Global Health Delivery

How to Launch an Emergency Health Delivery Call Center in Resource Poor Regions

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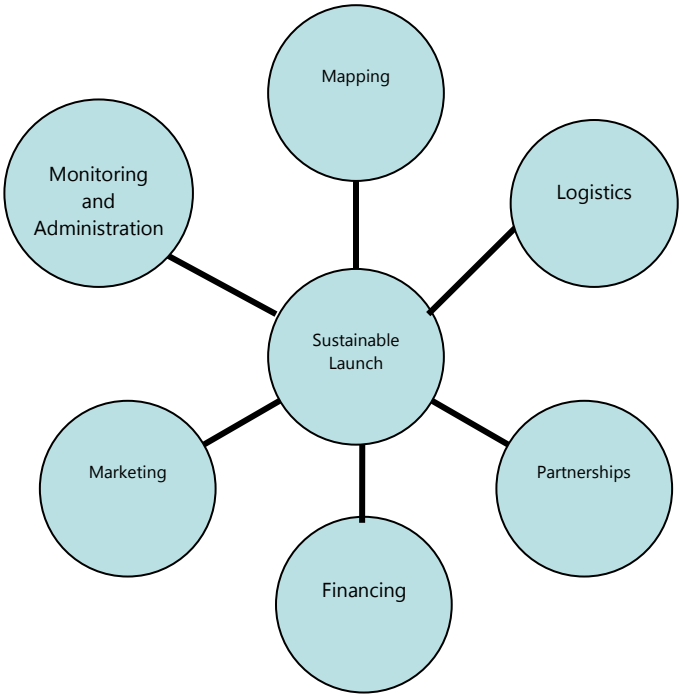
Introduction

Global Health Lab at MIT is a course that allows MBA students an opportunity to apply their business acumen to improve real health delivery challenges in developing economies. During the fall 2009 semester, I worked with KenCall, a call center in Nairobi Kenya.

KenCall is Kenya's largest contact center operating globally and providing call center and Business Process Outsourcing (BPO) services to organizations worldwide. KenCall offers experience in customer care, telesales, technical support, customer acquisition, web chat services and BPO. Its business is built upon world-class technology infrastructure and operations.[1]

KenCall has realized success as a call center, still CEO Nik Nesbitt has a vision of expanding into the health delivery space. Nesbitt believes that KenCall can use its core competencies as a functioning call center to be the main point of contact between a caller in need of emergency services and organizations that have the ability to deliver such services.

The purpose of this manual is to provide guidance on how an organization like KenCall can launch an emergency call center in a developing economy. It highlights some of the essential components necessary for a sustainable launch via a framework that I constructed based on the dynamics of Nairobi, Kenya. These six elements can also be applied to other emergency service call center launches in resource poor regions.



I wrote this manual with the hope that someone else will build off of my established framework for the creation of an emergency health delivery call center. I do approve the addition of content that enhances the mission of this manual. Please feel free to contact me at hturner@sloan.mit.edu if you have any questions regarding this material.

[1] KenCall. http://www.kencall.com/index.php/site/about/. Accessed on October 25, 2009.

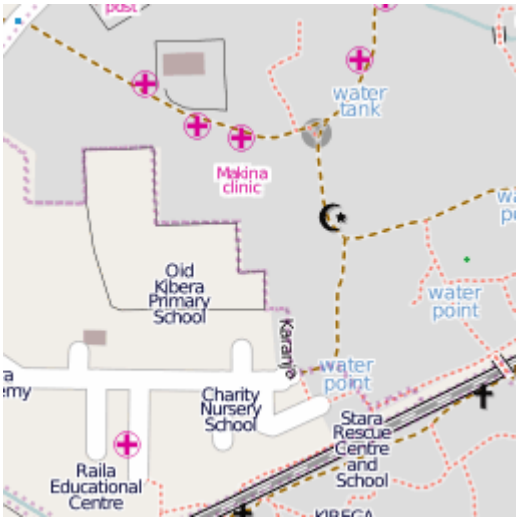
Section 1 – Mapping

Mapping the identified region and the availability of resources is critical prior to the launch of an emergency health delivery call center.

Mapping of the Identified Region

Most resource poor regions do not have the luxury of having access to reliable detailed maps that give an accurate picture of land characteristics. This is specifically challenging for areas identified as slums. One creative way that a youth group was able to map their region was via GPS technology. In the article titled *Youth Group Puts Their Kibera Neighbourhood on Digital Map,* the author Susan Anyangu-Amu documents how the organization OpenStreetMap was able to empower Kibera youth to map their community. The author shows that non-governmental organizations, private and public companies can ascertain the necessary services needed in complicated areas such as the Kibera slum through creative technologies such as digital maps. [2]

Below is a snapshot of a small section of OpenStreetMap's digital map of the Kibera slum.[3]



A company can use these resources to improve upon their chances of successfully penetrating areas that were once categorized as impenetrable. Further, a company can pinpoint and access certain resources within the community such as educational centers, religious organizations, and NGOs. This has the potential to allow the company to reach an economically diverse population through various partnerships and educational campaigns.

Mapping of Resources

KenCall made it clear to me that they did not want the liability of owning their own ambulances. So the specific resource mapping that needed to take place was the mapping of ambulances in the identified region.

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[2] Anyangu-Amu, Susan. *Youth Group Puts Their Kibera Neighbourhood on Digital Map.* http://www.businessdailyafrica.com/-/539546/836680/-/item/0/-/vthug0z/-/index.html. Accessed February 7, 2010.

[3] http://www.openstreetmap.org/. Accessed February 7, 2010.

This was critical for KenCall and is critical for any company that seeks to launch an emergency services call center, but desires to reduce their liability of owning the actual ambulances.

Prior to my arrival on site, KenCall surveyed various ambulance providers and asked the following questions:

Do you have emergency ambulance vehicles?
How many vehicles do you have?
How can I contact your vehicle in case of an emergency?
Which geographical areas do you cover?
How long does it take your vehicle to reach the scene on average?
What happens if your vehicles are not available at the time of an emergency?
How much do you charge for a transport?

Below are the responses to the survey:

The amount of useable ambulances available in the Nairobi region was approximately ten. This was not significant enough to cover the entire city (approximately 3 million people) for emergency health delivery services. The next step for the company would be to identify partnerships (public and/or private) that would be willing to finance the purchase of additional ambulances and to partner with current ambulance service providers.

The National Hospital Insurance Fund (NHIF) was identified by Kencall as a major purchaser of ambulances. NHIF's core function is to collect contributions from all Kenyans earning an income of over Ksh 1000 ($12) and pay hospital benefits out of the contributions to members and their declared dependants (spouse and children). NHIF is the only health insurance provider of its kind in the region. As a leading health insurance provider, it is committed to maintaining its position in the region. [4]

Any company seeking a meaningful partnership that reduces risk, financial exposure and future liabilities would be wise to partner with a leading health organization and/or company in the region.

[4] http://www.nhif.or.ke/healthinsurance/. Accessed January 7, 2010.

I took a meeting with Marwa Chacha from NHIF Thursday, January 7, 2010. After discussing KenCall's goals to provide emergency medical service delivery via its call center core competencies, NHIF was excited to contribute its services. NHIF was designated a key partner for the pilot launch and agreed to the following:

- Provide a list of medical institutions to be involved in the trial (including ratings of the identified institutions).

- Define ambulance levels and according criteria that need to be met (type of ambulance and personnel involved (standards specific to Kenya).

- Decide on ambulances to be included in trial based on the above parameters.

- Accredit ambulances according to defined levels.

- Finance additional ambulances needed for trial.

NHIF has many resources that KenCall needs for the launch of the pilot. A legitimate partner with financial resources such as NHIF is necessary for risk reduction and the sustainability of the project.

Section 2 - Logistics

I have identified several logistical components that should be analyzed during this particular pilot launch.

(1) Logistics for the overall system

(2) Logistical procedures for the call center

(3) Logistics for procuring necessary equipment

(4) Logistics for communication

Logistics for the Overall System

The company engaged in the pilot launch would need to define overall logistics and communication systems between the call center and the ambulatory service providers. Additionally, the physical borders of coverage need to be clearly defined. The location of the initial pilot should be strategically assessed prior to launch. KenCall identified Nairobi West as the ideal region mainly because of its economic and tribal diversity.

The company would also need to determine how they would like to respond to callers outside of their defined region. They can choose to provide ambulatory services and run the risk of capacity and time constraints. Additionally, they can refer the caller to another service provider or they can simply say they do not service that particular region and run the risk of bad publicity for non responsiveness. Each logistical decision carries a serious challenge.

Successfully showing proof of concept is critical to the expansion and sustainability of the pilot. I have identified eight components which significantly contribute to the success of a particular area. Each component is not weighted the same and must be incorporated into a rubric to determine the ideal location for the pilot launch. The weight to each category can be assessed according to specific levels of importance for the targeted community.

- Economic Status of Recipients/Diversity of the Region
- Visibility
- Hospitals
- Population Density
- Activity of the Area
- Ambulances in the Area and their Capabilities
- Scalability
- Accessibility

I have defined each category accordingly:

Economic Status of Recipients/Diversity of the Region

The economic status of recipients is an indicator of a particular regions ability to pay for services. If the goal of the pilot is to immediately turn a profit, the economic status of the recipient population would be weighted higher than a program whose primary goal is to initially achieve sustainability. Further, the economic status of recipients could be an indicator of the density of the particular area being serviced. If you do not have the capability to service a large number of people within a small space initially, a densely populated area may not be ideal for an initial pilot launch.

It is also important to incorporate tribal diversity of the region into the analysis. It is important for private industry to not appear as if they are catering to a specified tribe, so the incorporation of diversity of tribes within the identified region is necessary.

For KenCall, I have identified the following areas as homogenous tribal areas that should not be singularly engaged: Mather Valley, Kibera, North Nairobi, and Kawangware.

Visibility

Visibility of the pilot launch is critical to the sustainability of the program. KenCall should make a concerted effort to make their emergency call center initiative visible to the public, government, potential partners and competitors. Visibility of a successful pilot achieves buy-in from key stakeholders and potential customers. This is critical for pilot expansion.

Government and potential partner buy-in is critical as well. Once the pilot program demonstrates proof of concept, these entities are more likely to support, subsidize, and even financially sustain such a program. Finally, once prospective entrants are aware of a viable player in the emergency call-center space, they are less inclined to enter due to the significant first-mover advantage gained by the initial entrant. Barriers to entry increase exponentially once there is a player in the emergency services space and people are comfortable dialing a specific number for emergency services.

Hospitals

Hospital partners should be able to treat the injuries prevalent in the identified region. If the receiving hospital is open and capable to treat patients that were funneled through the emergency call center, and they successfully receive and treat those patients, the proof of concept is further legitimized.

Hospital buy-in is important for the initial launch of the pilot. A positive endorsement from recipient hospitals on the efficiency of the emergency service provided relative to current offerings will bode well for the sustainability of the emergency call center program.

Population Density

The company launching the initiative would need to determine the population density of the region it has identified in order to assess the capacity constraints of the call center. Further, if the call center is assumed to not be working at capacity, transfer pricing can be used to reduce costs.

The call center should have the capacity to withstand certain call volumes based on the population density of the targeted region. The dispatchers should not be over or under subscribed. Based on my analysis, I concluded the following (wo)man hours are necessary to sustain the identified Nairobi West Region for KenCall's pilot launch (I assume a population of 1.22 M people served based on the amount of NHIF subscribers):

Total cost per emergency agent hour ($/hour)	2.75	Assuming a $600 per month salary
Total cost per medical advice agent hour ($/hour)	3.75	Considering a higher cost for the medical advice
Total rate utlization of emergency agents	30%	Rough guess taking into account levels of other accounts
Total rate utlization of medical advice agents	30%	Rough guess taking into account levels of other accounts

COSTS

	Emergency					Non-emergency	Medical advice				TOTAL
	First response	Dispatching ambulances	Alerting other Services	Other	Total emergency	Total Non-emergency	General medical advice	Other	Other	Total Medical advice	TOTAL
Amount of daily effective time (hour)	0.52	0.34	0.13	0.00	0.99	0.09	0.63	0.00	0.00	0.63	1.71
Amount of yearly effective time (hour)	189.97	123.48	47.02	0.00	360.48	31.35	231.00	0.00	0.00	231.00	622.82
Amount of yearly agent time (hour)	633.25	411.61	156.73	0.00	1,201.59	9.40	69.30	0.00	0.00	69.30	1,280.29

Assumption: Start with 3 lines	
6 Agents per day servicing lines (working at 30% capacity per agent)	
3 regular agents and 3 medical advice agents	
Daily Wage for non medical agents combined	66
Daily wage for medical agents combined (3)	90
Monthly Salary for non medical agents combined	**1,848**
Monthly Salary for medical agents combined	**2,520**
Total year cost (Salary of Non Medical Agents Combined)	**22,176**
Total year cost (Salary of Medical Agents Combined Only)	**30,240**
Total Salary Cost	**52,416**
Other Cost Related to Servicing i.e. Training	**15,725**
Total Annual Cost	**68,141**

Maximum capacity for regular agents
1.07 hours pers day spent servicing emergencies
Assuming an 8 hour work day per agent
22.93 hours left for other servicing that can be spread via other service offerings with KenCall

Activity of the Area

The activity of the area is a determinant of the call center's ability to efficiently respond to caller's requests. The expected number of medical emergency calls per 1000 people should be considered in determining the call center's abilities as they relate to the identified location. In the research I conducted, I found the Oxford University Press article titled *Emergency Call Work-Load, Deprivation and Population Density; an Investigation into Ambulance Services Across England* by Philip J. Peacock and Janet L. Peacock quite helpful.[5] I concluded the following about the Nairobi West population density and implied call volume:

- Nairobi West incorporates one of the largest slums in Africa, Kibera, with an assumed 1.2M people covering a mere 2.5 square kilometers.
- Nairobi's population is estimated to be 3 million people.
- Nairobi West covers approximately 80 kilometers squared.
- If I average the population density I arrive at an average of 15K people per square kilometer in the identified region.
- If we assume call volume on a per 1000 person basis, the amount of calls received is enormous!

However, since we need to control for adoption and buy-in, it is reasonable to assume a call volume based on current standards around 50 calls per day. It is not unreasonable to assume that the density of people will impact call volume. According to the Peacock report, "we conclude that areas with higher population density have higher call rates, which is not explained by deprivation (page 111)." However, it is still critical to control for initial buy-in by potential users.

The market hypothesis on the following page is an example of how to assess call volume in the initial launch of the pilot. I have estimated an average of 49 calls per day based on data specific to Nairobi, Kenya as well as data for the United States, London, and Canada[6]. From this, I can estimate capacity constraints.

[5] Peacock, Philip J. and Janet L. Peacock. Emergency Call Work-Load, Deprivation and Population Density: an Investigation into Ambulance Services Across England. Oxford University Press. 2006.

[6] http://www.dgmarket.com/tenders/np-notice.do~3747817. Accessed on February 10, 2010.

Market Hypothesis for Pilot:

3,000,000.00		1000		
	Total	**# / year · 1000 people**	**# day**	**# year**
Base				
# of people served for **emergency**	1,221,264			
# of people pay **emergency calls** through **insurance company**	900,000			
# of people pay **emergency calls** per **phone call (not insured)**	321,264			
# of people served for **medical advice**	900,000			
# of people pay **medical advice** through **insurance company**	540,000			
# of people pay **medical advice** per **phone call**	360,000			
# of calls Nairobi West Pilot				
# of **emergency** calls Total		5	16	5,699
# of **non-emergency** calls		8	26	9,404
# of **medical advice** calls		3	8	2,772
# of calls		15.4	49	18,807
Required services per **emergency** call (%)				
First response	100.0%	5	16	5,699
Dispatching ambulances	65.0%	3	10	3,705
Alerting other Services	33.0%	2	5	1,881
Other	0.0%	0	0	0
Average time spent on each **emergency** call service (Min)				
First response	2.00		31.23	
Dispatching ambulances	2.00		20.30	
Alerting other Services	1.50		7.73	
Other	0.50		5.23	
Required services per **medical advice** call (%)				
General medical advice	100.0%	3	8	3,761
Other	0.0%	0	0	0
Other	0.0%	0	0	0
Average time spent on each **medical advice** call service (Min)				
General medical advice	5.00		37.9726	
Other	0.00			
Other	0.00			
Average time spent on **emergency** calls (Min)	3.80			
Average time spent on **non-emergency** calls (Min)	0.20			
Average time spent on **medical advice** calls (Min)	5.00			
Total Minutes per day servicing people			102.46	
Total hours per day spent servicing people			1.707664	

Subscribers to NHIF in region

In US 153, in London 140.1 for the same city population density. Assume London for all of Nairobi then multiply by the actual population percentage (11%).

In Lithuania the multiplying emergency call factor was 1.6.

11% of London's call volume of 140.1.

Based on statistics from US and Canada. Canada 60% emergency 40% non-emergency in a reduced call volume of 150,000 in the 1970s.

Ambulances in the Area and Their Capabilities

The amount of available ambulances in the area determines capacity constraints and whether the available ambulances are capable of treating the amount of people in the identified region.

Scalability

Physical and economic barriers to scalability need to be properly assessed and weighted. For KenCall, anything near the border of the national park is restricted to scalability, the area is not likely to grow. Economic barriers to scale should also be properly analyzed. If the call center approaches the pilot with a goal of providing free services to the largest region, but sustainability is not properly assessed, the program will not be able to scale due to restrictions in funds available for expansion.

Accessibility

Traffic, road conditions, and road sizes could impinge upon a successful launch of the pilot. The ability for an emergency vehicle to reach a patient and successfully transport them to a viable nearby medical center can make or break a pilot launch. If the hospital cannot reach an individual because roads are too small or damaged and/or traffic is too congested, the legitimacy of the program is in question and can affect the program's continued operations due to the reduction of consumer, government, and potential partner buy-in.

Note: one way to circumvent some of the obstacles that a traditional ambulance may have in reaching a patient is through the Riders for Health model. Riders for Health has successfully outfitted motorbikes with sidecars to reach areas once considered unreachable.[7] For KenCall, this could be useful for the penetration of slums such as Kibera.

<u>Logistical Procedures for the Call Center</u>

The company would need to define call receipt and dispatch protocols and required personnel for handling the receipt of calls. The company would also need to recruit qualified staff for dispatch, prepare dispatch training materials, train dispatch staff, and determine the staffing roster.

Much of the training can be based on common international standards of emergency call center response or a tailored response specifically for Kenya's needs as defined by key stakeholders such as hospitals, ambulatory services, NHIF and the government.

In order to reduce the risk of mistakes, it is recommended that a qualified medically trained staff be on call at all times to assess emergency response needs. Note, the importance of ambulatory servicing is evidenced in the care provided from the emergency site to the hospital. If the proper care isn't given then the mission is not being fulfilled.

[7] http://www.riders.org/us/default.aspx . Accessed on February 9, 2010.

Logistics for Procuring Necessary Equipment

The company would need to select and procure appropriate GPS equipment to be fitted into the ambulance for monitoring. It is important to know whether an ambulance is reaching the desired location within a reasonable amount of time (under 15 minutes).

To keep the Company's desire to reduce liabilities, the GPS equipment should be sold to ambulance providers and installed for a reasonable fee.

Logistics for Communication

Telecommunications Providers

The Company would need to determine and negotiate the ideal terms for telecommunications providers. Whether it is in the telecommunication provider's best interest to reduce or completely eliminate the fee charged to a caller for the use of an emergency number is on a case by case basis. However, the company can provide options that would appeal to telecommunications providers such as advertising on ambulances in exchange for a reduction in the amount charged to callers for placing the call.

Contact Protocols with Participating Ambulances

The company would need to define contact protocols with participating ambulances and hospitals and location processes. Many resource poor regions don't have street signs or formal markers that make it easy to identify a caller's location. The company would need to define the most efficient and effective way to locate a victim.

Obtaining a Short Code Number

The company would also have to obtain a short code number (3 digit number). Obtaining a proper emergency number is critical to the launch of a successful emergency health delivery service. In developing economies, there usually isn't a formal structure identified for obtaining this kind of number. Much of the resources are realized through previously established relationships most likely with the Ministry of Communications.

For Kenya, the Kenya Communications Regulations 2001 clarifies the 1998 Kenya Communications Act via a policy statement. The policy statement defines the policy backdrop within which the telecommunications, radio communication and postal services would be operated and provides a framework for the introduction of certain structural changes in the sector. For a numbering license, the Communications Commission of Kenya (CCK) must be satisfied that an applicant has sufficient resources, experience, skills and expertise to put the scarce resources underlying such a license to efficient use, while meeting license obligations, and sustaining its operations. Examples of such licenses are fixed network and mobile operator licenses.[8]

The Ministry of Information and Communication usually is the point of contact for obtaining a short code number specifically classified for emergency services. The process could be significantly expedited if an individual within the company/organization is affiliated with a top ranking official within this ministry.[9]

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[8] http://www.cck.go.ke/licensing_information/. Accessed on January 9, 2010

[9] http://www.cck.go.ke/licensing_application_forms/. Accessed January 9, 2010.

For a broad reference for international standards please refer to the International Telecommunication Union ITU-T Rec. E.106, "International Emergency Preference Scheme (IEPS) for disaster relief operations."

This form provides guidance to help Member States who are in the process of selecting a single emergency number for the first time or selecting a secondary alternative emergency number for public telecommunications networks.[10]

Once a number is obtained it is immediately used (specifically if the number is free to dial), regardless of whether the program is ready for launch. To minimize the potential for error, ineffectiveness, or inefficiency, the number should not be obtained until the program is ready for a proper launch.

[10] http://www.itu.int/ITU-T/studygroups/com02/tdr/. Accessed January 8, 2010.

Section 3 - Partnerships

In resource poor settings, public private partnerships (PPP) can be considered one solution for delivering goods and services when typical market incentives prove insufficient.[11] Coordination and burden sharing between different partners increases that chances that the emergency delivery system will be sustainable. Securing partnerships reduces the amount of risk, increases the legitimacy of the larger pilot launch, increases the financial pool available for expansion, reduces cost, and decreases the time it takes to scale. From the perspective of private concerns, PPPs take some of the risk off the table-especially market risk and financing risk-allowing them to participate in an effort that otherwise seems unappealing.[12]

KenCall, and other organizations in resource poor regions seeking to establish an emergency health delivery call center, have three priority partnerships for consideration:

(1) Insurance Companies

(2) Hospitals

(3) Independent Ambulance Providers

Insurance Companies

Achieving partnerships with insurance companies solidifies a guaranteed revenue scheme for the agent (i.e. KenCall). By entering into a joint project proposal and signing a letter of intent for the launch of a pilot, the private agent can ensure that the cost of the initial launch will be reduced due to some formal revenue generation agreement.

The agent (i.e. KenCall) as a third party can also provide a secure form of accounting for the actual number of ambulances disbursed. This will minimize the amount of corruption that may stem from different ambulance providers overbooking their actual involvement in delivering patients to hospitals. The agent's role as a reliable third party reduces the risk of uncertainty on the part of insurance companies as they reimburse for services rendered.

Hospitals

Hospitals sometimes provide their own ambulatory services. Thus, a partnership reduces the liability of the call center having to own their own ambulances. Further, hospitals will be receiving the individual in need of emergency servicing. To have their buy-in and their commitment to properly receive and treat patients in need of emergency health care is essential for a successful launch. The call center wants to be able to acknowledge that they reduced the amount of people that would have died otherwise as a result of a lack of emergency medical response. Without the hospitals willingness to treat in a timely manner, that claim may not be realized.

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[11] Rodriguez, William, Andrew Ellner et al. Organizations and Incentives in the Global Health Care Delivery Value Chain. 2009.

[12] Rodriguez, William, Andrew Ellner et al. Organizations and Incentives in the Global Health Care Delivery Value Chain. 2009.

Independent Ambulance Providers

To reduce the financial liability of owning ambulances, the call center must partner with current ambulatory services. They should be ensured that the ambulance provider has a medical technician qualified to administer adequate medical services. This should be part of the criteria in order to become a partner in the pilot.

Section 4 - Financing

The company should determine the overall financial payment flows between the caller, insurance companies, and partners who have agreed to subsidize for the service that the emergency delivery call center provides. The company would also need to determine the reimbursement rates to ambulances for the dispatch.

I have developed a financial model which seeks to identify the amount to be charged in order to create a sustainable structure. Further, we cannot assume that the system will have complete buy-in and capacity will be fully realized upon launch. So, a transfer pricing model has also been incorporated.

In the revenue hypothesis, I assume that KenCall will charge the insurance provider $.90 per call and charge $1 (premium) to the uninsured. We have a negative EBT due to the significant costs associated with keeping 3 medically trained staffers on call at all times and not yet realizing the benefits of medical advice disbursement. The negative EBT is also attributed to the fact that capacity will not be fully utilized initially. As mentioned earlier in the manual, we assume 49 calls per day which is approximately 1.7 hours per day, leaving a significant amount of time available for other calls to be taken. We can reduce the negative effects of this via transfer pricing.[13]

Revenue Hypothesis For Nairobi West Pilot							
		$/Dispatch	**$/subscriber Dispatch**				
Prices charged						Converted to KS	
Price per emergency insurance subscriber			0.9			67.5	
Price per medical advice insurance subscriber							
Premium per emergency phone call		1.0				75	
Premium per medical advice phone call							
900,000	people covered by NHIF in identified region						
1,221,264	Assumed Nairobi West Population						
26%	Non insured people						
Revenues							
Revenues from emergency subscribers for Dispatch	2,457						
Revenues from emergency non-subscribers Dispatch	975						
Total Year Revenues for Dispatch	**3,432**						
Without Medical Advice (EBT)	**-64,709**						
Cost will have to be spread across other servicings to lower the amount charged per dispatch and to scale							

[13] Note: The exchange rate used for dollars to KS was 75 KS per $1.

	Dispatch of Ambulance Reimbursement COSTS				
		# / year · 1000 people	# day	# year	Annual Converted to $
KS	Range	**3**	**10**	**3,705**	
2,000	Low KS	6,066.67	20,298.64	7,409,004	98,787
4,250	Mid KS	12,891.67	43,134.61	15,744,133	209,922
6,500	Hi KS	19,716.67	65,970.58	24,079,262	321,057

Daily Transfer Pricing for Dispatch					
Earnings at current capacity	9	per	1.07	hrs	
When at capacity earnings are	**210.1872**		22.36		
	for non medical agents				
EBT of non medical agents	98.65	per day			
EBT with medical agents	11	per day			

Note: Until medical advice brings in revenue, the cost to have 3 medical agents on staff daily will be negative since the Company cannot realize the benefits of transfer pricing to other areas within KenCall.

These numbers are dynamic and dependent on the amount charged to the insurance subscribe and the caller who is charged a premium. In order to break even without the transfer pricing, the insurance provider would need to be charged $18 per call and the premium caller $19.50 (obviously this is unrealistic). The price you charge and the way resources are distributed throughout the company is a huge factor as to whether or not the project is sustainable.

Section 5 - Marketing

Marketing is a critical component for the successful launch of an emergency services call center. Regardless of whether all of the other elements are successfully in place, if the community you are targeting doesn't achieve proper buy-in, the entire project falls apart. Some of the critical questions that need to be ascertained are the following:

Who is my Market[14]?

KenCall is known for its call center core-capabilities. Specializing and focusing on those capabilities will position the Company for domination within the emergency call center space. Adding additional capabilities such as owning ambulances may equip KenCall with the opportunity to launch at a faster rate, but it sets the Company up for additional risk in the long run. Specializing lets you dominate the market. Any company considering launching a similar initiative should consider this.

I have identified three services that an emergency call center should consider in the identification of their market:

(1) A subscription service where they would only respond to individuals who paid a monthly or annual subscription fee (for KenCall most likely upper class Kenyans).

(2) The entire population of the targeted region.

(3) Those who procure emergency services on the behalf of the injured (i.e. insurance companies like NHIF in Kenya).

After KenCall examined their mission and goals, they decided that although it was financially less risky to have the subscription service, to turn customers away from using the short code number for emergency services would have been bad publicity. This would not have been a financially savvy move in the long run. KenCall chose to have options 2 and 3 as their identified market.

How Can I Find Clients and Prospects[15]?

After identifying the market opportunity for such services, the company has to decide its strategy for attracting those customers. For the entire population, the company could initiate education campaigns or choose to partner with organizations that have health education campaigns in the targeted region. As discussed earlier, OpenStreetMap was a great digital tool used to map out one of the largest slums in Africa. Religious centers were identified in the region and so were NGOs. These organizations could potentially be the first customers to buy-in to the emergency call center service and actively promote the service in the community. Understanding the demographics of the region allows you to properly target your prospective clients.

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[14] Benun, Ilise and Peleg Top. The Designer's Guide to Marketing and Pricing: How to Win Clients and what to Charge Them. How Books. Cincinnati, Ohio. 2008.

[15] Benun, Ilise and Peleg Top. The Designer's Guide to Marketing and Pricing: How to Win Clients and what to Charge Them. How Books. Cincinnati, Ohio. 2008.

How Should I Present Myself[16]?

KenCall, and any other organization hoping to launch a similar service, would need to brand their new emergency services call center. The initiative would need to stand out from the crowd. Thus, the company would need to develop a strategy that focused on brand recognition, preferences, loyalty, and trust among prospective customers and those who function in emergency services industry[17]. The company would need to convey a clear message about its service offerings and position itself in relation to the needs of prospective clients.

KenCall struggled over two ways of branding and positioning its emergency services call center:

(1) A division of KenCall, labeled FirstCall, a private Company

(2) A separate non-profit entity not affiliated with private industry

It's important that any company acknowledge the stigmas attached to both the private and public sector and incorporate that in their analysis for brand positioning. For KenCall, one thing was clear, they wanted their emergency call center initiative to be perceived as a professional and reliable business. Additionally, they wanted their prospective customers to know that when the number was called someone would answer and be on-site within 15 minutes. It chose to go with option one with the hopes that the private industry label would imply reliability and dependability in the long run.

Once the mission is clear and the name is chosen, the company should secure an online domain name affiliated with the company's mission and chosen name. Be conscious of any local taboos and attempt to avoid them in name selection.

Which Marketing Tools Should I Use[18]?

The marketing tools that should be used should be based on the popular networking techniques of the region. If the area is not an internet savvy region, it wouldn't be wise to launch an entire marketing campaign entirely online. For KenCall, I recommend that they educate the community in Nairobi West about the service and how to use it in schools, religious services, and NGO partnership events. KenCall should also initiate further measures to engage/prepare the targeted community (e.g. first aid courses). KenCall should also analyze other opportunities to support efforts (e.g. establish informational hotline), initiate organized marketing effort with billboards, postering, ads, etc., and initiate mailings to individuals insured by NHIF (over 1 million people in the identified region) detailing the service offering.

Direct targeted marketing efforts ensure that most of the potential customers are directly aware of the emergency number. Most importantly, it ensures that people know that the number will be a reliable source if one needed emergency services.

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[16] Benun, Ilise and Peleg Top. The Designer's Guide to Marketing and Pricing: How to Win Clients and what to Charge Them. How Books. Cincinnati, Ohio. 2008.

[17] Benun, Ilise and Peleg Top. The Designer's Guide to Marketing and Pricing: How to Win Clients and what to Charge Them. How Books. Cincinnati, Ohio. 2008.

[18] Benun, Ilise and Peleg Top. The Designer's Guide to Marketing and Pricing: How to Win Clients and what to Charge Them. How Books. Cincinnati, Ohio. 2008.

Section 6 - Monitoring and Administration

Continuous monitoring and administration improvements need to take place throughout the initial phases of the initiative. First, the company needs to determine the criteria necessary to assess the success of the emergency services trial. After launch, frequent checks (daily, then weekly, then monthly) need to be made to make sure quality standards are being realized (i.e. ambulances are reaching callers within the specified time frame and callers are being effectively and efficiently received by hospitals).

Additionally, the company would need to determine who is legally responsible for error in execution and how errors will be resolved. In conjunction with legal responsibility, the insurance structure needs to be established for law suits etc.

The company would also need to have weekly update meetings with its partners and its largest customers i.e. NHIF for KenCall. These "check-in" meetings and constant monitoring and administration tactics will prepare the company for further scale-up. A monitoring and administration checklist could typically include the following:

- Detailed analysis of project assets and potential assets for use in pre-launch and launch and whether assets are being fully utilized.
- Creation of surveys and other tactics for pre-launch feedback and overcoming objections.
- Fully understand customers' response to the emergency health delivery service and establishing customer service operating procedures for launch support.
- Determine potential entrants to the market and establish a strategy to maintain and expand customer base.
- Benchmark against competitors who may be launching within the same timeframe.
- As the initiative expands, benchmark subsequent launches against relevant historical launches.

The information provided from this type of feedback system will allow the company to recognize any flaws within their system and make efficient and effective improvements along the way. This solidifies a reputation of dependability and customer centricity within the region for the company.

Conclusion

There are many components that should be considered in launching an emergency call center in a resource poor region. I believe there are six critical elements that make up a framework that should be thoroughly analyzed prior to launch. These elements are mapping, logistics, partnerships, financing, marketing, and monitoring and administration. Once a thoughtful analysis of these elements has been conducted, a company can integrate their learnings into a project map which is critical for an organized execution. In the appendix I have included an example of a project map that I created for KenCall which takes into account all six elements within the established framework.

A project map can be revised during the process, but initially sets up a visual outline of the entire launch from start to finish. Further, it establishes internal accountability and accountability among various partners. By thoughtfully integrating the established six elements into a detailed plan for execution, a company can avoid major pitfalls that come with launching an emergency health delivery service, specifically a call center, in a resource poor setting.

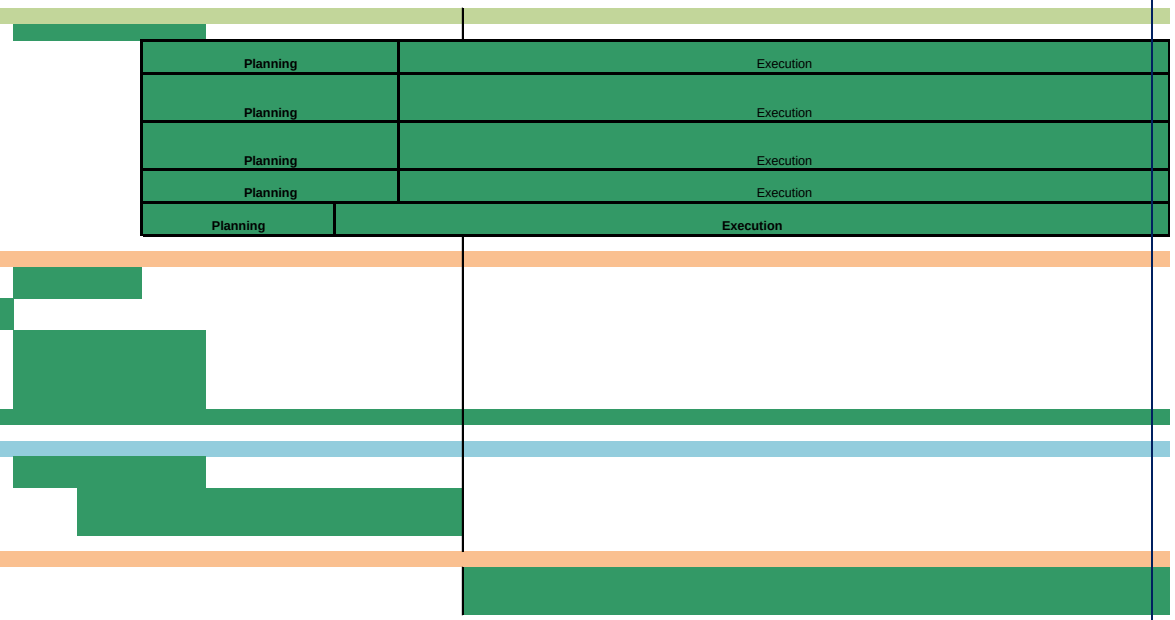
Appendix: Initial Project Map for KenCall as Defined by the Identified Elements

Period of workstream	
Deadline	TBD
Launch Date	March 1st

Task #	Work Breakdown Structure	Responsible	Individual Responsible	Completed?
	Launch of trial	KenCall, NHIF, TBD Ambulance Service(s)		TBD
1	**Mapping of ambulance resources**			
1.1	Provide list of medical institutions to be provided in the trial (incl. ratings)	NHIF Chacha		Partially Completed (missing a few hospitals)
1.2	Define ambulance levels and according criteria that need to be met (type of ambulance and personnel involved)	NHIF Medical Team, TBD Ambulance Service(s)		Provide to Team
1.3	Define financial reimbursement levels for ambulance providers	KenCall, NHIF, TBD Ambulance Service(s)		
1.4	Define all other rules and procedures for ambulance providers (average response time, ready time, procedures of transport, penalties etc.)	KenCall, NHIF, TBD Ambulance Service(s)		
1.5	Decide on ambulances to be included in trial	KenCall, NHIF, TBD Ambulance Service(s)		
1.6	Present agreements to ambulance providers and sign contracts	KenCall, NHIF, TBD Ambulance Service(s)		
1.7	Accredit ambulances according to defined levels	NHIF		
2	**Logistics**			
2.1	**Overall system**			
2.1.2	Define overall logistics and communication system	KenCall and TBD Ambulance Service(s)		
2.1.3	Define physical borders of Nairobi West District	KenCall and NHIF		Complete
2.1.4	Define areas of coverage per ambulance vehicle (which area during which times etc.)	KenCall		
2.1.5	Define contact protocols with participating ambulances and hospitals	KenCall, TBD Ambulance Service(s), and Area Hopsitals		
2.1.6	Define location process (how best to locate a victim)	KenCall		
2.1.7	Solve border issues (how to deal with people outside the pilot border)	NHIF/KenCall		
2.1.8	Obtain a short code number (3 digit number)	KenCall		
2.2	**CC procedure**			
2.2.1	Define call receipt and dispatch protocols and required personnel	KenCall		
2.2.2	Recruit qualified staff for dispatch	KenCall		
2.2.3	Prepare dispatch training materials	KenCall		
2.2.4	Train dispatch staff	KenCall		
2.2.5	Determine staffing roster	KenCall		
2.3	**Equipment**			
2.3.1	Select and procure appropriate GPS equipment	KenCall		
2.3.2	Sell equipment to ambulance providers and install	KenCall and TBD Ambulance Service(s)		
2.4	**Communications**			
2.4.1	Determine ideal terms for telecommunications providers	KenCall/NHIF		
2.4.2	Negotiate deals with telecommunications providers	KenCall/NHIF		
3	**Financing**			
3.1	Determine overall financial payment flows (NHIF, ambulance, KenCall)	KenCall, NHIF, TBD Ambulance Service(s)		
3.2	Determine reimbursement for KenCall for dispatch services	KenCall/NHIF		
3.3	Determine tracking system for ambulances (which ones actually went and to the right place)	KenCall and TBD Ambulance Service(s)		
3.4a	If KenCall pays ambulances			
3.4a.1	Determine reimbursement for KenCall for administration of system	KenCall/NHIF		
3.4a.2	Determine payment conditions - KenCall to ambulances, NHIF to KenCall	KenCall/NHIF		
3.4b	If NHIF pays ambulances	KenCall/NHIF		
3.4b.1	Determine reimbursement mechanisms (and ways of prove) for ambulances	KenCall/NHIF		
3.4b.2	Determine rates for non-members	KenCall/NHIF		

Appendix: Initial Project Map for KenCall as Defined by the Identified Elements (Cont.)

4	**Marketing**		
4.1	Develop overall marketing concept	KenCall and NHIF?	
4.2	Educate community in Nairobi West about service and how to use it	KenCall and NHIF	
4.3	Initiate further measures to engage/prepare community (e.g. first aid courses)	KenCall and NHIF	
4.4	Analyze other opportunities to support efforts (e.g. establish informational hotline)	KenCall	
4.5	Initiate organized marketing effort with billboards, postering, ads, etc.	KenCall	
4.6	Initiate mailings to NHIF insured in pilot area detailing the service offering	NHIF	
5	**Monitoring and Administration**		
5.1	Determine criteria to assess success of EMS trial	KenCall and NHIF	
5.2	Finalize the LOI Between KenCall and NHIF	KenCall and NHIF	
5.3	Determine who is legally responsible for error in execution	KenCall	
5.4	Determine insurance structure	KenCall	
5.5	Determine "guarantees" in policy implementation - what is that?	KenCall	
5.6	Weekly update meetings with NHIF	KenCall and NHIF	In Progress
6	**Special issues**		
6.1	Solve special issues (i.e. access to Kibera)	TBD	
6.2	Potentially procure special vehicles for Kibera penetration (i.e. outfitted motor bikes, outfitted bicycles, etc.)	TBD	
7	**Monitoring and Administration (Cont.)**		
7.1	Keep track of "lessons learned"	KenCall	
7.2	Measure and monitor criteria	KenCall and NHIF	
7.3	Preparation for further scale-up	KenCall	



Note: CC references call center procedures.