUTE SERVICES - AGE RELATED NEED

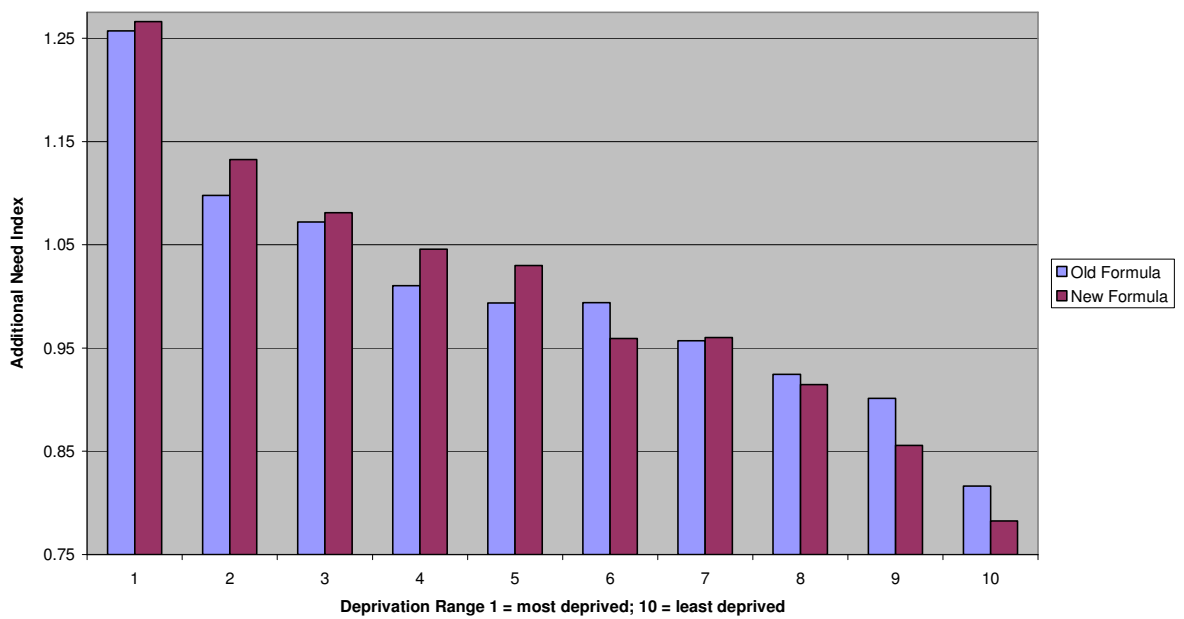


ACUTE SERVICES - AGE AND ADDITIONAL NEED COMBINED

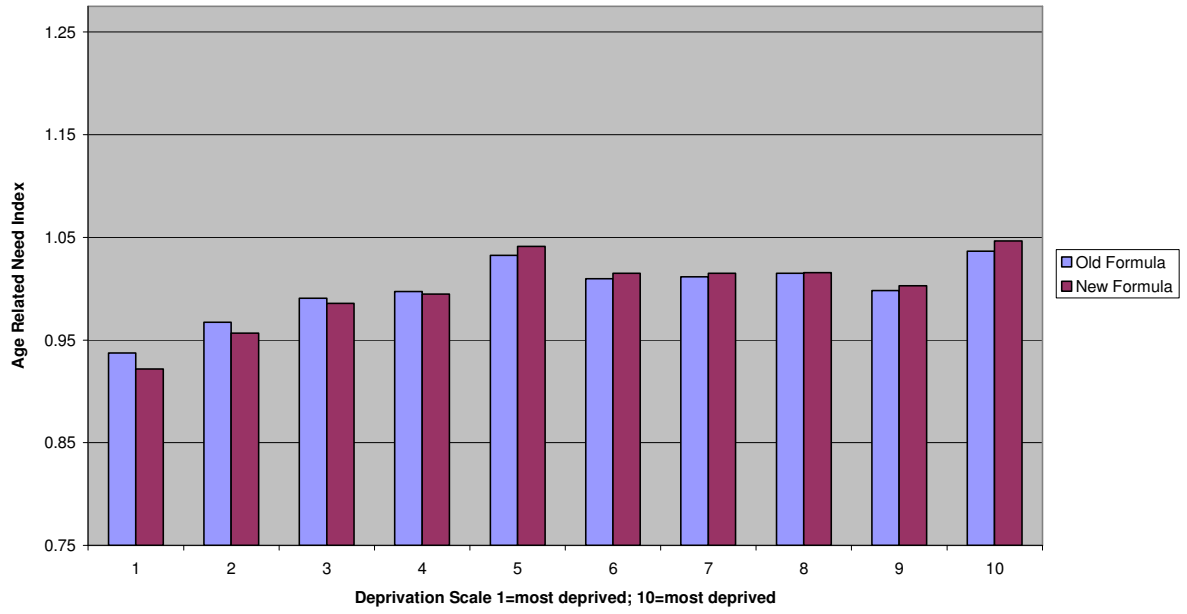


Elderly PoC - Analysis of Additional Need, Age-related Need and Total Need by Deprivation Decile

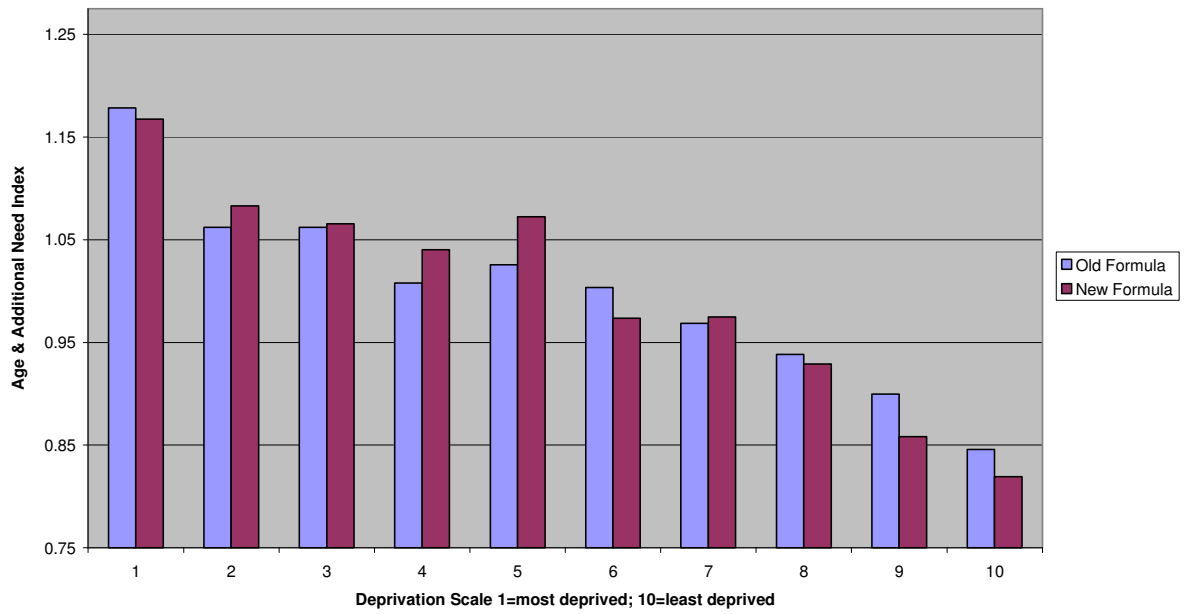
ELDERLY CARE - ADDITIONAL NEED



ELDERLY CARE - AGE RELATED NEED



ELDERLY CARE - AGE AND ADDITIONAL NEED COMBINED



APPENDIX 3 HSS BOARD ANALYSIS OF DEPRIVATION

The table below is based on the Noble Index of Multiple Deprivation. This is an independent data source.

Proportion of Deprivation in HSS Boards

Deprivation Range	EHSSB	NHSSB	SHSSB	WHSSB
Top 30% (Most Deprived)	32%	19%	27%	47%
Middle 40%	29%	47%	54%	45%
Bottom 30% (Least Deprived)	40%	34%	19%	8%
	100%	100%	100%	100%

Figures may not add due to rounding.

The percentages shown reflect how much of each Health Board is made up of areas that are deprived, near to the Northern Ireland average or affluent.