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Equity in resource allocation for health: A comparative study of the Ashanti and Northern Regions of Ghana

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Abstract

Debate over the equitable allocation of financial resources in the health sector has focused overwhelmingly on allocation from *national* to *regional* levels. More equitable allocation of such resources *within* regions has been virtually ignored, creating a vacuum in knowledge regarding how resources are allocated intra-regionally and their potential influence on promoting health equity. In this paper, we report an empirical study examining progress towards equity in intra-regional resource allocation in the Ashanti and Northern regions of Ghana. Relative deprivation across the 31 districts of the two regions was measured as a proxy of health needs. The result was used to develop an equity-adjusted share index (EAS) applied as a yardstick against which progress towards equity was assessed. The study found a significant correlation between districts' share of donor pooled funds (DPF) and the EAS in the Northern region for three of the 4 years investigated. In Ashanti region, a worsening trend in relation to equity in DPF allocation was discovered. The proportion of variance in the share of DPF that could be explained by the EAS reduced incrementally from 56% in 1999 to less than 1% in 2002. The study highlights the need for more emphasis on intra-regional equity in resource allocation in Ghana.

Keywords: Equity; Resource allocation; Deprivation; Decision-making; Ghana; Health sector reform

1. Background

Inequitable allocation of resources is a widespread problem in many health systems. Globally, health needs are diverse and require significant financial, human and other resources. These resources are however limited in many countries [33], thereby creating a distributional dilemma for policy-makers. Although the problems posed by resource inadequacy cannot be underestimated, particularly in developing countries, there is a commonly held view that, within countries of similar socio-economic standing, it is not *how much* a country spends, but rather *how* it spends its resources that determines the health status of its population [1]. Evidence from both developed and developing countries suggests that inappropriate allocation of resources contribute greatly to inequities in health. In Australia, for example, although indigenous people have a life expectancy of nearly 20 years shorter than non-indigenous Australians [2,3], Deeble and others found that total expenditures per person for health services for indigenous

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Australians are not much higher than the rest of the population; a ratio of merely 1.22:1 [4]. In South Africans, the poorer health status of black people compared to white South African is believed to be partly the result of the historic imbalances and inequities in the resource allocation system. McIntyre observed that over 60% of health care spending in South Africa at the end of the 20th century was in the private sector [40], the main beneficiaries of which were the minority white population. In Madagascar, Castro-Leal et al. [5] found that the poorest 20% of the population consumes 12% of public spending on health compared to 30% share of the total enjoyed by the richest 20%.

The need to address inequity in health has received increased attention in recent years [6]. This has exposed the mechanisms for allocation of public sector health resources to greater scrutiny. In many countries, policymakers have come under pressure to abandon historical funding models which were widely perceived as inequitable and to develop explicit alternatives that would redress inequities *within* and *between* geographic regions. One issue that remains unresolved in the quest for more equitable resource distribution however, is the appropriate principle or set of principles that should guide resource allocation in order to bridge the existing gaps in equity. One major reason for the little consensus among scholars on this issue results from the diverse ways in which the term 'equity' is interpreted. Whatever interpretation one might have, equity remains a *value-laden* word; choosing between different definitions of equity therefore necessarily involves making *value judgements* [7].

The common interpretations of equity include 'equal expenditure per capita', 'equal inputs per capita', 'equal access for equal needs', 'equal utilisation for equal needs', and 'equal health' [8]. Each of these definitions has its own benefits and difficulties with regards to measurement and operationalisation. 'Equal health', for example, has been widely criticised as being unrealistic, given the many factors that determine health including variations in genetic background and longstanding disparities in access to the wide range of resources which contribute to determining health outcomes. While some authors have argued that the ultimate aim of all definitions of equity is *equality of health* [34], others have suggested other objectives such as equality of access or equal access for equal needs [9]. Access, however, is a multidimensional concept and extremely difficult to measure. Most industrialised nations have adopted the 'equality of access' interpretation in their efforts to achieve fairness in distribution of services and resources [10–12].

Many needs-based models for resource allocation in recent decades were developed on the basis of the equality of access principle. The best documented example is the Resource Allocation Working Party's (RAWP) model developed in England in 1976. The RAWP model sought to allocate National Health Service (NHS) funds between geographical areas to secure equal opportunity of access for equal needs [39]. Countries such as Australia, New Zealand, Canada and South Africa have taken the lead from the RAWP approach and developed their own needs-based systems with a similar aim of improving equity. A needs-based model has been also tried in Zambia [13] while Uganda has implemented a pro-poor resource allocation reform similar to needs-based funding [14]. However, efforts to improve equity through needs-based funding have overwhelmingly focused on broader geographic equity such as inter-regional or provincial equity. Equity at sub-regional levels has been virtually ignored in many countries, creating a knowledge vacuum regarding how resources are re-distributed by regional authorities. This lack of attention to equity at sub-regional levels could have profound implications for reducing general inequities in health.

2. Resource allocation in Ghana

Ghana is located on the west coast of Africa, bordering Togo to the east, Cote d'lvoire to the west, Burkina Faso to the north and the Gulf of Guinea to the south. It is a low-income country with a gross national income (GNI) per capita of US$ 320 [42]. Over 40% of the estimated 20.5 million population lives below the poverty line. The population structure is significantly youthful, with about 40% of the total inhabitants under the age of 15. Rural residents make up around 55% of the total population. The infant mortality rate was about 60 per 1000 in 2003 while the overall life expectancy at birth for 2002 was nearly 58 years. Public sector health expenditure constituted about 2.8% of gross domestic product (GDP) in 2001 [41]. For administrative purposes, Ghana is divided into 10 regions and 110 districts (Fig. 1). The government has in the past few