



AUSTRALIAN CAPITAL TERRITORY

**2020 COMMONWEALTH GRANTS COMMISSION
METHODOLOGY REVIEW WORKING PARTY
NON-STATE SERVICES IN THE HEALTH CATEGORY
– *PAPER BY WA TREASURY***

ACT Comments

March 2018

**Chief Minister, Treasury and
Economic Development Directorate**

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Background

The following comments refer to the WA Treasury paper *Non-State Services in the Health Category*, forwarded to States on 20 February 2018. Comments have been requested by 23 March 2018. WA had foreshadowed this work in previous discussions involving CGC staff and States.

CGC staff indicated at the assessment telepresence on 23 October 2017 that work on substitutability in Health services will not be ready for the April 2018 assessment papers and that there will be consultation with States later (3rd quarter) in 2018. At this telepresence the ACT raised the need for expert advice on the clinical equivalence of services in the State and non-State sectors – the CGC said this could come from State Health Departments and they did not propose to use outside consultants as was done in the 2015 Review.

Policy Neutrality of Non-State Sector Activity

The WA paper takes the view that the distribution of non-State sector health activity across States “is, for all practical purposes, policy neutral”. The case outlined for this (p.3) seems reasonable and is in any case fundamental to inclusion of a non-State factor in the Health assessment. Commonwealth policies and programs – Medicare, PBS, PHI subsidy - are obviously a major influence on the size and structure of the non-State sector, and operate under national entitlement rules, so effectively are beyond State policy influence.

Health Provision by Sector in Australia

Table 2 (p.5) shows the high proportion of hospital services provided by States (70%) and, in contrast, the very high proportion of major non-hospital services provided by the non-State sector (88%). Although this is particularly significant for the Community Health category of State expenditure, it also has an impact on Hospital-based expenditure, as there is substitutability between some Hospital-based and Non-Hospital services.

Table 4 (p.6) highlights the well-below average expenditure on Non-State Health services in the ACT (as well as in the NT). The paper states that the variations across States in levels of non-State sector health provision are not significantly explained by the CGC’s cost and demand (use) disabilities. The impact of the cost and use disabilities is shown in Table 5 – as expected, the ACT ranks well below average on these disabilities, due to our high SES, urbanised and relatively young population.

Substitutability and HFE

The paper states that “identifying the substitutable non-State services is a key part of the subtraction model” (p.10). This is equally true of the Direct Model.

The paper quotes the CGC in the 2015 Review Report as saying:

“The subtraction model, conceptually, works with any level of substitutability, and importantly does not require an estimate of the level of substitutability. However, it is more accurate at high levels of substitutability. In this review, we concluded that the level of substitutability is less than was previously assumed. As such, the conceptual strengths of the subtraction model have been mitigated.”

However, the 2010 Review report clearly states (*2010 Review Report* Vol 2, pp.225-6) that the assessment using the Subtraction Model began with “removing from non-State services those types of services not provided by the States”.

It goes on to state that: “whilst we have identified the majority of those non-State expenses, particularly those that are clearly not related to State or State-like services, we cannot be certain that no such services remain in the assessment”. Accordingly, a discount of 12.5% was applied to reduce the size of the non-State expenses included in the Subtraction Model.

This appears to invalidate the claim that the Subtraction Model “does not require an estimate of the level of substitutability”. The critical confusion here appears to be between clinical equivalence of services and availability of services, or what the CGC staff referred to in their telepresence presentation as “potential substitutability” and “actual substitutability”. The initial step in the Subtraction Model process involves a determination (by CGC staff) of potential substitutability. There is then an assumption that **100%** of potentially substitutable services are actually substitutable. This, in our view, is an assumption with no basis in evidence and makes the CGC claim of the model being “more accurate at high levels of substitutability” something of an understatement.

The WA paper goes on to distinguish short-run and long-run elasticities of substitution between non-State and State services, claiming that “typically, the CGC takes a long-run perspective (e.g. assessment of wages and capital)” (p.10). This is an inaccurate statement, from our perspective. For example, the CGC’s assessment approach to capital is driven by relative population growth in the assessment years, applied to the average per capita investment (and depreciation) in those years. It is characterised by the CGC as an “up-front” approach to assessment, as distinct from amortisation of such expenses over the life of assets. There is also no need or justification for the distinction between short-run and long-run – for both potential and actual substitutability what matters is the substitutability in the relevant assessment years.

There is then a discussion of health outcomes and of possible equalisation to a “standard policy” of States choosing unequal outcomes in the long run for otherwise equal individuals (p.11). This consideration is irrelevant to HFE, which has nothing to do with outcomes, rather is focused on equalising the **capacity** of States to provide services. The paper then claims (p.12) that “HFE should equalise States’ capacities to achieve health outcomes for people in like circumstances, regardless of who is providing the service”. This statement appears to imply not only that HFE should equalise outcomes rather than outputs (levels of service), but that it should equalise both State and **non-State** health expenditure. This implication points to a major conceptual problem with the Subtraction Model, namely that it applies an assessment of disabilities not just to State expenditure but to non-State expenditure as well (see *2010 Review Report*, Vol 2, para 82, p.239 – Step Two “allocates the total national expenses across the States in accordance with the socio-demographic profile of their population”), an approach which appears to be unlike anything else the CGC does in any other assessment category.

The paper further states (p.11) that “we are not aware of any evidence of a ‘standard policy’ long-run elasticity of substitution between non-State and State services that is less than 100%”. This is a truism – in the long run any State service **could** be provided by the non-State sector – but again is irrelevant to the equalisation task. In our view, what matters is the existence and availability of substitutable services in the assessment years.

This section of the paper concludes with a discussion of non-State services where there is limited or minimal State involvement (e.g. dental services) and whether these should be within or outside the scope of HFE. Although the ACT does not agree with the emphasis in this part of the paper on outcomes, we support the proposition that non-provision of a service by State governments in one or two States cannot be regarded as standard (average) policy – indeed the paper’s position here is consistent with the redefinition of average policy adopted by the CGC in the 2015 Review.

Comparing the Subtraction and Direct Methods

Subtraction Method

In describing the Subtraction Model the WA paper says that it contains the simplifying assumptions (p.15) that:

- all people have the same health needs and geographic accessibility;
- there are no other cost differences between States;
- State and non-State services have the same cost per service.

It then presents a formula (Formulas 1 & 2) for “assessed” spending need on State services for each State which relates solely to the non-State factor, giving a dollar, or dollar per capita, spending requirement for each State. We note the two versions of the formula don’t include any reference to adjustment for each State according to age, sex, indigeneity, location or SES, which is Step Two of the Subtraction Model calculation (after which assessed non-State expenses are deducted – Steps 3 and 4). Step Two of course reflects the fact that different groups in the population have different health needs. However, the paper subsequently removes these simplifying assumptions (pp.20-21).

Differences in geographic accessibility of non-State services are reflected in Steps 3 and 4 of the calculation, which involve estimates of the State distribution of actual expenditure in the non-State sector.

The assumption of cost equivalence between State and non-State services is notable. This is another oddity of the Subtraction Model’s design, which assumes State and non-State dollars are the same in terms of outputs purchased and assesses the **total** of the two using the standard socio-demographic disabilities, which, as pointed out above, is unlike any other expense assessment.

Direct Method

The paper claims (p.16) that the Direct Method does not provide a conceptual case (or process?) for the choice of indicator of substitutable non-State services. However, this is at least equally true of the Subtraction Model (see discussion under **Substitutability and HFE** above), which used a staff-determined assessment of potential substitutability and a 100% assumption of actual substitutability. In contrast, the Direct Model drew on the advice of independent experts in deciding on indicators of substitutability.

Graphical Comparison of Methods and Relative Sizes of Substitutable State and Non-State Spending

The WA paper (pp.17-19) makes a graphical comparison of the Subtraction and Direct Methods to support a contention that the Direct Method “understates” the impact of the non-State sector on State spending. This occurs whenever S (State spending that is substitutable with non-State spending) is less than Q (non-State spending that is substitutable with State spending) – where S is the variable used in the Direct Method and Q the variable in the Subtraction Method. Conversely, in terms of the paper, where S is greater than Q the Direct Method would “overstate” the impact of the non-State sector on State spending. The paper says that the Direct Method should then scale the variance of assessed shares of non-State substitutable spending by the factor Q/S , which, in our view, is a questionable step. The rationale is explained in the section on ‘Implementation Issues for the Subtraction and Direct Methods’, which follows the current section.

We note a key contention of the paper (p.21) is that a major factor affecting the difference between the Subtraction and Direct Methods is the relative size of Q and S (notations as mentioned above). The implication is that the Subtraction Method is more accurate in this respect. Two questions arise from this: whether the difference is meaningful in practice, and if it is, whether the Subtraction Model approach is really more accurate.

The CGC's view on these issues, as demonstrated in their Assessment Telepresence presentation (23 October 2017), is that substitutability refers to the percentage of State spending that is affected by the non-State sector. The relevant scope for consideration is therefore **State** spending, which is entirely logical and consistent with all other expense assessments. If State spending is considered to be impacted by non-State service provision, the quantum under consideration should be that portion of State spending which is so impacted i.e. could be provided by the non-State sector. This is the approach followed under the Direct Method.

By contrast, the Subtraction Model treats the relevant scope as **non-State** spending, with the quantum under consideration being the portion of non-State spending which is impacted by State service provision i.e. could be provided by the State sector. Not surprisingly, this method produces a higher redistribution impact because the dollar value of (potentially substitutable) non-State community and other health spending is considerably greater than that of State community and other health spending (\$17.3 billion vs \$11.3 billion in 2006-7 – see 2010 Review Report, Vol 2, Table 13-14, p.245). The 2014 Update data quoted in the WA paper (pp.21-22) have an even larger difference, being \$24.4 billion in the non-State sector and \$9.9 billion in the State sector.

The key term here is “could be provided”, which takes into account both potential substitutability (clinically equivalent services are available) and actual substitutability (the degree to which those equivalent services are **actually** available in the jurisdiction in question). The Direct Method makes a deliberate attempt to assess the latter impact as a percentage, because factors such as GPs per head of population and percentage of those GPs who bulk bill, affect the actual availability of the non-State services. By contrast, the Subtraction Method assumes actual availability of 100%.

Applying an adjustment factor, as the Subtraction Method does, to expenditure **other than State government expenditure** is a methodologically questionable approach, diverging from the standard practice of the CGC in every other assessment. Given the considerably greater size of the non-State spending, it clearly results in an overestimate of the impact of the non-State sector. The Direct Method approach is methodologically sounder, in its approach of scaling the impact to the level of State spending, but in the ACT's view **underestimates the impact of the non-State sector because the potential substitutability percentages as applied in the 2015 Review are too low**, particularly in the Emergency Department component.

The ACT's calculations show that the current methodology excludes 57.3% of State expenditure on ED, Non-Admitted and Community Health services from differential assessment of the non-State sector impact (this includes the effect of the 25% discount applied in the Community Health component). Adoption of the potential substitutability percentages proposed by the ACT in its final submission to the 2015 Review would have reduced the level of exclusion to 47.2%, bringing another \$2.1 billion (in 2013-14 terms) into the differential assessment. [See **Appendix A** for details of these calculations.]

Implementation Issues for the Subtraction and Direct Methods

The WA paper claims (p.24) that the Direct Method is not conceptually complete because judgement is required to determine the appropriate indicator of substitutable non-State services.

This ignores the fact that the Subtraction Method also involves judgement (as the paper indicates) about the boundary between (potentially) substitutable and non-substitutable State services, as well as about the actual substitutability of the potentially substitutable services – making an assumption of 100% without an evidential basis for that judgement, whereas the Direct Method involves consideration of relevant evidence for the actual substitutability of different service components. The requirement for judgement to be used is not exceptional in CGC assessments, nor does it undermine the conceptual validity of an assessment approach.

The paper then correctly states that the actual substitutability indicator under the Direct Method needs to be scaled – however, this must be **to the level of State spending** in a service component (i.e. ED, Non-Admitted, Community Health). The proposal in the paper appears to be that the Direct Method should scale the indicator/s **up** to reflect the higher level of **non-State** spending (as indicated by the multiplication factor Q/S, notations as mentioned earlier). If this approach were followed it would, as the paper states, effectively replace the level of State substitutable spending with the level of **non-State** substitutable spending. As we have argued above, this approach is methodologically unsound, and overestimates the impact of the non-State sector. As all of the relevant tables in Chapter 12 of the 2015 Review Report Vol 2 make clear (eg: Table 11, p.194; Table 13, p.199; Table 16, p.205), the substitutability indicator should be and is applied to the levels of **State** spending in each component.

The WA paper goes on (p.24) to criticise the Direct Method's application of indicators of substitutable non-State services that reflect only a subset of such services, and were not (apart from admitted patients) specific to the health components that they were used to assess. This criticism appears to ignore the fundamental concept underlying substitutability, which is that there are clinically equivalent services provided in a different way or by a different sector between which health consumers have a (relatively high) propensity to switch, depending on factors such as availability and price. Consequently, the indicators will not necessarily be "specific to the health components that they were used to assess" because those components reflect differences in service delivery or sector (as distinct from clinical difference). The Direct Method at least makes a reasonable attempt to quantify the level of actual substitutability between such services, whereas the Subtraction Method simply makes an assumption of 100% actual substitutability.

Further mistaken criticisms, in our view, of the judgement involved in the Direct Method are made (p.25), including that the CGC have presumed that only bulk-billed services are substitutable. The reason they adopted this approach is clearly stated by the CGC as avoiding the problem of dealing with an income constraint for services requiring a co-payment from patients, which would involve an excessive level of complexity in the assessment. The bulk billed GP throughput measure was chosen as being the simplest approach and closest to the concept they were trying to measure. The State distribution of these (actually substitutable) services is then applied to **all** of the expenditure considered to be potentially substitutable. Similar methods were used in the Subtraction Method in the 2010 Review in the estimation of State distributions of both Commonwealth and individual out of pocket expenses (i.e. actually substitutable services) –State proportions of MBS rebates were used for this purpose.

The paper also appears to criticise the CGC's judgements in the Direct Method's use of some of the same socio-demographic composition factors across different types of services. However, the Subtraction Method as used in the 2010 Review applied common socio-demographic factors across emergency department and outpatient clinic services using data from the ABS National Health Survey data on the number of visits to non-admitted or other health practitioner services.

Minor Issues

In addition to the above discussion, the ACT identified several minor issues with the WA paper, relating to the community costs of non-State services, the history of substitutability in the health assessment through Reviews and the CGC's rationale for the Direct Method. Comments on these minor issues have been provided at [Appendix B](#).

Conclusions

The WA paper provides a comprehensive and informative analysis and comparison of the Direct and Subtraction Methods for assessing the non-State sector impact on State health expenditure needs.

However, in the ACT's view its presentation is skewed against the Direct Method currently applied by the CGC. In our view the Direct Method is sounder methodologically than the Subtraction Method and adopts more conservative assumptions. We do consider that the estimates of potential substitutability currently used in the Direct Method are too low, and that they should be re-estimated as part of the 2020 Review process. This is the main area of weakness of the Direct Method.

By contrast, although the Subtraction Method appears simpler, it has two major weaknesses:

- the application of an assessed distribution to the total of State and non-State expenditure, as distinct from State expenditure alone; and
- the assumption of 100% actual substitutability for all services considered potentially substitutable.

Overall, the ACT's view is that the Direct Method should be retained in the 2020 Review, but an independent reassessment should be made of the potential substitutability percentages used in this category.

Appendix A – Expenditure Included in Differential Assessment of Non-State Sector Impact

EXPENDITURE INCLUDED IN DIFFERENTIAL ASSESSMENT OF NON-STATE SECTOR IMPACT

Direct Method - Current CGC Approach (2013-14 Expenditure)

<u>Service Component</u>	<u>Total \$ x Adjustments</u>	<u>Substitutable \$</u>
Emergency Department	\$4,089m x 15% substitutable	\$ 613m
Non-Admitted	\$4,089m x 40% substitutable	\$1,635m
Community Health	\$12,765m x 70% substitutable X 75% (net of discount)	\$6,702m
Total	\$20,943m	\$8,950m
Substitutable (Included)	8,950/20,943	42.7%
Non-Substitutable (Excluded)	(20,943-8,950)/20,943	57.3%

Direct Method – Alternative ACT Approach (2013-14 Expenditure)

<u>Service Component</u>	<u>Total \$ x Adjustments</u>	<u>Substitutable \$</u>
Emergency Department	\$4,089m x 45% substitutable	\$1,840m
Non-Admitted	\$4,089m x 50% substitutable	\$2,044m
Community Health	\$12,765m x 75% substitutable X 75% (net of discount)	\$7,180m
Total	\$20,943m	\$11,064m
Substitutable (Included)	11,064/20,943	52.8%
Non-Substitutable (Excluded)	(20,943-11,064)/20,943	47.2%

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Appendix B – Minor Issues

HFE and Costs Borne by the Community

The paper asks (p.3) whether costs borne by the community for the receipt of non-State sector services (beyond what is covered by Commonwealth subsidies) are relevant to HFE? It is assumed this refers to out of pocket payments (including private insurance premiums) by individuals. The answer is clearly no, as HFE only aims to equalise State expenditures.

Review History

The paper claims (p.8) that the 2015 Review assessed non-State sector for Admitted Patients using the Subtraction Method. This is not our understanding – the method used was the same as that used for the ED, Non-Admitted and Community Health components of the assessment. However, the reference in the WA paper is made in the section relating to the 2010 Review (though in that Review assessment of the non-State impact on Admitted Patient services did not use the Subtraction Method either).

In relation to the 2015 Review, the paper claims that:

“Substitutable spending for admitted patients was allocated in proportion to an expected distribution of private patients (allowing for socio-demographic characteristics including remoteness). This allocation was then subtracted from the actual distribution of private patients”.

This description is, strictly speaking, back to front. The actual distribution of expenses (as measured by the actual level of privately insured patients in each State) is subtracted from the assessed (expected) distribution of private patient expenses, adjusted for socio-demographic characteristics.

Evaluation of the CGC’s Rationale for Adopting the Direct Method

The WA paper claims that people who are so income constrained that the State must provide their services “are automatically excluded from the non-State sector data” (p.30). It is not clear which method this comment applies to, but in either case it is not accurate. Income constrained people can and do access private GP and other medical services which are bulk billed, and these services are included in the calculation of potentially substitutable expenditure. Both the current Direct Method and former Subtraction Method use State distributions of Medicare benefits to measure actual substitutability (availability) of services.