

# NSW Health's funding approach

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## equity and efficiency

Often the focus of interest in health funding is on how much money there is available to spend, but of equal importance is how the dollars and cents are shared out across the state and among services.

Over time, places that were once sparsely populated become the centres of thriving new developments with booming populations needing new health services.

Other areas that were once attractive for young families become home to an aging population with new and different demands on their health services.

Health systems need tools to be able to predict and plan for these kinds of changes to ensure communities get comparable access to the health services they need as they evolve.

Health systems also need ways to identify areas that historically have been overlooked and under-funded, and to provide fairly for the additional costs of:

- caring for populations with high needs, such as indigenous Australians
- providing health services to populations that have been under-represented, such as the homeless
- caring for remote and rural populations.

While high cost and specialised services can only be provided efficiently and effectively in a limited number of locations, patients should not have to travel long distances for routine services.

### The NSW approach

In NSW, we have developed highly sophisticated and effective methods in a combination unique to our state to ensure both a fair and efficient distribution of our health dollars.

At a state-wide level, NSW Health's Resource Allocation Unit analyses a complex array of information about the size and characteristics of the state's population – from the rate of tooth decay to premature mortality rates – as well as the operation and use of health services to produce a tool that assesses our future relative health needs. This is known as the Resource Distribution Formula (RDF).

The formula shows what share of the health budget each Area Health Service should receive to ensure funds address need, and to tackle historic inequalities in access to services.

Once the funds reach the Area Health Services, a model known as episode funding is used to make sure they are distributed fairly to the hospitals, health centres and services under Area control.



## A fair go

Before the RDF was introduced, NSW Health services were funded on the basis of “last year’s budget plus a bit for inflation and enhancements”.<sup>1</sup>

There was no coherent means of addressing historical inequalities between regions in NSW, or planning ahead for changes in need. At best the status quo was preserved. At worst, inequalities were growing.

In 1989, NSW introduced a mechanism that would make it possible over time to rectify funding imbalances and redirect funds based on the population’s need for health services and not historical accident.

Initially called the Resource Allocation Formula, this tool has been refined and updated many times to reflect improved data and advances in our understanding of how to best translate this data into a fair reflection of need, and is now called the Resource Distribution Formula.

It guides the allocation of additional funds for the Area Health Services, which are the geographically based statutory management structures that run hospitals and health clinics and a range of other state-funded health services in NSW.

However, it does not apply to the three other key organisations under the administration of NSW Health, the NSW Ambulance Service, the NSW Justice Health Service, or the Children’s Hospital at Westmead, which have separate funding arrangements.

Similar mechanisms to the RDF are used across the world, particularly by state-run bodies that want to deliver equitable shares of health and other public services to their communities. Scotland, Finland, England and Alberta in Canada all have resource allocation formulas for health care.

## How does the RDF work?

The RDF does not calculate how much money should be spent on health in NSW. That figure is a matter for the state government to arrive at as part of its budget process.

Instead, it indicates what share of new monies available for health each Area Health Service should receive based on a number of factors that influence their populations’ need for health services, and the cost of delivering those services.

## Need factors

The most crucial factor, and the starting point for an assessment of population need, is the size of the population in each Area Health Service. At a basic level, the larger the population, the greater the need. The latest RDF uses population projections for 2007.

The second set of factors that are considered are the basic demographic variables: sex, and age. Calculating their combined effect on need is complex as the impact of every five-year age group (from birth to 85-plus) for each sex is analysed, with the impact of older people or women of child-bearing age, for example, being greater.

Thirdly, factors that evidence suggests indicate health needs over and above basic population and demographic characteristics are considered, such as the number of people living alone or the level of homelessness in a community.

Some of these need factors are bundled up into special indexes such as the Health Need Index, and fed into the formula in this form. The Index, for example, indicates the impact of premature mortality, socio-economic status, geographic location, and the proportion of indigenous people in the population on the need for health services.

## Cost factors

The RDF also takes into account cost factors that influence the share of health dollars an Area needs such as the extra cost it shoulders when it provides an expensive specialised service that draws patients from outside its borders. For example, centres for heart and lung transplants.

The additional costs of doing business in rural or remote areas where such things as travel, telephone calls and even staff (who may need additional compensation to work there) are more expensive, is also included where relevant.

## Components

The RDF calculates the share each Area Health Service should receive by breaking down their work into major program components.

It then calculates the impact of relevant need and cost factors on each of these components.

For example, to calculate the share of resources that each Area Health Service should receive for work related to the Population Health Services program, the RDF first looks at the size of an Area’s population, adjusts it according to the Health Needs Index, then weights

<sup>1</sup> Department of Health, 1990, A resource Allocation Formula for the NSW Health System

it for the needs of Aboriginal and homeless people. Finally, it also takes into account the money the Area Health Services spend providing a base for state-wide services.

The exact factors which are used to calculate the RDF and how they are used is the subject of extensive research and rigorous discussion within the Resource Allocation Unit and the Resource Distribution Formula Advisory Committee.

The design of the formula and the elements used are regularly revised and updated with the most recent version, for example, updating population estimates and age/sex components, removing veterans from the formula because of changes to Australian Government funding arrangements and adding a new 'small hospital' cost factor among other refinements.

Data are gathered from varied sources such as the Australian Bureau of Statistics, NSW Health, Area Health Service and hospital records, and specially commissioned research.

### Target share

Ultimately, each Area Health Service's share of all nine components is brought together to give the Area an overall target share of total resources.

The formula is simply a guide, and NSW Health may direct funding according to other priorities, such as emergency department reform or care of patients with chronic illness. Since its development, however, the RDF has more often than not been used to help distribute health dollars.

### Does it work?

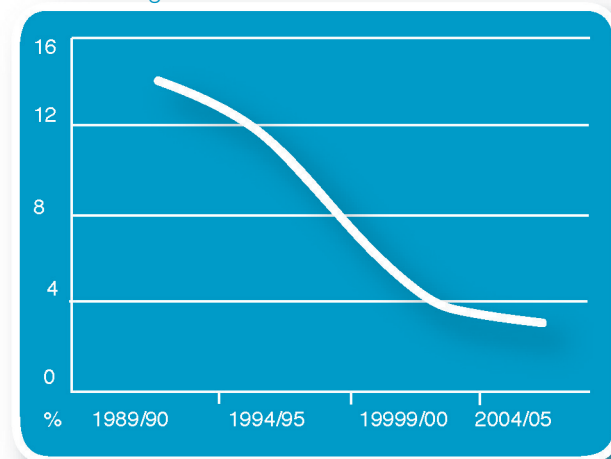
The benefits of the RDF have emerged only over time because recommended shifts in funding are applied solely to growth funding. Thus services do not need to be cut and staff relocated to redistribute funds from a relatively well-resourced area to an area of need.

Instead, the relative disparities in resources between the Area Health Services diminish gradually as the relatively needier Area Health Services receive new resources at a faster rate than its less needy counterpart. No-one goes backwards as a result of the RDF.

The RDF has been an outstanding success. Since its adoption great progress has been made in reducing funding disparities across NSW.

In 1989/1999, Area Health Services in rural NSW were around 18 per cent away from what was then the Resource Allocation Formula target. The average distance from the target in 2003/2004 was around three per cent.

**Figure 1.** Weighted average distance from RDF target for NSW Area Health Services



Historically underfunded population growth areas such as greater western Sydney, the Central Coast, and the North Coast of NSW have also benefited.

It is important to note, however, that because not all money spent on health in NSW flows through the NSW Government, there are limits to how much the RDF can contribute to ensuring equity of access to health care in the state.

Services funded or managed by the NSW Government, such as hospitals and health clinics, account for 35 per cent of the total NSW health sector.

Other major components include GPs, which are directly funded by the Federal Government, and private hospitals and nursing homes funded by the private sector.

The distribution of these services is outside the reach of the NSW Government and so is unaffected by the RDF.

### The Area Health Services

The RDF guides the setting of budgets for the Area Health Services but it does not dictate how they should spend the funds. While it calculates an Area Health Service's share based on its needs for various components of its business such as Outpatient Services or Emergency Department Services, the Area Health Service is free to allocate this money according to its locally defined priorities.

This arrangement ensures that Area Health Services have maximum flexibility to be able to move funds to provide a continuum of care to patients and to fully integrate services.

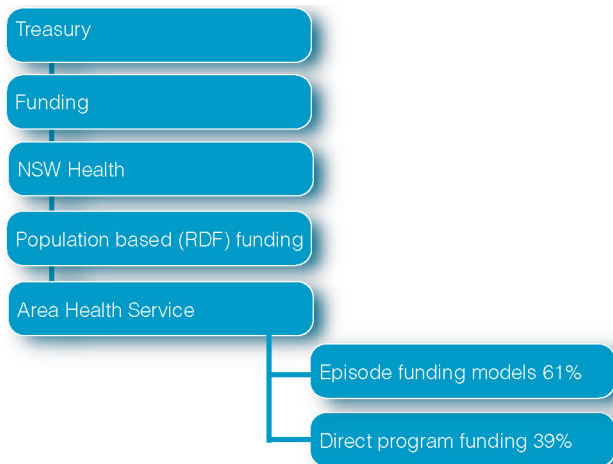


## Episode funding

The Area Health Services use a combination of methods to allocate the funds they receive to run their operations efficiently.

About 60 per cent of their funds are directed using episode funding.

Figure 2. Episode funding



Episode Funding involves funding based on the cost of their expected workload rather than on the size of the previous budget or retrospectively reimbursing for work already performed.

Under episode funding for hospitals, patients are classified into groups that are clinically meaningful and use similar resources during one 'episode' of care.

Funding is then allocated on the number of patients likely to be treated within each group.

Budgets calculated using episode funding are agreed in advance, and do not change throughout the year. However, budgets can vary year to year based on revisions to planned activity targets.

In NSW, special allowances are made for atypical patients who cost more to treat than their group would indicate and which reflects unavoidable costs due to complexity, patient transport and emergency admission status.

The main advantage of episode funding is that it can help reveal instances where the cost of treating patients deviates substantially from the costs incurred in treating similar patients in other hospitals.

This allows managers to analyse why one hospital might be treating a patient type more or less cost effectively than others. Good practice can be copied throughout the system. Inefficiencies can be pinpointed and dealt with.

Extra costs may be due to circumstances other than inefficiency, and episode funding is a tool that allows that to be identified and investigated.

Episode funding is not a cost cutting exercise as funds set aside for each category reflect the cost of clinically sound treatment options not cheapest treatment options.

It is a tool to get the best deal out of our health dollars, and to allow health carers to develop a better awareness of how they treat their patients in relation to their peers and why.

From July 2001, all Area Health Services were asked to use episode funding to allocate budgets to fund acute inpatient admissions. Since then the principles have been extended to Intensive Care Units, Emergency Departments and rehabilitation and extended care services. Eventually models will be developed to cover other types of services, including outpatient and community-based services.

## Conclusion

Using this two-staged approach to allocating resources, NSW is able to meet two key objectives of health funding – ensuring equity of access and efficient use of health dollars.

The Resource Distribution Formula and episode funding help to make sure NSW health care users get access to services that are among the best in the world.

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