Nigerian Medical Missions Center

A proposed Model State in Lagos Nigeria.
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Patrick Tyrance Jr.,

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GW Business School
A New Venture Project

Outline

- Executive Summary:
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  2. BUSINESS DESCRIPTION
  3. PRODUCT
     - Social Target Market
       - Product/Service Feasibility
       - Financial Feasibility
       - Organizational Feasibility
Executive Summary

Opportunity
There are many Nigerian physicians in the diaspora looking for opportunity to give back to Nigeria but are limited in the resources and opportunity available to them in Nigeria. NMMF will provide opportunity to have a safe medical mission as well as provide innovative high-tech medical center for local citizens and reduce medical tourism outflow.

Background
Nigeria the 32nd largest country in the world has a population of about 174,507,539 (July 2013 est.) and a GDP of $455 million with 5% of its GDP for health expenditure. Birth rate is 38.78 births/1,000 population. Infant Mortality rate is 72.97/1000 of live births and the 15th in the whole world. Life expectancy is 55.46 years which puts Nigeria in the 211th position in the whole world.
Executive Summary

- Growing concern about continuity of care in patients seeing by physicians on medical missions.
- Medical tourism, which is a hit and run style of medicine, cannot create lasting change in an ailing community and actually hurts the “helped” community.
- Paucity of follow-up data, poor relations with the local health care system, and lack of sustainability can challenge the good intentions of missions.
- The Nigerian Medical Mission Foundation (NMMF) is poised to make a lasting medical difference in the lives of Nigerians, starting with a model state in Nigeria.
Mission Statement

- National Medical Mission Foundation’s (NMMF) mission is to provide a safe opportunity for medical mission providers to work and provide services to indigenes without endangering the lives of people they hoped to help. While providing innovative high quality care to patients with effective data collection to improve healthcare in a safe, clean and energy efficient environment.
Value

NMMF analysis would show the foundation’s new process of approaching health care delivery in Nigeria to:

- Improve quality of care for medical mission patients
- Increase productivity and capital boost to economic growth in Lagos Nigeria
- Self sustainable and improve green house healthcare Center
- Innovative technology and data collection of medical data.

Product Feasibility: Model Description

- The goal is to build a Model Medical Mission Center (MMMC) in Acceptable State-
- Strategically positioned to be centrally located close to the point of entry to Nigeria,
- Best access to fixed cost like land opportunity and reduced traffic
- Better access to the other states through the interconnecting highways
- Joint sponsorship (Public-Private Partnership) between MMMC board of directors and Model State government with majority by board of NMMF for better decision making.
Product

NMMF

Non Profit Funding 40%

Medical Mission

Education and preventive Screening

Income support Funding 60%

Medical Tourism, Out Patient surgical center

Figure 1: Product layout

Phase 1: Disease Monitoring

- Infant Mortality focusing on Malaria in children and Pregnant women
- Diabetes Monitoring focusing on education, eye care, and outpatient care
- Human Immunodeficiency focusing on screening, education and outpatient care
- Breast Cancer, the leading cause of cancer in Nigeria, focusing on education, and diagnostic care
- Gastroenterology care focusing on healthy diet and diagnostic outpatient care
- Preventive healthcare screening package for children with immunization updates and adults.
## Phase one

<table>
<thead>
<tr>
<th>Outpatient Care</th>
<th>Interventional Radiologic</th>
<th>Laboratory Pharmacy</th>
<th>Medical Mission Hosting</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Internal and Family Medicine</td>
<td>• Radiology</td>
<td>• Full pharmacy</td>
<td>• Host Medical Mission</td>
</tr>
<tr>
<td>• Ophthalmology Care</td>
<td>• Sonogram, CT, MRI</td>
<td>• Full lab testing for hematology, chemistry</td>
<td>• Licensing and Permits</td>
</tr>
<tr>
<td>• Gastroenterology Care</td>
<td>• Endoscopy</td>
<td>• Pathology testing</td>
<td>• Travel tourism arrangement</td>
</tr>
<tr>
<td>• Educational Training and counselling</td>
<td>• ECG, Echo</td>
<td></td>
<td>• Post Mission data collection</td>
</tr>
<tr>
<td></td>
<td>• Telemedicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Phase 1 cont....

Phase 1: Infrastructure

- 2 Family Physicians and 3 nurse practitioners
- 10 Support staff
- 5 Management Team
- 20 Non-paying Navigators
- Laboratory
- Pharmacy
- Radiology
- 1 Operating room versus procedure Room
Phase 2

Outpatient Surgical Center

- Expand management of cataract
- Orthopedic surgical Care
- Breast Surgical Care
- Cardiac Lab
- Urological surgery
- Contractual agreement with local and international specialist to use the operating room
Phase 2 Structure

Outpatient Surgical Center

| Cataract Surgical Management | Breast Surgical Care | Cardiac Lab | Orthopedic surgical Care | Contractual Partnership with local stakeholders to use high tech operating room | Urological surgery |

Phase 2 contd..

Infrastructure
- 3 Hospitalists
- Expand Operating room to 4
- Facility Expansion
- 25 Observation rooms
- Support staffing
Model Funding

Revenue

Reinvest Profit into center and community

Non Revenue

Revenue

The Revenue section will focus on:

- Outpatient internal and family medical visits for comprehensive exams, ophthalmological and weight and GI management by Gastroenterologist
- Interventional diagnostic care and Telemedicine
- Medical tourism aspect of medical mission.
- Partnership with local stakeholders to use the center for “fee for service” for outpatient surgery; initially supporting ophthalmological surgeries, breast center, interventional radiology, diagnostic gastrointestinal procedures, laboratory support, and cardiac lab.
Model Funding: Non-Revenue

The Non-Revenue section will encompass:

- the educational support to the community focusing on malaria prevention, breast cancer awareness, HIV awareness, diabetes and cardiac health education.
- This would be mostly supported by funding from other major non profit and non governmental organizations.
- Governmental Partnership for Infrastructure Support
- Local Stakeholders like the Nursing school, Medical school for human capital support
SOCIAL AND TARGET MARKET

- Social Values
- Political Economy
Social Market Factors

- In spite of the various reforms to increase the provision of health to the Nigerian people, health access is only 43.3%. About 70% of the health care is provided by private vendors and only 30% by the government.

- Over half of the population live below the poverty line, on less than $1 a day and so cannot afford the high cost of health care.

- Current statistics show that health institutions rendering health care in Nigeria are 33,303 general hospitals, 20,278 primary health centers and posts, and 59 teaching hospital and federal medical centers.
Culture according to Hosfted, Namenwirth and Weber is described as a system of values and norms that shared amongst a group of people and when taken together constitutes a design for living. Values being an abstract ideas about what a group of people believe to be good, right and desirable. And norms believed to be social rules and guidelines that prescribe appropriate behavior in particular situations. (Global Perspectives 66)
Nigeria’s birth rate of 38.78 births/1,000 population is one of the fastest but with one of the highest infant Mortality rate placing it at the 15th in the world as a result of malaria infection complications as seen in Figure 1.

There is also a very poor healthcare system in Nigeria despite its natural wealth resulting in poor life expectancy rate of about 55.6 years. Past data showed the physician to patient ratio as 0.4 physicians/1,000 population (2008) with a hospital bed ratio of 0.53 beds/1,000 population (2004).

Figure 2: Health profile. Source from World Fact Book 2013
These cultural practices and level of education and technological influences affect the way individuals and community manage their health and subsequently contribute significantly to the quality of life and life expectancy as seen in Figure 2.
Political Economy

Nigeria obtained its independence on October 1st, 1960 to become the Federal Republic of Nigeria. Its capital is centrally located in Abuja with jurisdiction over thirty-six states. The country embraces many ethnic groups with the three most prominent ones as Yoruba, Hausa, and Ibo, however, the official language is English.
Current Provision

- The Nigerian health insurance scheme (NHIS) that was established in 2005 by Decree 35 of 1999 provided for the establishment of a governing council with the responsibility of managing the scheme.

- The appendage program of the NHIS launched in October 2008—Millennium Development Goals.

- This health care plan made little impact on the health sector, as it continued to suffer major infrastructural, and personnel deficit, in addition to poor public health management.

- Only one religious medical mission hospital is identified in Nigeria, Founded in 1952 by SIM missionaries, ECWA Hospital Egbe is a 121 bed rural teaching hospital serving a large population in Kogi State. The hospital covers 33 acres with 68 buildings.
Limitations

- Government turnover
- Self Interest groups
- Corruption at various level
- The Corruption Perceptions Index here ranks countries and territories based on how corrupt their public sector is perceived to be. A country or territory’s score indicates the perceived level of public sector corruption on a scale of 0 - 100, where 0 means that a country is perceived as highly corrupt and 100 means it is perceived as very clean. It is evident that the corruption comparison from 2012 to 2013 is still a major problem in Nigeria.

Figure 3: Corruption Perception Comparative to other Countries: Source by Author. Raw data by (Transparency CPI 2013)
Doing business in Nigeria ranking. The higher the rank the more difficult to do business.

Figure 4: (Transparency CPI 2013)
This chart shows the overall doing business in Nigeria has gotten slightly worse over the last year. This may be due to the worsening corruption state and as well as period approaching the election year.
Cost of Doing business in cities comparison

Figure 5: (Transparency CPI 2013)

The cost of doing business in major cities like the federal capital and Lagos is much better than many other cities. This adversely relates to how long a procedure takes to process within the governmental agencies for new business.

The lower the rank the better and faster the time to get the business done within the city.
Stakeholders for consideration

- State Government
- Religious investor
- Alliance with Local Hospital
- Potential Patients
Stakeholders contd..

- Private Investor
- Local Providers
- Other Foundation like Gates foundation, IDA founding through World Bank, Dangote Foundation
- Ministry of Health
Benefit of MMMC to Nigerians: Lagosians

- Specialized state of the art center for Healthcare, breast Center, Surgical Center and interventional medicine
- Committed experienced physician on schedule 365 day/year using a dedicated schedule of Physicians in the diaspora and locally
- Increase follow up for patients seeing by physicians on medical missions thus reducing mortality
- Innovative surgical treatment of patients and interventional diagnostic center to eventually reduce outflow of medical tourism and boost economic growth
Benefit To Model State

- Set precedence for other State to follow, like the “Abiye program”\(^1\) in Ondo State sets precedence for infant mortality rate reduction as recognized by World Bank.
- Primary benefits to the residents of Model state and its localities.
Financial Feasibility

Initial cost will consists of Fixed Cost and eventual operating cost

Fixed Cost: support from government needed:
1. Land and Infrastructure, about 25-40 acres of land but 10-15 acres to start.
2. Security and Permit
3. Building cost
4. Transportation cost for delivery of equipment and leasing
5. Utility supply

Fixed Cost by NMMF
1. Building cost
2. Architectural and engineering design
3. Equipment acquisition
### Start-Up Expenses

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Deposit Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Utilities Deposit</td>
<td>$100</td>
</tr>
<tr>
<td>Security System (includes installing cameras and gates)</td>
<td>$5,000</td>
</tr>
<tr>
<td><strong>Total Initial Deposits</strong></td>
<td>$5,100</td>
</tr>
<tr>
<td><strong>Start-up Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Accounting Fees</td>
<td>$500</td>
</tr>
<tr>
<td>Corporate Fees and Taxes (includes activation)</td>
<td>$2,000</td>
</tr>
<tr>
<td>Insurance Yearly Premium (include Medical Liability Coverage)</td>
<td>$10,000</td>
</tr>
<tr>
<td>Permits, Licenses</td>
<td>$1,000</td>
</tr>
<tr>
<td>Legal and Consulting Fees</td>
<td>$10,000</td>
</tr>
<tr>
<td>Office Supplies (excludes computer equipment)</td>
<td>$4,000</td>
</tr>
<tr>
<td><strong>Payroll Expenses (for entire first year of operation)</strong></td>
<td></td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>$1,140,000</td>
</tr>
<tr>
<td>Payroll and other Taxes (10%)</td>
<td>$114,000</td>
</tr>
<tr>
<td>Benefits (None provided)</td>
<td>$0</td>
</tr>
<tr>
<td>Travel Costs</td>
<td>$10,000</td>
</tr>
<tr>
<td>Promotion/Networking</td>
<td>$500</td>
</tr>
<tr>
<td>Memberships in local universities and other associations</td>
<td>$0</td>
</tr>
<tr>
<td>Pre-opening advertising</td>
<td>$1,000</td>
</tr>
<tr>
<td>Research and Development</td>
<td>$0</td>
</tr>
<tr>
<td>Web Site Costs</td>
<td>$1,500</td>
</tr>
<tr>
<td>Printing (cards, stationery, brochures)</td>
<td>$50</td>
</tr>
<tr>
<td>Misc. and Other Opening Inventory</td>
<td>$3,000</td>
</tr>
<tr>
<td><strong>Total Start-up Expenses</strong></td>
<td>$1,297,550</td>
</tr>
</tbody>
</table>

### Capital Expenditures

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Purchase (15-acres = 60,703 square-meters)</td>
<td>$22,500</td>
</tr>
<tr>
<td>Building Construction (20,000 square-feet = 1,858 square-meters)</td>
<td>$2,200,000</td>
</tr>
<tr>
<td>(includes Architectural/Engineering Design)</td>
<td></td>
</tr>
<tr>
<td>Computer Equipment (includes transportation/delivery expenses)</td>
<td>$5,000</td>
</tr>
<tr>
<td>Medical Devices (includes transportation/delivery expenses)</td>
<td>$5,000</td>
</tr>
<tr>
<td>Equipment/Machinery (includes transportation/delivery expenses)</td>
<td>$5,000</td>
</tr>
<tr>
<td>Furniture and Fixtures (includes transportation/delivery expenses)</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>Total Capital Expenditures</strong></td>
<td>$2,257,500</td>
</tr>
</tbody>
</table>

### Assumptions for salary

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Family Physician</td>
<td>2</td>
<td>$180,000</td>
</tr>
<tr>
<td>1 Nurse Practitioner</td>
<td>3</td>
<td>$210,000</td>
</tr>
<tr>
<td>1 Support Staff Salary</td>
<td>10</td>
<td>$500,000</td>
</tr>
<tr>
<td>1 Management Staff</td>
<td>5</td>
<td>$250,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$1,140,000</strong></td>
</tr>
</tbody>
</table>
### Productivity Schedule

**Lagos, Nigeria:**

Business Hours: 8:30AM - 5:00PM (8.5 Hours per Day with 1/2 Hour Alternating Lunch)

Monday - Friday (excluding Nigerian holidays)

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**Productivity (Assumed 25 minutes per each patient)**

<table>
<thead>
<tr>
<th></th>
<th>Number of Patients Seen per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Family Physician</td>
<td>20</td>
</tr>
<tr>
<td>1 Family Physician</td>
<td>20</td>
</tr>
<tr>
<td>1 Nurse Practitioner</td>
<td>20</td>
</tr>
<tr>
<td>1 Nurse Practitioner</td>
<td>20</td>
</tr>
<tr>
<td>1 Nurse Practitioner</td>
<td>20</td>
</tr>
</tbody>
</table>

Total per Day: 100

Total per Week: 500

Total per Month: 2,000

Total per Year: 24,000

## Revenue Generation

<table>
<thead>
<tr>
<th>Medical Service</th>
<th>Fee per Patient per Visit (US Dollar $)</th>
<th>Probability Percentage of Total Patients Using this Service per Year</th>
<th>Total Estimated Patients Using this Service per Year</th>
<th>Total Estimated Revenue Collection per Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent Care/Family Medicine</td>
<td>$50.00</td>
<td>100%</td>
<td>24000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>Eye Care</td>
<td>$10.00</td>
<td>60%</td>
<td>14400</td>
<td>$144,000</td>
</tr>
<tr>
<td>Breast Cancer and Diagnostic Care and Sonogram</td>
<td>$25.00</td>
<td>40%</td>
<td>9600</td>
<td>$240,000</td>
</tr>
<tr>
<td>Lab Testing (General)</td>
<td>$10.00</td>
<td>100%</td>
<td>24000</td>
<td>$240,000</td>
</tr>
<tr>
<td>EKG</td>
<td>$10.00</td>
<td>60%</td>
<td>14400</td>
<td>$144,000</td>
</tr>
<tr>
<td>CT Scan</td>
<td>$100.00</td>
<td>30%</td>
<td>7200</td>
<td>$720,000</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>$15.00</td>
<td>100%</td>
<td>24000</td>
<td>$360,000</td>
</tr>
<tr>
<td>MRI</td>
<td>$200.00</td>
<td>10%</td>
<td>2400</td>
<td>$480,000</td>
</tr>
<tr>
<td>Gastroenterology/Colonoscopy</td>
<td>$400.00</td>
<td>50%</td>
<td>12000</td>
<td>$4,800,000</td>
</tr>
<tr>
<td>Preventive Healthcare/Diabetes Education/HIV/AIDS Education</td>
<td>FREE</td>
<td></td>
<td></td>
<td>Total Revenue Collection for Year 1</td>
</tr>
</tbody>
</table>

Using a comparative price quote from Lagos State University Hospital and minimum price point for NMMF

Financial Feasibility cont....

Operating Cost:
- Staffing
- Mission schedules and support
- Maintenance of equipment

Operating Cost with State support
- Security
- Utility
Financing

- Capital Contribution by organization members of $50,000 each
- Funding support from state government for Land, Infrastructure, permits and security
- Funding from NGO for liquid financing and equipment financing
- Funding support from stakeholders
- Subsidized loan from International banking agencies.
Organizational Structure

All organization members are involved in all the various structure presently.
Organization Set up

- Joint Venture-association of two or more individuals or companies engaged in a solitary business enterprise for profit without actual partnership –cons-less binding, no partnership

- Partnership: An association of two or more persons engaged in a business enterprise in which the profits and losses are shared proportionally.

- Non profit versus For profit: A nonprofit organization is formed for the common good of the public, our goal is for the goodness of humanity

- Philanthropic: Choice of above will be primarily to fulfil this goal. NNMF is set up to be a non profit organization.
NMMF Operating agreement

- Board of 11 directors and equal partnership in person or organization
- Initial Capitalization and investment as loan between $50,000 per member at 5% interest
- Local partnership to hire local provider
- Must be run like a business to survive
- Innovation and transparency will guide all operating management
Board Members

There will be 11 total board members, below are original and current members.

- Patrick Tyrance Jr., MD
- Adeteju Ogunrinde, MD, FAAP
- Godwin Ugwueze, MD
- Ali Ali
Our humane duty to Nigeria

“You must not lose faith in humanity. Humanity is like an ocean; if a few drops of the ocean are dirty, the ocean does not become dirty.”

— Mahatma Gandhi

We can make a difference no matter how corrupt Nigeria is.
Contact for Memorandum of Understanding

- Adeteju Ogunrinde, MD. MBA 2015
  dro@childrenshcmd.com  Phone/Text: 301-785-5476
- Ali Ali MBA 2015
  aliali@gwmail.gwu.edu
- Godwin U MD, MBA 2015
  gugwueze@gwu.edu
- Patrick Tyrance Jr. MD, MBA 2015
  ptyrance@gmail.com
Pitfalls in Volunteering Abroad
A case studies


“Many organizations have programs that rely solely on visiting volunteers to provide healthcare or other services. Due to high costs, schedule constraints and complicated logistics, these global health endeavors take the form of short-term medical missions, which undermine the local health care system, cause significant harm, and reinforce poverty. Medical missions or “volunteer vacations” can be seen as:

1. self-serving: providing value for visitors without benefitting the local community,
2. failing to meet expectations: sending volunteers who do not have appropriate language or medical training or accountability,
3. ineffective: providing temporary, short-term therapies that fail to address root causes,
4. Imposing burdens on local health facilities: providing culturally irrelevant or disparaging care and leaving behind medical waste, and
5. inappropriate: failing to follow current standards of healthcare delivery or public health programs.”