

# Population Based Resource Allocation

Facilitating a population-based approach towards health and social care service planning and funding.

Units: Sláintecare – Regional Health Areas; Research Services and Policy

## What is Population-Based Resource Allocation?

Population-Based Resource Allocation (PBRA) is a funding model for health and social care planning that seeks to equitably distribute available healthcare resources according to population need to promote allocative efficiency and equity in both health outcomes and distribution of resources (1). PBRA aims to give each RHA a similar opportunity, in terms of health resources, to respond effectively and efficiently to the needs of its population and meet objectives.

### Sláintecare Policy Context

PBRA forms part of a broader move towards population-based planning under Sláintecare. Set out in the Sláintecare reform programme is the commitment to implement Regional Health Areas (RHAs) to align acute, community, and social care services (1). The implementation of a resource allocation model that allows for equity of access to health services across different geographic areas, taking into account population need, demographics, deprivation and other measures was committed to in the Sláintecare Report (2017) (2). PBRA addresses this commitment.

### Current and Future States

Currently, the public system’s health and social care consists of 7 hospital groups and 9 Community Healthcare Organisations (CHOs). These delivery structures do not overlap in terms of management, geographies, corporate and clinical governance, or budgets (3). Following RHA implementation, planning and delivery of services will be done on a population needs basis by each of the six RHAs within the context of national policies (3). Each RHA will have a single budget, covering hospital, community, and social care services. PBRA will empower RHAs to address their populations’ needs in a more responsive and flexible manner according to the health demands and requirements of their local areas.

### International Examples of PBRA Formulae

A DoH Spending review 2022 reviewed a sample of PBRA formulae with regard to how they are constructed. These were Alberta (Canada), England, New South Wales (Australia), New Zealand, Northern Ireland, and Scotland. It found that while no two PBRA models are the same there are some common variables such as area population, age structure, socioeconomic status used.

	<b>Alberta, Canada: Population Funding Formula</b> <ul style="list-style-type: none"><li>Designed to distribute funding for seven care programmes to nine Regional Health Areas.</li><li>Model consists of:<ul style="list-style-type: none"><li>Population Projections</li><li>Age-sex weights<ul style="list-style-type: none"><li>Five-year age bands except for the youngest under 5</li></ul></li><li>Socioeconomic Status</li><li>Remote RHAs benefit from ‘cost adjustment factor’</li></ul></li></ul>	
	<b>New South Wales, Australia: Resource Distribution Formula</b> <ul style="list-style-type: none"><li>Distribute funding from Department of Health to the region’s 8 Area Health Services.</li><li>Formula:<ul style="list-style-type: none"><li>Population of the area</li><li>Age-sex weightings</li><li>Health Needs Index (HNI) reflecting socioeconomic status and geographic factors</li><li>Weighted Aboriginal and Torres Strait Islanders &amp; Homeless population adjuster</li></ul></li></ul>	
	<b>New Zealand: Population-Based Funding Formula</b> <ul style="list-style-type: none"><li>Funding allocated for 20 District Health Boards<ul style="list-style-type: none"><li>Population of each DBHS is adjusted for:<ul style="list-style-type: none"><li>Age-Sex<ul style="list-style-type: none"><li>Five-year age bands</li></ul></li><li>Socioeconomic Status</li><li>Ethnicity (Maori and Pacific populations)</li><li>Rurality Adjuster</li></ul></li></ul></li></ul>	
	<b>England: Weighted Capitation Formula</b> <ul style="list-style-type: none"><li>Also known as the Fair Shares Formula.</li><li>Formula:<ul style="list-style-type: none"><li>Population base</li><li>Relative need per head of different age-sex groups</li><li>Market Forces Factor – reflect higher input costs in some regions (London)</li></ul></li></ul>	
	<b>Northern Ireland: Capitation Formula</b> <ul style="list-style-type: none"><li>Allocates funding for nine care programmes to five Local Commissioning Groups.</li><li>PBRA formula constructed using:<ul style="list-style-type: none"><li>Population</li><li>Age-Sex Weights<ul style="list-style-type: none"><li>Five-year age bands</li></ul></li><li>Additional Needs – costs arising from geographic conditions</li></ul></li></ul>	
	<b>Scotland: Resource Allocation Formula</b> <ul style="list-style-type: none"><li>Provide funding to 14 NHS Health boards.</li><li>Calculations are based on small-area geographies, referred to as ‘data zones’.</li><li>Formula consists of four components:<ul style="list-style-type: none"><li>Population</li><li>Relative need due to age-sex profiles<ul style="list-style-type: none"><li>Five-year age bands except for the youngest under 5: 0-1, 2-4, 5-9...90+ (in total 20 age bands)</li></ul></li><li>Relative need due to morbidity</li><li>Relative costs of providing services to different geographic areas</li></ul></li></ul>	

### Future Considerations

When implementing PBRA, several factors need to be considered. These include:

- How best to define and capture population need
- How defined population need can inform equitable resource allocation

Implementing PBRA in an Irish context is constrained by the lack of data available. The implementation of the unique health identifier and the Health Information Bill will partly address this gap.

### Next Steps

- Work is ongoing with regard to estimating the relationship between variables and need, utilisation and expenditure in order to inform the development of a PBRA model.
- A Spending Review is planned for Q4 which will map current expenditure by RHA, staff profiles by RHA, and propose a model given data constraints.
- A PBRA model will be used as part of Estimates 2024 to allocate funding by RHA.

References:  
(1) McCarthy, Lindberg and O’Malley, (2022). Spending Review 2022: Towards Population-Based Funding for Health: Evidence Review & Regional Profiles.  
(2) Houses of the Oireachtas Committee on the Future of Healthcare (2017). Sláintecare Report.  
Department of Health (2022). Business Case for the Implementation of Regional Health Areas (RHAs).