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Development of Health Services and Planning of Expected Costs

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Abstract

Most of the literature relied on adopting the pricing method of only one of the methods mentioned below, while the researcher adopted through the proposed project integration processes and benefiting from both financial and administrative accounting, costs and microeconomics to reach the optimal pricing method for health services, especially in developing countries. While that methodology provided by the researcher depends on achieving integration between cost accounting, financial accounting and administrative accounting using an important economic principle, which is determining the break-even point for health services, especially in developing societies that have relied on providing these services and contracts for free for society.

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Introduction

Financial accounting within the proposed integration provides information to external clients / individuals / organizations such as banks, government agencies or shareholders in the form of a different type of financial data. While adhering to legal regulations and following generally accepted accounting principles, management accounting also generates information to support decisions internally and to help in effectively managing and controlling the institution. In addition, it facilitates (strategic) planning and performance management, and has a crucial role in pricing services. As a result, management accounting reports can be a future reference because administrative accounting reports are intended for internal use, hence the role of cost accounting that can provide useful information for both financial and management accounting. At the same time, cost accounting may be necessary to monitor costs, cost / pricing decisions, strategic planning, as well as profitability analysis, because it's main goal is to measure the resource consumption associated with providing each service as accurately as possible. The structure of health services in developing countries reflects many contradictions, both in terms of government commitment to providing the service and in terms of the real beneficiaries of these services. There are three main levels, state-owned (nationalized) hospitals, and a national network of general practitioners and health services. Community and household, centrally but managed separately. This initial division of functions has led to differences in perceptions of separate legal organizations, creating problems in the provision of comprehensive and coordinated services.

These included

- 1. Changing trends in health and disease.
- 2. The importance of disease prevention.
- The needs of doctors and hospitals to work together closely and consistently
- The need to provide sufficient care to care for the elderly with the dilemma of being able to meet every request and justification for medical reasons.

The Health and Social Care System Continues to Face Significant Challenges in the Future Including:

 Increased expectations: the public wants more of their public services, to match the choice, customer service and customization they get elsewhere, and they want local services to be more convenient as well.

- Demographic Challenge: With the aging of the population and the increasing numbers of people with long-term conditions including serious disabilities, the demand for health services is increasing.
- A revolution in medical technology: on disease prevention, treatment and management, alleviating suffering and prolonging life expectancy, but this is creating new costs.
- Continuous differences in health and safety: The need to provide the highest possible quality of care everywhere and every time, especially through honest and open information about the results achieved by service providers.

Health Service Planning Concepts

"Health service planning" is a common term. It reflects the growing interest in the importance of health service modeling, a concept that may mean different things to different people, i.e. how to apply the idea of social engineering applied to health care or health service design [1].

"Health Service Planning" is described as follows:

A process that assesses the overall health needs of a geographic area or population and determines how to meet these needs most effectively by allocating current and projected future resources [2].

All planning and concepts aim to identify the needs of the target population and then determine the best means to meet those needs. However, there is an exception within the health sector about the concept of planning process being applied in other areas. This includes:

- Emotional dimensions: Their impact on fluctuations in demand and recognition of the fact that health providers often deal with life and death.
- Complex relationships: The healthcare sector also consists of many separate entities that operate in an almost uncoordinated

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- manner and are often multi-purpose, characterized by a variety of different clients and overlapping functions.
- Financial Characteristics: Here the health sectors differ from other industries where the end user may not make a decision to consume or pay for the service provided to him.
- 4. Diversity of functions: Different entities perform many different functions such as individual entities, for example a hospital, perform multiple functions simultaneously. Jobs can range from providing the health care needs of the population to providing community service, while others see their role as humanitarian or see themselves contributing to public safety.

Health care needs vary according to age structure and health profile of the population. The likelihood of people seeking care is determined by a combination of social and cultural factors and will affect the demand for care. The likelihood of people receiving care is determined by policy decisions and will affect the volume of activity in the health system.

Mechanisms of Planning Activities and Conditions of Compliance

There are many planning terms, which must be understood in order to clarify the relationship between planning methodology. These conditions are summarized in Table 1.

Elements of the Health Service Planning Process

There are many factors that must be contained when initiating a health service planning process, which can be sourced from the community, organization, or through the interests of a particular group or individual. However, any plan for health care services must reflect the impact of political, social and economic considerations within the healthcare environment [3]. Thus, the beginnings of a health service planning procedure should include the following considerations:

1. Health care reforms planned and how decisions are made within the national health sector.

Health care needs change over time depending on the age structure and health profile of the population; such as the growing numbers of older people indicate a concomitant increase in disability and disease, particularly those related to dementia, musculoskeletal, vascular, and sensory heart disease. Health and social systems therefore need to address and care for the growing number of people with these problems.

- 2. Technological advances that constantly challenge the health service. Medical and technological developments are key factors behind health spending and have great potential for improving health outcomes and efficiency.
- Evidence base programs that define quality standards and define services.

The challenge for the planner is to balance both the substantive and technical dimension of planning with the realities of the context in which the planning takes place.

Planning Approach

There are many different ways to plan health services that can range from "problem solving" to "long-term operational plans versus short-term operational plans" and "narrative approaches" that use matrices that offer a nested set of objectives defined in a table format. Plans may also target specific services or institutions or include larger geographical areas [4].

There are two main types of health planning:

- Activity planning: Is concerned with maintaining current positions and setting follow-up and monitoring implementation schedules.
- Ad hoc planning: Concerned with the possibility of change and making decisions on how to use the resources and activities to be used.

Here, the outcome of planning is conditional on the behavior of individuals and groups at all levels of the process.

Terms	Activity
Economic/development planning	National level activity aimed at steering the economic or development policies, primarily though public expenditure or fiscal policies
Strategic plan	Document outlining the direction an organisation is intending to follow, with broad guidance as to the implications for services or action
Business plan	Strategic plans prepared by business organisations setting out their direction, and usually providing income and expenditure projections
Regulatory planning	Activities of State planning bodies that set planning guidelines for private sector activities
Service/programme planning	Planning focusing on the services to be provided. Used to contrast with capital planning (see below)
Capital planning	Planning focusing on the capital developments of an organisation such as its building programme
Project planning	Planning focusing on discrete time-limited activities
Human resource/manpower planning	Plans focusing on the human resource requirements of an organisation or country
Physical plans	Plans relating to construction elements
Operational plans	Activity plans detailing precise timing and mode of implementation
Work plans	Operational plans referring to the activities of a small unit or of an individual
Table1: Planning terms [6].	

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Where the planning system is an empowerment tool, which should facilitate the most effective use of scarce resources available for health care.

Health Planning Dilemma

The history of planning in the health sector remains relatively short and there has generally been no progress or successes. The dilemma that arises from planning needs is often the gap between available resources and health needs, leading to the need to make choices about how to use these resources [6].

The bottom line when implementing or implementing plans is failure to respond appropriately to the real needs of the population. A common example is the imbalance of resources between preventive and curative care, between different social groups, between different regions or geographical areas, between staff salaries and medical supplies, or between different types of staff such as general practitioners. If future planning is to be strengthened, it is important to understand the causes of any of these dilemmas. A variety of reasons can contribute to poor planning processes, including:

Planning is an end in itself, with a real goal, to bring about change - the target within the planning process

- Technical failure to appropriately analyze needs or accurately estimate resources is a key focus for building the right planning
- 2. Implement top-down central plans, without involving both health care providers and communities in decision-making
- 3. Isolate the planning process from other decision-making processes such as budgeting or human resources planning
- 4. Failure to take into account the inherent political nature of the planning process.

The patient primarily leads National Health Service reform processes that utilize available resources as effectively and fairly as possible to promote health, reduce health inequalities and provide the best, safest and most secure health care.

Planning Mechanisms and Techniques

Joint Strategic Needs Assessment: Local authorities and partners produce a joint assessment of strategic needs for community health and well-being. Needs assessment was an essential tool for Commissioners to inform service planning and operational strategies.

The stages in planning preparation include:

- 1. Stakeholder engagement
- 2. Engage with communities
- 3. Suggestions on timing and linkage with other strategic plans
- Develop a basic data set.

To examine all factors that affect the health and well-being of communities, including employment, education, housing and environmental factors. Through cooperation treaties, local authorities can rely on the core dataset, using clearly defined criteria for selecting additional, high-quality, locally relevant information that provides a clear picture of their area.

Planning Health Services

Planning for change and the potential for change inevitably brings opponents and proponents of the proposal. The relationship between planners, policymakers, service managers, communities and other stakeholders in the planning process is critical to successful planning. A large number of health planners are selected from health professions, for example medicine, nursing, and public health, but one of the challenges we face today is not to develop specialized health planners but to expose a wide range of professionals to the importance and concepts of planning so that they can participate in the process. The second challenge is to ensure that planning systems are designed and operated to provide real (but not symbolic) input from communities and users in the planning process [7].

Several techniques are used to assess the importance of stakeholder impact including stakeholder analysis.

What is involved?

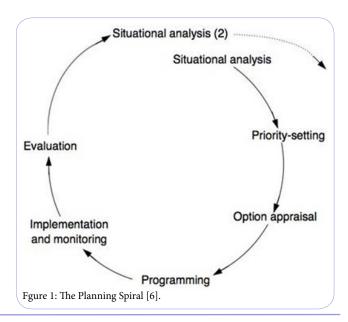
Figure 1 represents a set of cyclical activities that can be found frequently during the planning process. A spiral is a schematic, where the end point of each cycle is the beginning of the next cycle, but at a higher level.

Each stage is briefly described below.

Position Analysis:

This involves assessing the current situation and should include:

- 1. Current and projected demographic characteristics of the population
- Physical and socio-economic characteristics of the region and its infrastructure
- 3. Policy analysis and policy environment including existing health policies
- 4. Analysis of the health needs of the population



Services provided by the non-health sector as well as the health sector, focusing on the facilities provided, their function gaps and service with organizational arrangements.

 Examine the adequacy of resources in service delivery including current efficiency, effectiveness, equity and quality.

The situation analysis needs to cover the entire health sector and all its components.

Define the Priorities

When setting priorities, the set of priorities should be applicable within the social and political climate and in the context of available resources. Therefore, clear criteria should be needed to select priority problems, which reflect the objectives, goals and objectives of the organizations concerned. In some situations, it may be useful first to clarify what is not a priority (for example, where local needs are low, where expectations cannot be met or significant achievements have been made and the needs are now less urgent [8].

Assessment of options: The stage involves the creation and evaluation of various alternative strategies to achieve the set of goals and objectives. Options at this stage may be neglected due to significant resource impacts, political or social inadmissibility, or technical ineffectiveness. The results of this phase will be based on preferred strategies or a combination of approaches that will form part of the plan.

Programming Budget

The Program Budget (PB) is an assessment of past resource allocation in specific programs, with a view to tracking future resource allocation through those programs themselves. In addition, the Marginal Analysis (MA) is an assessment of the added benefits and added costs of the proposed investment (or the lost interest and low costs of a proposed investment [9].

Example: PBMA in eight steps (Brambleby and Fordham):

- 1. Step 1: Choose a set of targeted programs that you work with
- Step 2: Identify current activity and expenditures in those programs
- 3. Step 3: Be creative think about the potential for improvements and linkages in care pathways and patterns within and between programs
- 4. Step 4: Increase the incremental costs and increase the benefits of the improvements considered in Step 3
- 5. Step 5: wide consultation there may be options, trade-offs and value judgments to explain
- 6. Step 6: Decide on change and decision in public
- 7. Step 7: Impact of change this is the essence of management achieve this
- Step 8: Assess your progress Verify that the expected costs, savings and results are already met.

The price is the mixture component that is very sensitive, especially in determining the costs of health services, which leads to revenue, hence the price sensitivity, especially in developing societies, where society practices to receive health services without charge, and the pricing of health services here is based on the necessity of covering the elements of costs, both of which are known as costs Direct or indirect costs. It is also one of the most flexible elements and can be used effectively as a strategic decision-making tool. On the other hand, the market environment determines a framework for the price that a hospital or diagnostic center can pay for its services, the costs determine the minimum. It is in this context that is why understanding costs becomes so important.

Costs as we know, take two forms, fixed and variable. Fixed costs (also known as overheads) are costs that do not differ with the amount or quantity of services sold (or produced). Hospital incurs certain expenses due to rent, salaries, air conditioning, etc., regardless of output. These fixed costs can be divided into two categories: direct fixed cost and indirect fixed cost. This is when estimating the cost of a particular service.

Although marginal analysis is the theoretical basis for pricing in the economy, it is difficult to apply in the real world, especially in health services provided to a developing community, partly due to incomplete information or what is known as the information supported and we mean that information supported by government coverage. As a result, many organizations apply a kind of cost-based pricing policy. Cost-based pricing theories focus on two components of price: (a) related costs and (b) profit margins. The most common cost-based pricing policies are the following:

- 1. Full cost plus pricing
- 2. Rate of return pricing
- 3. Marginal cost plus pricing

Full cost plus prices depend on full cost of absorption. The goal of cost practice is to calculate the total costs of a specific product or service.

After that, the required profit level is added to the total costs to reach a selling price. Profitability levels can be different for different products or services. Although "fair profit rate" is discussed in the literature, there is a relationship between the profit rate (the percentage of increase) and the rate of return, which is determined in part by the price elasticity of demand and price elasticity itself has implications for the short and long term and contributes to directing Company or hospital strategy (healthcare providers). Where Cost Plus pricing was used by about a third of American service providers in the early 1980s [10].

Advantages and Disadvantages

This method is widely used, partly because it is a straightforward, authorizable, and easy to monitor (audit) method, and a disadvantage of this method is that it does not take the volume of demand into account, and prices in this case may simply be the function of costs. Moreover, this may not maximize profits, due in part to the choice of price according to the estimated sustainable volume of services or goods. Moreover, the price calculation may depend on

- The proportions and fairness of the distribution of public expenditures; and
- 2. The accuracy of the estimated sustainable size of services.

Service providers must achieve the same volume of sales as the volume is used to calculate the price so that they can recover all costs and ensure that they are achieving their target profit. Additionally, the full cost plus pricing depends on a long-term time horizon, while many healthcare decisions are applied within a short-term timeframe and have to deal with relatively rapid changes in the healthcare market (such as technological changes).

Pricing yield Rate

The minimum price is calculated using the minimum return on capital figures used. This method was used by organizations in the early 1990s.

Marginal Cost plus Pricing

Calculation is similar to full cost plus pricing,

Instead of adding a percentage to total costs, this method adds a percentage to marginal costs. This method focuses more on the true contribution to total revenue for a specific product or service. One of the advantages of this pricing method is that marginal costs are practically dependent on variable costs, and therefore, analysts do not need to allocate fixed costs, which makes costing easier, faster and less expensive. On the other hand, all fixed costs should be covered, and profits should be generated according to commercial principles. Therefore, marginal cost plus pricing must be used carefully. For example, healthcare providers with standby capacity can use this method to generate additional revenue by targeting a private market segment.

Market Pricing Center

Cost-focused pricing does not adjust price computation according to market forces. Market pricing wants to address this issue. Market-focused price is the unique function of the relevant market. Market prices are more dynamic following the changing demand of the market.

Here are other price strategies

Opportunistic pricing can occur when the price set by the health care provider is less than the target price. This may happen when the company wants to increase sales. The opportunistic price is usually higher than the variable costs, but the profit margin may be different compared to the target price. Target pricing is based on the opposite logic of cost-based pricing. In this case, the target price is determined by service providers (the company) using market research before designing and delivering a new service or product. Then the target costs (standard cost) are calculated by subtracting the required profit margin. The price is usually set at a level that ensures that the organization provides its services above breakeven point.

Conclusion

Methodology provided by the researcher depends on achieving integration between cost accounting, financial accounting and administrative accounting using an important economic principle, which is determining the break-even point for health services, especially in developing societies that have relied on providing these services and contracts for free for society. Financial accounting within

the proposed integration provides information to external clients / individuals / organizations such as banks, government agencies or shareholders in the form of a different type of financial data. While adhering to legal regulations and following generally accepted accounting principles, management accounting also generates information to support decisions internally and to help in effectively managing and controlling the institution. In addition, it facilitates (strategic) planning and performance management, and has a crucial role in pricing services. As a result, management accounting reports can be a future reference because administrative accounting reports are intended for internal use, hence the role of cost accounting that can provide useful information for both financial and management accounting. At the same time, cost accounting may be necessary to monitor costs, cost / pricing decisions, strategic planning, as well as profitability analysis, because it's main goal is to measure the resource consumption associated with providing each service as accurately as possible.

Competing Interests

The author declare that there is no competing interests regarding the publication of this article.

References

- Donabedian A (1988) The quality of care: how can it be assessed? JAMA 260: 1743-1748.
- Thomas DR (2006) A General Inductive Approach for Qualitative Data Analysis. American Journal of Evaluation 27: 237-246.
- 3. Maxwell R (1984) Quality Assessment in Health. Br Med J 288: 1470-1472.
- Manns BJ, Lee H, Doig CJ, Johnson D, Donaldson C, et al. (2002) An economic evaluation of activated protein C treatment for severe sepsis. N Engl J Med 347: 993-1000.
- Department of Health (2002) Delivering the NHS Plan next steps on investment next steps on reform. London.
- Department of Health (2008) Joint Strategic Needs Assessment Quality Assurance Toolkit NHS East of England.
- Green A (2007) An Introduction to health planning for developing health systems. Oxford University Press.
- Greengross P, Grant G, Collin E (1999) The history and development of the UK National Health Service 1948-1999. HSRC.
- 9. Ham C (1999) Improving NHS performance: human behaviour and health policy. BMJ 319: 1490-1492.
- Ellwood S (1996) Pricing services in the UK national health service. Financial Accountability & Management 4: 281-301.