

Price Adjustment Options for a Not-For-Profit Health Organization

AlaDeen Mah'd Alloubani¹, Ibrahim Mubarak Abdelhafiz²

¹University of Tabuk, Department of Nursing

²University of Tabuk, Faculty of Medicine

Abstract: *The study of health care financial management is both fascinating and rewarding. For one, it is fascinating because many of the concepts involved pose implications for both professional and personal behavior. It is also rewarding since, right or wrong, health care environments today and into the foreseeable future increasingly force managers to focus on the financial consequences of making operating decisions. The aims of this study to verify the feasibility of introducing some price adjustments into not-for-profit health organizations, by highlighting the primary benefits of applying such changes for various stakeholders, including patients, employees, the health organization itself, and even the community at large. The methods of this study are discussed the alternative pricing. These include a flat fee system, charging preset fees at different rates and the percentage of the expected revenues of services provided. The hospital of study is supposed to be a not-for-profit, self-funding organization. The hospital's capacity is 105 beds. The health care in which is provided by 31 specialists, 10 residents and 8 general physicians along with 201 licensed nurses. It is to be noted that applying this flat fees system is of relative value in terms of financial returns. An amount of (99176.5 JDs) could be of some value if effectively and efficiently used for the welfare of the patients by providing a higher quality of services at a lower cost. It was found that the use of fixed percentage charges from patients who are insured or able to pay; provide a better way to generate reasonable revenue to the not-for-profit hospital, and it is an easier and a more reproducible method that can be applied to a simple accounting system.*

Keywords: Not-for-profit; financial management; flat fee system; quality of services; Healthcare.

1. Introduction

The study of health care financial management is both fascinating and rewarding. For one, it is fascinating because many of the concepts involved pose implications for both professional and personal behavior. Yet, it is also rewarding since, right or wrong, health care environments today and into the foreseeable future increasingly force managers to focus on the financial consequences of making operating decisions (Kohn 1993).

Any *not-for-profit* corporation must be organized and managed to operate not for private, but for public interests exclusively. Because non-profit businesses, as opposed to pure charities, need profit to sustain operations, and since explaining why non-profit corporations should earn profits is difficult, the term *not-for-profit* is more descriptive of such health services organizations (Gapenski 2012). For instance, the prohibition of personal gain from profit does not prevent not-for-profit corporate parties, including managers and physicians, from benefiting by way of salaries and perquisites, among other forms of personal gain (Gapenski 2011).

In general, pricing systems involve a difficult balancing act between major and minor factors that affect decisions regarding, for example, the types of the organization's offerings, the demand, the cost function, and competitors' prices. In health care organizations in particular, offerings (i.e., health care services) are considered to be mostly inelastic demands. In cases in which customers are relatively insensitive to price, managers usually set higher markups over cost. At the same time, in not-for-profit organizations, prices are usually set on a cost basis, with markups made only to accommodate associated variable and fixed costs (Barned 2009). Given the cultural spirit of social

responsibility in not-for-profit organizations, pricing is not easily subject to any kind of hypothetical change, to say nothing of price increases (Barned 2009). This analysis thus aims to verify the feasibility of introducing some price adjustments into not-for-profit health organizations, by highlighting the primary benefits of applying such changes for various stakeholders, including patients, employees, the health organization itself, and even the community at large.

2. Literature Review

Financial management is the handling, arranging, organizing, and controlling the financial activities and of an entity irrespective of it being a profit or a nonprofit entity. Despite being a non-profit organization, it is still important for it to generate profits in order to manage its operations and provide quality healthcare to the patients. Nonprofit organizations work on funding and revenue generation. However, the revenue that is generated is spent on the expenses and some other operations that are required to run the Organizations. According to a study, individuals always look for two types of rationale of justification. Intrinsic activity is performing a specific for no reward or benefit. However, the only reward, which is received through intrinsic activities, is of performing the act itself. The people who work for nonprofit organizations do not look for any reward of cash or appreciation; however, they do want to feed their souls after doing something good for the humanity. Other people work for extrinsic purposes, which are completely based on getting the cash rewards. According to the study, nonprofit organization employees need little external motivation as compared to other employees who work for profit organizations (Serra, et.al, 2010).

For profit organizations, revenue is the most important part of the business; however, for nonprofit organizations,

revenue is not the important part of the business but the important part is to serve the people who need help. For health sectors, nonprofit organizations are very crucial; however, in order to survive, they need constant financial help through donations. According to a study, nonprofit organizations get the donation because of the amount of trust people have in them. However, the donations are not always enough and price adjustment becomes necessary in order to provide better services to the people by increasing prices and getting a little more revenue. The financial management of nonprofit health organization is very crucial for the survival of the organization because the expenses allocation need to be accurate in order to avoid unnecessary expenses and allow the hospitals to provide better health care to the patients who cannot afford to pay (Korten, 1987).

3. Assumptions

Applying the price changes (through either pre-set fees or a percentage of the cost) is a reasonable and efficient approach to creating an independent source of extra funds for *not-for-profit* health organizations. This extra fund could be used to:

- 1) Improve the services provided by the hospital, through developing new medical & technological services, improving current services, investing in the hospital's utilities, which would justify the extra charge imposed.
- 2) Raising a fund to support the "unable to pay" category patients.
- 3) Providing incentives for the employees.

4. Research Question

Will the entity's decision of price adjustment in the services provided have an impact on the quality of services as well as on the mission of its existence that is to serve the society effectively?

5. Methods

There are two methods that can be used in order to assess their feasibility and to assess whether these can be used to achieve the goals and objectives. These two methods include a flat fees system where a preset fee is charged at different rates and the other method is the percentage of the expected revenues of services provided. These two methods were used to reviewing and analyzing the results obtained from patients of hospitals that used their price adjustment options to generate extra income and did that had a positive effect on medical care provided to the patients and asking them whether they are willing to trade better facilities for a little increase in the prices (Bernard, 2011).

6. Design of Fee Adjustment Systems

Flat Fees System

This system is also called a linear system. In this system, patients are required to flat fee for different services regardless of their usage. In other words, patients will be charged a pre-defined amount for every unit of medical service they avail (Reinhardt 2006). This pricing structure

has a drawback that it may hurt the ability to provide quality care. If the hospital receives a fixed payment regardless of service availed, the cost of treating patients will increase (Carlson & Kutscher 2013).

Percentage of Revenue System

Under this system, each patient is charged an additional percentage of the amount of service rendered to those patients. This system requires that patients should not only pay for the services they avail, but they must pay the additional percentage as well. This system is advantageous because the additional revenue may be diverted to increase the service quality (Gaglani 2014).

Setting

The hospital of study is supposed to be a *not-for-profit*, self-funding organization. The hospital's capacity is 105 beds. The health care in which is provided by 31 specialists, 10 residents and 8 general physicians along with 201 licensed nurses. In an attempt to be realistic, data used in this analysis was obtained from an existing public hospital in Jordan. The following data, arranged in tables, shows the numbers and characteristics of patients visiting the hospital; they are classified according to outpatients visiting specialty clinics, emergency room visits, in addition to the inpatients of the hospital.

Application

Table 1: Number of outpatient visits for specialty clinics:

Gender	Insured	Cash payer	Unable to pay	<6years	Total
Male	38765	2227	4786	1658	47436
Female	48075	2113	5871	1190	57249
Total	86840	4340	10657	2848	104685

Table 2: Number of inpatients:

Gender	Insured	Cash payer	Unable to pay	<6years	Total
Male	3035	731	333	247	4346
Female	4873	801	667	127	6468
Total	7908	1532	1000	374	10814

Table 3: Number of emergency patients:

Gender	Insured	Cash payer	Unable to pay	<6 years	Total
Male	42785	677	5788	2045	51295
Female	34942	449	5729	1796	42916
Total	77727	1126	11517	3841	94211

Table 4: Revenues of the hospital:

Insured	Cash payer	Unable to pay	< 6 years	Total
40277990	62879870	3867265	927200	107952325

Table 5: Annual salaries paid for the employees at the hospital

Salaries	Annually paid in JDs
Specialists	420000
General physicians	48000
Staff nurses	414960
Practical nurses	358200
Others	373200
Total	1614360

Table 6: Annual Incentives paid for the employees of the hospital

Incentives	Annually paid in JDs
Physicians	136800
Nurses	132400
Others	21600
Accountants	2000
Total	292800

7. Results & Application

The two methods suggested are further examined to help evaluate the efficiency of price raising in a *not-for-profit* public hospital, to decide the more practical one in terms of feasibility, applicability, and rates of return, and as follow:

1. Flat fee system: through charging a fixed amount of fees for each service, that includes emergency room visits,

Table 7: Expected revenues after applying the flat fees method:

Number of patients	10piasters	20piasters	30piasters	40piasters	50piasters
Outpatients (91180)	9118	18236	27354	36472	45590
Inpatients* (28320)	2832	5664	8496	11328	14160
Emergency room visits (78853)	7885.3	15770.6	23655.9	31541.2	39426.5
Total (179473)	19835.3	39670.6	59505.9	79341.2	99176.5

*The number of beds in the Hospital is 105 beds, and the occupancy rate is estimated to be 85%.

The average number of days of stay (DSO) = $\frac{\text{number of beds} \times \text{occupancy rate} \times 365}{\text{Number of inpatients}}$

= $\frac{105 \times 0.85 \times 365}{10814}$
 = 3 days

The number of days that are occupied by the patients who are to pay the extra fees = $9440 \text{ patients} \times 3 \text{ days}$
 = 28320 days

Statement of operations

Unrestricted Revenues, Gains, and Other support	107952325
-Expenses:	
Salaries and incentives	1907160
Medical supplies	110000
Non-medical supplies	55000
Total expenses	2072160
Operating Income	105880165
+Other Income	
Excess of revenues, through flat fee method of 50 piaster charge	99167
Increase in Unrestricted Net Assets	105979332

It is to be noted that applying this flat fees system is of relative value in terms of financial returns. An amount of (99176.5 JDs) could be of some value if effectively and efficiently used for the welfare of the patients by providing a higher quality of services at a lower cost, or in the welfare of the employees of the hospital by increasing their incentives

inpatients stay and outpatient clinic visit. We speculated 5 different levels of charges:

- 10 piaster charged per outpatient clinic visit, emergency room visit, and inpatient day of stay.
- 20 piaster charged per outpatient clinic visit, emergency room visit, and inpatient day of stay.
- 30 piaster charged per outpatient clinic visit, emergency room visit, and inpatient day of stay.
- 40 piaster charged per outpatient clinic visit, emergency room visit, and inpatient day of stay.
- 50 piaster charged per outpatient clinic visit, emergency room visit, and inpatient day of stay.

The financially poor patients who are incapable of paying the fees of treatment, along with children below 6 years of age, were excluded from paying the extra charges.

and bonuses. Such an increase in the price might be not easily noticed by the patients, especially with price rates still less than those prices of similar for-profit providers.

2. Charging an extra amount that equals a preset percentage on the total final bill of each patient, at five different levels:

- 0.1% of the original revenues of treatment charged over the three categories of patients.
- 0.2% of the original revenues of treatment charged over the three categories of patients.
- 0.3% of the original revenues of treatment charged over the three categories of patients.
- 0.4% of the original revenues of treatment charged over the three categories of patients.
- 0.5% of the original revenues of treatment charged over the three categories of patients.

Again, the financially poor patients who are incapable of paying the fees of treatment, along with children below 6 years of age, were excluded from paying the extra percentage charges.

Table 8: Expected revenues after applying percentage charging method:

Original Revenue*	0.1%	0.2%	0.3%	0.4%	0.5%
103157860	103157.86	206315.72	309473.58	412631.44	515789.3

*After excluding the two excluded categories, the amount of revenues subject to extra percentage charging is 103157860 JDs

Statement of operations

Unrestricted Revenues, Gains, and Other support	107952325
-Expenses:	
Salaries and incentives	1907160
Medical supplies	110000

<i>Non-medical supplies</i>	55000
<i>Total expenses</i>	2072160
<i>Operating Income</i>	105880165
<i>+Other Income</i>	
<i>Excess of revenues, through flat fee method of 0.5% charge</i>	515789
<i>Increase in Unrestricted Assets</i>	106395954
	<i>Net</i>

In this second method, i.e. extra charging predefined percentages of the expected revenues of the provided services; it could be of more value than the first method, i.e. extra charging a predefined amount of fees over the services provided.

As mentioned above, this extra revenue could be used in the welfare of the local patients, employees of the hospital. Moreover, this extra revenue could be invested in some relevant or irrelevant businesses to achieve multiplication and ensure sustainability of the self-funding strategy.

8. Outcomes

An overwhelming majority of patients had no issues regarding a slight increase in the prices of the services provided to them as long as the extra funds generated are invested in improving the facilities and providing medical facilities to those poor patients who cannot pay their bills. Patients wanted better care rather than a fancier hospital. On the other hand, reviewing and analyzing earlier conducted studies also provided the fact that those patients who were treated in expensively renovated hospitals and upscale medical centers did not necessarily had a positive review about the medical care provided to them. Their main concern was that the extra funds generated by the management through price adjustments have not been utilized properly towards improving the medical facilities (Stelwagon, 2012).

9. Discussion

Financial management in a non-for profit healthcare organization means to operate and make decisions in such a way that the entity is able to serve the patients effectively and at extremely low costs without facing too much of financial problems itself (Anheier, 2014). It is also the function of the financial management in a healthcare organization to generate funds staying within the constraints so that better healthcare facilities can be provided to the patients. It can be an extremely difficult decision to make regarding increasing the prices in a non for profit healthcare organization without shifting too much burden on the patients especially the poor patients as well as children because it can undermine the purpose of existence of these entities (Gregoroudis, 2012).

Price adjustment decisions are such kind of decisions where the entity needs to increase prices of services provided so that extra income and funds are generated and then invested back to improve health care facilities such as providing the latest medical treatments, heavily subsidizing for patients

who cannot afford to pay, investing in the utilities of the hospital (Newhouse, 2013).

From the given data, it is observed that the hospital tends to generate revenue from its insured and non-insured patients. All the financial analysis is represented in Jordanian dinar currency. The fixed costs of the hospital include the annual salaries of the personnel which stand at 1,614,360 JOD. The other part of fixed costs includes annual incentives which will be paid to nurses, physicians and other support staff which amounts to 292,800 JOD. Total revenue generation is expected to be 107,952,325 JOD regardless of any of the pricing structure adjustment. Whatever level of revenue the two pricing adjustments generate, they will be categorized as additional revenue. Flat fee system is based on the charge in piaster currency. In contrast, the other pricing method is imposed in percentage form. Both are imposed on three kinds of patient services. They include per clinical visit, per impatient day and visit in the emergency room (Zelman 2009). Poor patients and children below six years of age are excluded from the two pricing structures. The hospital will be catering to the medical issues of majority of insured patients. If the hospital employs a flat fee system, it will receive less revenue from patients and provide a high-quality service at low cost. To compensate the lost revenue, physicians and other staff members will be paid an annual incentive. The increase in the service fee will not be communicated to patients. However, the hospital is able to generate additional revenue if it charges the pre-defined percentage prices for medical services. This pricing structure generates more revenue of 416,622 JOD than the fixed fee system. Such additional revenue is proposed to be invested to acquire medical equipment and supplies (Genpact 2013). It will increase the quality of service provided (Miller 2013). Similarly, it is mentioned in anearlier section that the demand prevailing in the medical care industry is inelastic (Shafrin 2009). Patients who consume medical services are willing to pay any price to restore their health. They are less sensitive to any given change in price of medical services (Marotta & Russell 2014). Due to this any of the proposed pricing options could be used for adjustment. However, pre-defined percentage system seems more feasible than that of the flat fee system.

Comparative to results in the same industry, this study has some similarity with other researches and plans. All other health organizations are designing their price structures in the same manner as this organization. However, there is dissimilarity in the results about way fee for services that are charged. Results from other health institutions tend to focus on fee equivalent to the quantity of service provided. No percentage adjustment is embedded to their pricing structures just as in case of the organization under review.

10. Implications for Theory and Practice

The study of the patients' responses and analyzing the previous studies, the management can take several different steps in relation to price adjustment. The management can start off by initially increasing the prices of its lesser utilized medical facilities by a uniformly fixed percentage to ascertain the elasticity of demand and whether it has affected the number of patients using the facilities and whether the

step generated extra income for the organization. The increase in prices can then be applied on other health services as well. The management also needs to make sure that the increase in prices does not prove as a deterrent in patients visiting the hospital. The increase in charges must be minimal at first. The extra income generated must also be allocated towards the betterment of the entity's own employees by providing them incentives.

The management can either adjust the prices using a flat rate system in which it can set a pre-defined price regardless of the number of times the medical service is used by patients. This system can increase the costs for the hospital because it will receive a fixed sum despite the number of times the service is used (Just, 2011). Another method will be to charge a fixed percentage on the final billing amount of patients. This means that the patients will pay for the services they used along with the extra percentage of costs. This can assist the management in generating additional income.

11. Conclusion

Financial management in non-for profit healthcare entities is a thankless job because it requires the management to look after the society as well as its own organization and work for the betterment of both without compromising their duties towards either of them. Price adjustment options must be used in a sensible way after studying and analyzing the pros and cons of the techniques as well as taking a leaf out of the experiences of other non-for profit organizations.

Not-for-profit health organizations must operate efficiently to provide cost-effective and affordable health care services, and to ensure their continued ability to reinvest in the improvement of the community's care and access. To that end, not-for-profits should be held to the highest standards and practices of financial management and planning so that fiscal resources are managed responsibly for the public health good.

It was found that the use of fixed percentage charges from patients who are insured or able to pay; provide a better way to generate reasonable revenue to the not-for-profit hospital, and it is an easier and a more reproducible method that can be applied to a simple accounting system.

The revenue can be used in maximizing incentives to the employees of public hospitals, which in turn help as a motivator for better health services production. Also, this revenue can be used in expanding the hospital, opening new departments and providing better services, thus improving the existing one. An ethical challenge arises here, in the application of a strategy of extra charging already insured patients, balanced with the extra care provided by the more efficient health care system.

References

- [1] Anheier, H. K. (2014). *Nonprofit Organizations: An Introduction: Theory, Management, Policy*. Routledge. Retrieved from <http://xa.yimg.com/kq/groups/30802428/172491159/na>
- [2] Bamed, J., (2009). *Financial management of not-for-profit organisations*, First Edition, CPA Australia Ltd.
- [3] Bernard, H. R. (2011). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman Altamira. Retrieved from http://www.academia.edu/download/30356724/june_20_11_web.pdf on 9th April, 2015.
- [4] Carlson J. & Kutscher B. (2013) "Medicare to pay flat rate for clinic visits" *Modern Healthcare Business News Articles*, Data retrieved from <http://www.modernhealthcare.com/article/20131127/NEWS/311279934>
- [5] Gaglani S. (2014) "Investing in Medical Devices: Interview with Venture Capitalist Dave Eichler of Psilos" *Medgadget: Medical Technology News*, Data retrieved from <http://www.medgadget.com/2014/06/investing-in-medical-devices-interview-with-venture-capitalist-dave-eicher-of-psilos.html>
- [6] Gapenski, Louis C., (2012) *Fundamentals of Healthcare Finance*, Second Edition, Health Administration Press.
- [7] Gapenski, Louis C., (2011) *Healthcare Finance: An Introduction to Accounting and Financial Management*, Fifth Edition, Health Administration Press.
- [8] Genpact (2013) "Transforming Business Processes to Increase Profitability" *Genpact Business Solutions* p. 1, Data retrieved from http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&uact=8&ved=0CGMQFjAJ&url=http%3A%2F%2Fwww.genpact.com%2Fdocs%2Fresource-%2Ftransforming-business-processes-to-increase-profitability&ei=HD4gVMjMAdPKaLfaGIAI&usg=AFQjCNEErZn2GS4ccaxqW1ku0_YioZ929g&bvm=bv.75775273.d.d2s
- [9] Grigoroudis, E., Orfanoudaki, E., & Zopounidis, C. (2012). Strategic performance measurement in a healthcare organisation: A multiple criteria approach based on balanced scorecard. *Omega*, 40(1), 104-119. Retrieved from
- [10] <http://isiarticles.com/bundles/Article/pre/pdf/12766.pdf> on 9th April, 2015.
- [11] Just, D. R., & Wansink, B. (2011). The flat-rate pricing paradox: conflicting effects of "all-you-can-eat" buffet pricing. *The Review of Economics and Statistics*, 93(1), 193-200. Retrieved from http://dyson.cornell.edu/special_programs/foodpsychology/pdf/pre-prints/Flat-Rate-Pricing-Paradox-2010.pdf on 9th April, 2015.
- [12] Kohn, (1993) *Free Why Incentive Plans Cannot Work* College Essay Yaolingyao2. (n.d.). Retrieved from <http://www.bignerds.com/papers/85146/Why-Incentive-Plans-Cant-Work/>
- [13] Korten D. (1987). *Third Generation NGO Strategies: A Key to People-centered Development*. *World Development*. Retrieved on 4/10/2015
- [14] Marotta D. & Russell M. (2014) "Supply, demand of health care payment" *The Daily Progress Newspaper Columns*, Data retrieved from http://www.dailyprogress.com/opinion/guest_columnists/supply-demand-of-health-care-

payment/article_bb196b54-2088-11e4-befe-0017a43b2370.html

- [15] Miller H. (2013) "U.S. Medical Device Industry In Critical Condition" *Forbes Magazine*, Data retrieved from <http://www.forbes.com/sites/henrymiller/2013/07/24/u-s-medical-device-industry-in-critical-condition/>
- [16] Newhouse, J. P., Garber, A. M., Graham, R. P., McCoy, M. A., Mancher, M., & Kibria, A. (Eds.). (2013). *Variation in Health Care Spending:: Target Decision Making, Not Geography*. National Academies Press. Retrieved from <http://quality.knowledgebase.co/assets/iom.variation.pdf> on 9th April, 2015.
- [17] Reinhardt U. (2006) "The Pricing of U.S. Hospital Services: Chaos Behind A Veil of Secrecy" *Medscape Latest Medical News*, Data retrieved from http://www.medscape.com/viewarticle/521175_2
- [18] Shafrin J. (2009) "Is health care demand elastic?" *Healthcare Economist News*, Data retrieved from <http://healthcare-economist.com/2009/07/22/is-health-care-demand-elastic/>
- [19] Serra D. (2010). Intrinsic Motivations and the Non-Profit Health Sector. *Econstor*. Retrieved on 4/10/2015
- [20] Stelwagon, W. M. (2012). Does a Healthy Patient Need a Cure? A Response to Health Care Industry Proposals to Reform Antitrust Analysis of Horizontal Hospital Mergers. *St. John's Law Review*, 69(3), 10. Retrieved from <http://scholarship.law.stjohns.edu/cgi/viewcontent.cgi?article=1653&context=lawreview> on 9th April, 2015.
- [21] Zelman N. (2009) "Financial Management of Health Care Organizations: An Introduction to Fundamental Tools, Concepts, and Applications" *John Wiley & Sons* p. 452, Data retrieved from http://books.google.com/books?id=0cMeWz6aQC0C&pg=PA452&dq=Flat+fees+system&hl=en&sa=X&ei=WycgVNP_EoKaO5vGgDg&redir_esc=y#v=onepage&q=Flat%20fees%20system&f=true