Augmenting hospital funding with user fee charge: The revolving fund scheme.
H Ugboma, E Ugboma

Citation

Abstract
Background: Health care delivery has remained crippled in most third world countries. In Nigeria, various attempts by subsequent governments to improve on it has at best been on paper. Method: Analysis of hospital data for the period spanning 7 years before the onset of the revolving fund and eleven years after its onset was done. Method of application was also documented. Result: Service delivery was improved. Morbidity was reduced. Workers moral were better. However, improved services brought in more patients, resulting in increase mortality. Conclusion: An improved revolving fund scheme practiced by many establishments may improve the general status of our institutions.

INTRODUCTION
Adequate health-care delivery has remained a mirage for most of the developing countries. Despite funding from government, external financing, insurance, individuals, corporate donations, community financing and user charges, our health-care delivery has remained comatose with resultant high morbidity and mortality. Inadequate manpower development and poor infrastructures, absence of basic facilities and utilities have not made things better. With the general poverty status of our people and poor leadership, the future of the health industry seems hopeless.

The Nigerian health budget for 2008 was N138.17 billion. In Nigeria, the national assembly has consistently made budgetary allocation to the tune of at least 4.5% of federal government recurrent expenditure to the health sector. In 2004, statistics from organization for economic co-operation and development (OECD) showed that the total public health expenditure in Nigeria amounted to only 1.2% gross domestic product (GDP). This is grossly inadequate for the health burden of a nation such as Nigeria.

In many African countries, the public spending on health care is well below the levels needed to achieve the millennium development goals over the next decade. In developed countries health care is better financed. Spain’s health budget for 2008 was greater than 1 billion euros. Japans health success implementation is rooted in its adequate financing. Here, local governments assumed the main responsibility for financing health promotion. Japans fiscal year 2008/2009 starting in April had 21.78 trillion yen budgeted for medical services and pensions. Health package for their citizens are obviously better and advanced.

The introduction of a hospital revolving fund scheme in the University of Port Harcourt Teaching Hospital about ten years ago (1997) where the various departments collect user fees and recycle it back into the system has improved health-care delivery.

MATERIALS AND METHOD
Records of hospital activities between 1990 and 2007 were retrieved from records department, various wards and the administrative unit of the hospital. These records were analysed.

REVOLVING FUND SCHEME
The pilot scheme was started by the department of obstetrics and gynaecology. Take-off seed money of N250, 000.00 (US dollars 1,623.00) was loaned to the department by the University of Port Harcourt Teaching hospital management. This money was used to purchase the immediate consumables and materials needed for the take off of the project. It has since been paid back. This is to make the
department relatively autonomous. A project committee was set up, made up of a project manager (Head of Department of obstetrics and gynaecology), a project accountant, project secretary, three other consultants in the department, the department’s chief resident or resident doctors’ representative, the chief medical director’s representative, the director of clinical services and training, the chairman, medical advisory committee, the chief nursing officer obstetrics and gynaecology, the head of pharmacology department or his representative.

The committee meets monthly or more frequently if the need arises. The day to day running of the project is done by the project manager, project accountant, chief resident and chief nursing officer. The signatories to the account are those of the project manager, project accountant, and the chief medical director. Due process is followed in awarding contracts and there is a ceiling on the amount of money the committee can approve.

By the year 2000 all the departments in the hospital had started the revolving fund scheme. Presently the hospital management has changed the method of fund management by getting all funds collected daily paid into a dedicated account in a bank situated in the hospital premises. Monthly budgetary allocations are then made to each department after the due process committee had scrutinized their budgets and seen evidence of previous retirements.

RESULTS

In 1997, resident doctors were 15 at the onset of the revolving fund scheme in obstetrics and gynaecology department, 14 in pediatrics department and 15 in surgery department. By the year 2000 when all the departments had started revolving, there were 28 residents in obstetrics and gynecology department, 21 in pediatrics department and 26 in surgery department. All the revolving departments had new account staffs employed by the hospital management. Other units have new staffs employed to cope with increased patients load.

Industrial disputes (labor strikes) were common before the onset of the revolving fund scheme. In 1995, the hospital was shut down for 2 months (January to February). In 1996, it was shut down for 6 months (January to March and July to September). In the month of March 1997, the hospital was shut down for 1 week. Since the year 2001, there has not been any local industrial dispute leading to a shut down of the hospital.

Figure 1
Table 1a: Admission and mortality from 1990 – 1997

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Admissions</td>
<td>2884</td>
<td>3126</td>
<td>3844</td>
<td>4798</td>
<td>6248</td>
<td>3832</td>
<td>8410</td>
<td>10792</td>
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<tr>
<td>Mortality</td>
<td>152</td>
<td>208</td>
<td>242</td>
<td>280</td>
<td>317</td>
<td>260</td>
<td>304</td>
<td>852</td>
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Figure 2
Table 1b: Admission and mortality from 1998 – 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
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<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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</thead>
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<tr>
<td>Admissions</td>
<td>11504</td>
<td>11708</td>
<td>11841</td>
<td>10892</td>
<td>10992</td>
<td>11496</td>
<td>11014</td>
<td>13402</td>
<td>13830</td>
<td>13137</td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td>876</td>
<td>900</td>
<td>920</td>
<td>990</td>
<td>920</td>
<td>372</td>
<td>940</td>
<td>1140</td>
<td>1390</td>
<td>2222</td>
<td>1817</td>
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</table>

Figure 3
Table 1a: Federal Government allocation to the hospital from 1992- 1999 (in Naira)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Budget</td>
<td>7.0m</td>
<td>6.79m</td>
<td>10.67m</td>
<td>1.23m</td>
<td>1.57m</td>
<td>83.5m</td>
<td>52.7m</td>
<td>49.3m</td>
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<tr>
<td>Personnel cost</td>
<td>34.14m</td>
<td>35.75m</td>
<td>37.1m</td>
<td>8.63m</td>
<td>95.6m</td>
<td>102.4m</td>
<td>51.61m</td>
<td>275.7m</td>
</tr>
</tbody>
</table>

Capital project money is for major jobs like construction of buildings, purchase of heavy equipments and vehicles

Personnel cost covers workers salaries.

Overhead cost was introduced in the year 2001. This is for the purchase of minor equipments and consumables used daily also for repairs and services. This money is provided by the federal government of Nigeria through the federal ministry of health.

Naira is the Nigerian currency.
Augmenting hospital funding with user fee charge: The revolving fund scheme.

**Figure 4**

Table IIb: Federal Government allocation to the hospital from 2000-2008 (in Naira)

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital (in Naira)</th>
<th>Personnel cost (in Naira)</th>
<th>Overhead cost (in Naira)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>22.4m</td>
<td>6.4m</td>
<td>10.7m</td>
</tr>
<tr>
<td>2001</td>
<td>102.7m</td>
<td>6.4m</td>
<td>11.2m</td>
</tr>
<tr>
<td>2002</td>
<td>106.4m</td>
<td>9.6m</td>
<td>10.3m</td>
</tr>
<tr>
<td>2003</td>
<td>94.9m</td>
<td>9.6m</td>
<td>10.3m</td>
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<tr>
<td>2004</td>
<td>146.0m</td>
<td>9.6m</td>
<td>10.3m</td>
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<tr>
<td>2005</td>
<td>212.7m</td>
<td>10.8m</td>
<td>10.3m</td>
</tr>
<tr>
<td>2006</td>
<td>196.5m</td>
<td>10.8m</td>
<td>10.3m</td>
</tr>
<tr>
<td>2007</td>
<td>300.0m</td>
<td>10.8m</td>
<td>10.3m</td>
</tr>
<tr>
<td>2008</td>
<td>300.0m</td>
<td>10.8m</td>
<td>10.3m</td>
</tr>
</tbody>
</table>

*One dollar is equivalent to 154 naira (January 2019)*

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Personnel cost covers workers salaries.

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**Figure 5**

Table III. Internally generated revenue (Revolving Fund Scheme) from 2002 to 2008. (In Naira)

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>306,803,123.01</td>
<td>208,997,013.84</td>
<td>206,411,969.70</td>
<td>218,729,004.14</td>
<td>185,499,187.14</td>
<td>398,399,795.35</td>
<td>312,809,402.49</td>
</tr>
</tbody>
</table>

DISCUSSION

The financing of health-care in developing countries is difficult and most times contentious. Attempts at raising health resources have been varied with little success. Poor funding and inadequate manpower capacity have kept the health facilities of most developing countries in near non-functional status.

At the onset of the revolving fund scheme in our teaching hospital, we had few resident doctors. This number increased when the workload increased and services improved. The increased numbers including those of other staffs have a positive effect on faster response time to emergencies and decreased morbidity. Workers salaries including those of residents are paid by the federal government.

Industrial disputes (labour strikes) which were common before the onset of the revolving fund, dropped and even stopped after the onset of the scheme. Workers morale were improved, salaries which hitherto were irregular, now were paid even before the end of the month. While waiting for the federal government subvention, monies were recouped from the revolving fund for salary payment. Other needed consumables and minor equipments were also bought from this fund. The hospital is clean. Regular and clean water and emergency drugs are available. Light refreshments are provided sometimes in the course of duty. All these added to the reduction in morbidity though mortality increased. Many patients that other wise would have died were saved. Indigent patients are cared for promptly when before now, they were neglected for want of materials to manage them with. Mortality increased from 6.3% in 1992 to 7.9% in 1997 and 10.4% in 2004 to 12% in 2008. This is like more money for worse outcome. Factors contributing to this include the increased rate of dumping very ill patient on us by the private hospitals, peripheral hospitals and traditional health attendants.

These are those too ill for them to manage or those that have exhausted their money and could not pay. Also, with the improved services more patients are attracted to our facilities even from other states. Our facilities are over stretched and though more staffs are being employed, the patients load outweigh our capacity. Fatigue for both men and machine is a regular feature. Mortality may be a response to some of these.

The federal government allocation to the hospital is shown in Tables IIa and IIb. It has been on the increase. This is to meet up with the increased staff strength, more facilities and structures and general overhead cost.

The revolving fund scheme which some institutions have tried has its advantage but may be a problem in having many funds outside the central administration. This we have solved by having a central paying pool from which monthly budgetary allocations are made after passing through due process. With the institution of the revolving funds, there is a better scrutiny of income. The various departments actually known on daily basis what comes in and therefore the monthly financial reports by the project accountant can almost always be projected. This has reduced or probably eliminated pilfering of money. It has increased money available for health delivery. Table III shows revenue accrued over the years from the user charge revolving fund scheme. Workers morale were improved, salaries which hitherto were irregular, now were paid even before the end of the month. While waiting for the federal government subvention, monies were recouped from the revolving fund for salary payment. Other needed consumables and minor equipments were also bought from this fund. The hospital is clean. Regular and clean water and emergency drugs are available. Light refreshments are provided sometimes in the course of duty. All these added to the reduction in morbidity though mortality increased. Many patients that other wise would have died were saved. Indigent patients are cared for promptly when before now, they were neglected for want of materials to manage them with. Mortality increased from 6.3% in 1992 to 7.9% in 1997 and 10.4% in 2004 to 12% in 2008. This is like more money for worse outcome. Factors contributing to this include the increased rate of dumping very ill patient on us by the private hospitals, peripheral hospitals and traditional health attendants.

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The federal government allocation to the hospital is shown in Tables IIa and IIb. It has been on the increase. This is to meet up with the increased staff strength, more facilities and structures and general overhead cost.
In a developing economy such as ours with all intent aimed at achieving the millennium development goals, financing health care with user fees employed in a revolving fund scheme can change the face of health care delivery.

More institutions, not just hospitals can give it a try while waiting for such a time when government and non-government financing will transport them to such ideals as seen in most developed economies.

**References**

Author Information

Henry A. A. Ugboma, Bsc; MBBS; FWACS; FICS
Consultant Obstetrician and Gynaecologist, University of Port Harcourt Teaching Hospital, Nigeria

Enighe W. Ugboma, MBBS
Department of Radiology, University of Port Harcourt Teaching Hospital, Nigeria.