

# **The Systematic and Successful Implementation of Reengineering in Healthcare**

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**ABSTRACT:** *The new reality of healthcare organizations is to reduce cost and to increase patient satisfaction by improving the quality and outcomes of medical care. Toward that end, there is a need for a structured process improvement approach like reengineering that stresses defining the organization's problem from the perspective of the patient, process reconfiguration, measuring performance, and putting in place a plan for improvement. The paper posits that the effective and successful implementation of Business Process Reengineering (BPR) is only possible in hospital organizations' capable of instituting and sustaining the inter-relatedness that should exist between effective leadership, strategy, people and organizational agility. The paper would show through the use of a case study that Inter-relationship management is the approach for the successful implementation of reengineering in healthcare.*

**Keywords:** CSR, CFP, shareholders worth, meta-analysis, corporate managers.

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**B**usiness process is a sequence of activities that result in the delivery of valuable products or services to the customer (Hammer & Champy, 1993). This definition by itself, to say the least, would not result in delighted customers. For example, when organizational activities are performed sequentially as advocated by Hammer and Champy, physical and mental “walls” tend to build up between functional areas and project teams. As a consequence, the output from one work station is “thrown over the wall” to the next stage, with little discussion or feedback. A more enlightened definition of a business process should be the renewal of the inter-relationship of critical and supporting processes, structures and systems to aid the efficient planning, designing, production and timely delivery of products and services to the end customer (Nwabueze 1995).

Moreover, the essential activities that make up a process are not supposed to be sequential, but concurrent - requiring the input and involvement of process owners, suppliers, employees, customers and management (Nwabueze 2005). And, in the highly competitive healthcare market place, it is becoming evident that patients are in charge, and would determine the relevance and long-term survival of hospitals. Therefore, hospitals must now focus on building mutual beneficial and lasting business relationships with business partners, instituting a nurturing and fun work environment, and providing value each and every time a patient triggers action along the service value chain (Nwabueze 1995).

### **Reengineering in Healthcare**

Several studies (Coulson-Thomas 1997, Slack et al 2001, McDonough, McDonough, 1997), contend that the implementation of reengineering in a hospital system is to add value to the customer and meet their needs on a consistent basis. This is further endorsed by Soliman (1998) who contends that the key factors that affect the competitive position of healthcare organizations are cost, quality, delivery dependability, flexibility, and innovation, which requires a focus on process redesign and improvement to ensure an environment free of waste and non-value adding activities (Soliman 1989, Czuchry and Yasin, 2000). However, the essence of BPR in healthcare is best described by Davenport (1993) as seeking improvement across and within processes by examining flows of information, the patient, finance and materials. Nevertheless, these studies have two main limitations. The first major limitation is the lack of a definitive framework for the successful implementation of reengineering in a healthcare organization and the basis of their arguments is based on anecdotal rather than empirical evidence. The second limitation is the absence of an explanation and template for hospitals to use in

mapping and redesigning critical business and patient processes.

### **How do you redesign a Business Process?**

For Mackay and Radnor (1998), it is essential to first start with mapping the current process. This allows for the identification of duplication of effort, bottlenecks, and waste. A view supported by Hammer (1990) who asserts that a process must be fully understood before it can be reengineered. Although nobody disputes the need to scrutinize current processes, Talwar (1993) raises the question of timing; stating that some methodologies focus on the definition of strategy prior to the analysis of current operations. A key step in hospital process redesign, as far as the author is concerned, from a mapping perspective, is to use a basic process flow chart to understand the current process, design out the failure points, redesign and then configure the ideal process that would exceed patient expectation. In addition, the critical stages for redesigning processes are (Nwabueze 2005):

#### **1. Process Planning**

- a. Establish process objectives
- b. Identify process customers
- c. Determine customer needs and expectations
- d. Evaluate process limitations through the use of process flow charts or mapping
- e. Diagnose the causes

#### **2. Process Redesign**

- a. Determine idea process
- b. Totally redesign with emphasis on designing out failure points
- c. Set new process goals
- d. Establish process controls
- e. Choose units of measure
- f. Create process sensor

#### **3. Process Improvement**

- a. Measure actual performance
- b. Interpret the difference
- c. Institutionalize change
- d. Hold the gains
- e. Identify new processes
- f. Find new ways and not better ways for improvement

### **The Confusion – No Specific Plan for BPR Implementation**

The lack of a specific action plan for BPR is indicative of the general confusion over the subject of BPR, and much of this hinges on the importance attached to deep and radical change. Taylor and Berridge (2006) agrees with Hammer and Champy (1993) that BPR is the radical

transformation of a firm that offers a revolutionary, non-incremental approach to change. This is supported by Coulson-Thomas (1997) who breaks it down further into the radical redesign or re-building of individual processes, whole organizations or relationships between suppliers and customers. Despite this academic view, most practitioners within organizations are likely to pursue a more 'ad-hoc or pragmatic path' because the associated risk is far lower. Willocks (1995) undertook a study of BPR initiatives in 168 UK-based organizations (cited in Petu et al 1996), of which 46% reported achieving anticipated benefits from completed BPR programs and only 5% failure rate.

However, Fitzgerald and Murphy (1996) contradict this by stating that the majority of BPR projects fail or are abandoned without achieving the desired objective. This discrepancy occurs because of the fundamental lack of clarification on how BPR implementation should be approached. Where did BPR go wrong? Davenport (2008) contends that the most difficult part of BPR is dealing with fear and anxiety of employees in the organization and the fact that BPR treats people as if they are interchangeable parts. To punt is another way to understand the pitfall of BPR according to Davenport - whenever you separate an employee from the function (we need your function, but we do not know if we need you doing it), the result is a highly demoralized and disengaged work environment.

Bodnarreczuk (1997) suggests that as the BPR program begins and employees wait to see if they will be terminated, heaviness in "psychological space" develops to the point where you can "cut the air with a knife", thus the work culture is characterized by a sense of panic, anger and depression. However, these emotions are hidden underneath a veneer of civility characterized by a one way loyalty where management holds the power and people are viewed as throw-away employees (Noer 1993). Prokesch (1987) calls it a ruthless style of management that puts corporate survival above all else and the consequence is the rupture of cooperative relationship between management and employees, and decreased individual and organizational productivity (Bodnarreczuk 1997).

The challenges of BPR initiatives are both technical and socio-cultural. It is technically problematic to develop radical process improvements. The socio-cultural challenge is in dealing with people's reactions to the likely serious organizational changes required (Reijers and Mansar, 2005). Davenport (2008) views the primary reason of BPR failure as overemphasis on the tactical aspects and the strategic dimensions being compromised. He notes that most failures of reengineering are attributable to the process being viewed

and applied at tactical, rather than strategic levels. Ozcelik (2010) listed some other reasons for poor BPR outcomes: (i) expecting too much too soon, (ii) undertaking projects without a comprehensive cost-benefit analysis, (iii) lack of expertise on redesigning a set of related activities, and (iv) lack of partnership between internal information technology (IT) department and other parts of firms (Goksoy et al, 2012).

### Redesigning the Failure Points of BPR

Coulson-Thomas (1997) states that in the UK almost any successful change program is labeled as reengineering, therefore the impetus for radical change is lost. Davenport, et al (2003) takes a different perspective in stating that 'reengineering and quality improvements can exist in tandem, with BPR only applied when absolutely necessary. The implication being that BPR is nothing more than a short term strategy for organizational transformation (Myszak 2011). For effective implementation, Coulson-Thomas (1997) is an advocate of the radical approach and states that there are actually few independently validated cross-functional examples of BPR that have run full course. He believes that where incremental improvements are the required outcome, then the change strategy undertaken is not BPR, but process simplification, or process improvement (Tellis 1997) or 'continuous process improvement (Nwabueze 2012).

Other studies (Childe et al 1996) refute this argument identifying more than one acceptable approach depending on the extent of change required and the mechanism for intervention based on the needs and limitations of the business at the time of implementation. Grover et al (1993) cited in (Biazzo 1998), suggest that effective BPR implementation reflects a planned alignment between business process and information technology infrastructure as opposed to a simple automation of current processes'. However, it is important to note that the use of computer simulation models to enable a representation of a real-life system must not be understated, and studies such as Grassel and Schimer(2006 and Ruchala 1995) support this view. Whatever the academic persuasion of BPR, there seems to be a common agreement that the implementation of BPR should involve several critical factors (Champy 1995):

1. Radical transformation
2. Vision-led
3. Review framework
4. Introduce new technology
5. Change attitudes and behavior
6. Director led
7. Limited number of corporate initiatives

However, whilst these factors may be essential for BPR (Goksoy, et al, 2012 and Altinkemer, et al, 2012), the literature on BPR in the author's opinion, fails to recognize that the most important approach for successful implementation of BPR in healthcare; is Inter-relationship Management. This is demonstrated in the transformation framework used by the London hospital (Table 1).

Table 1

Reengineering the Patient Input Process	Reengineering the Patient Care Process	Reengineering the Delivery Process
To acquire medical materials in the right quality, quantity, and on-time requires open, honest, and reliable relationship with suppliers. A long-term partnering agreement was instituted with a few suppliers	To design the productive process to meet medical specifications, professional and patient requirements required streamlined operating processes that incorporated the voice of managers, employees and patients	To improve the delivery of care required the development of timely medical/nursing care plans

The lesson from Table 1 is that healthcare organizations embarking on BPR must ensure effective relationship with their suppliers, processors (healthcare providers), and patients. These interrelated partners must work cooperatively in a coordinated manner by sharing information and adhering to set and agreed standards. This is similar to good relations between a manufacturer, its customers, employees, suppliers and distributors, which have enabled some companies like Wal-Mart, make money. Moreso, effective and mutual beneficial relationship guarantees that a hospital and its partners involved in the patient value chain share the same goals (Nwabueze 2005). However, to succeed, healthcare organizations must control the bane of inter-relationship management – poor people management. This would require identifying and understanding the causes of poor people management skills on the part of middle level and senior managers, determining how it affects employee productivity and patient processes, and then, formulating ways to eliminate it. This is because no reengineering effort will succeed without a highly motivated and passionate people who will ultimately work the new process (Czuchry and Yasin 2011).

### The Philosophy of Inter-Relationship Management

Inter-relationship management rests on the analysis of what does work operationally rather than mere good intentions and promises by management of what should work because they would like it to. It is based on the concept of managerial driven governance. This means that organizations exist to serve and meet the needs of

customers on a consistent basis. And yet, most hospital systems remain process and patient blind (Lee 2009). The greatest irritant most patients' experience is the blatant disregard of their needs and unwillingness on the part of many healthcare providers to provide affordable and timely medical care (Lee 2009).

### Principles of Inter-Relationship Management

Inter-relationship management is underpinned by four elements (Nwabueze 2008):

Table 2

Leadership	People	Strategy	Organizational Agility

Using table 2 as a basis for explanation, the author is of the opinion that effective organizations first and foremost, need great, visionary leadership. The problems facing healthcare organizations today are; poor quality of patient care, lack of agility due to poor process flow, which has resulted in unreliable and unresponsive service. How would these problems be best solved? These problems can be overcome by management and employees acting collectively under a strategically focused and customer centric leader. It is also the author's suggestion that engaging and building a loving relationship with employees is critical to organizational performance. When healthcare organizations' pursue a human resource management policy focused on loyalty to employees, they in return, would take exceptional care of the customers through the provision of superior service (Nwabueze 2005). To achieve an employee centric environment in healthcare organizations would require the redesign of managerial systems (style of management, management work methods, attitudes, and behavior of all employees).

An understanding of the needs and aspirations of all employees is necessary for productive performance to be achieved and sustained. To put the paycheck mentality in perspective, the trademark of the survival based worker of today and some elements of the worker's self-perception should be understood by management, which entails the recognition and reward for his or her effort. This would ensure that employees play an empowered, supporting role in the attainment of organizational goals. In addition, the achievement of consistency in operations performance would require that healthcare organizations have in place a set of values and guiding principles in the form of a core ideological strategy. In an age of changing patient and regulatory needs, Nwabueze (2008) postulated, that strategic, operational, and leadership blindness in managing hospital organizations is a deadly flaw (Table 3).

Table 3: Strategic/Leadership/Operational folly by Hospital Organizations

Some hospitals have explicit strategy and are operationally incompetent	Many hospitals have no explicit strategy and are operationally incompetent
Few hospitals have explicit strategy and are operationally competent	Few hospitals are operational competent with explicit strategy and effective leadership

To succeed in the global environment, healthcare organizations must be extremely flexible, nimble, agile and adaptable to changing customer/patient medical needs; professional and regulatory requirements. This would require an explicit, well planned and executed strategy; ensuring a clear business purpose and matching competencies to the needs of the market place. The fourth element of inter-relationship management as evidenced in figure 2 is organizational agility. This element is the most important driver of performance because the environment within which people work shape attitudes and behavior (Nwabueze 1995). Therefore, the work environment should have a proactive culture, productive processes, systems and structures. It is imperative to align rewards and incentives directly to the achievement of performance goals and to create a culture and work climate that ensures that policies and procedures facilitate rather than impede performance (Nwabueze 1995). However, a fundamental hindrance to performance is the fact that the operating system in many healthcare organizations reinforces the mentality that change, particularly radical change, is not necessary (Nwabueze 2005). As a result, one of the most important jobs of a leader in the implementation of BPR is to encourage and facilitate an organizational environment where people continuously challenge, and are fundamentally empowered to redesign those systems, processes and legacy structures that prevent great performance. The key is to never allow organizational systems serve themselves because employees are only as good as the systems and processes within which they work (Nwabueze 2005).

#### **Applying the Principles of Inter-relationship Management in a Hospital Environment**

BPR in the author's opinion is about liberating an organization like a hospital to do what is required of it by customers/patients in the most effective manner; it is therefore a weaving of relationship rather than down-sizing or right-sizing. By implication, BPR should include the mobilization of the intellectual capital within the organization; letting people have ownership of the processes within which they work, identification of service gaps and limitations, and then renewing poorly

aligned processes, structures and systems. This however, is not the case with most organizations implementing BPR because the programs are often big, complex, messy, and heavily layered with too many chiefs and not enough Indians (Nwabueze 1995). Along similar lines, several contemporary proponents of BPR offer change methodologies for the implementation of BPR, for example, Davenport and Short (1990, Solima 1998, and Kettinger *et al*, 1997). All of them more or less revolved around four generic stages: process identification, redesign, implementation and post implementation strategy or continuous improvement (Grover 2000). However, these contemporary writers fail to provide a check-list against which organizations can define "the critical success factors, and the how-to-do" implementation of BPR. What is therefore needed is an inter-relationship management based BPR approach used a hospital in London, U.K. (Table 5).

#### **The Case of a Healthcare Organisation's Experience of BPR**

The hospital system based in the East end of London, England was experiencing major challenges in 2008 in the form of:

- Lack of management understanding of patient expectation of service and processes of care were overrun with delay, wasted resources and rework
- Failure to translate patient expectations into quality care specifications
- Failure of employees to adhere to set standards of care and failure to follow service protocols
- Failure to communicate effectively with patients that resulted in disparity in quality of care provided and the poor identification of tasks
- Managerial failure to listen to staff suggestions for service and process improvement
- Low morale among employees and turf battles for resources – a siege mentality resulted in a culture of confusion
- Poor patient flows resulted in long waiting times and variable workloads for staff.

Three months before the reengineering program started the BPR manager conducted a survey of the reengineering team in hospital using a questionnaire based on Parasuraman *et al* (1985) service gaps model to measure gaps in the provision of patient services. The questionnaire asked the 10 person reengineering team to rate the organization on each of the seven gaps by circling a code of 3, 2, or 1. 3 for high ranking (we are good at this; I am confident of our skills here), 2 for medium score (we are spotty here, we could use improvement or more experience), and 1 for low score (we have problems with this; this is new to our organization). See (table 4):

Table 4:

GAPS	QUESTIONS	3	2	1	After BPR
Management Perception	Does management understand what patients expect of the service?	27%	27%	46%	100% @ 3. we are good at this
Service Quality Specifications	Do we translate knowledge of patients' expectations into quality specification, standards or guidelines?	33%	33%	34%	100% @ 3. we are good at this
Service Delivery	Are guidelines and standards for service adhered to?	29%	35%	36%	100% @ 3. we are good at this
External Communication	Do we communicate effectively to patients about our service?	13%	27%	60%	100% @ 3. we are good at this
Patient Expectation-Perception	Are we able to map the cycle of the patients moments of truth; that is the patients movement through our service – ensuring that patient's expectations equate to his/her expectations equate to his/her perception of the service provided	4%	10%	86%	100% @ 3. we are good at this
Internal Communication	Does our organization listen to contact staff about what the patient thinks of the services delivered?	27%	20%	53%	100% @ 3. we are good at this
Contact Staff	Is our staff empowered and trained in delivering quality service to patients?	16%	40%	44%	100% @ 3. we are good at this.

The service gap analysis above before the reengineering program revealed that the hospital provided services well below patient expectations and that of employees. As Parasuraman, et al (1985) contend, the presence of the seven gaps in any organization shows that the organization is not providing a quality service. As can be discerned from Table 4, the reengineering team rated the reengineering program on completion as emphatically successful by giving the program perfect scores(100%) in the elimination of service gaps that existed prior to implementation. This was achieved by putting the patient first, sustaining a patient care and caring cultural environment based on inter-relationship management approach. The second step by the 10 person reengineering team was to define the critical success factors that would

underpin the inter-relationship management approach (Table 5).

Table 5:

Phases	Critical Success Factors of Inter-relationship Management
Leadership - Set-Up Stage	Organize for process improvement: institute an organizational structure for process alignment. Identify service gaps Management behavior: ensure demonstrable leadership, commitment, and vision from top management to the Board of Trustees. Adopt a patient focused strategy. Communicate across functional areas: to all staff within departments and directorates.
Strategy - Get-Up Stage	Institute education and training. Institute a corporate quality agenda with the main purchaser. Process management: redesign and streamline critical work processes. Optimise care processes and systems. Involve the professional staff on a continual basis.
People - Stay-Up Stage	Involve and empower employees. Institute honesty: management should "create joy in work". Managers must "walk-the walk and walk-the talk". Institute robust systems for monitoring and measurement. Establish partnerships across value chain activities. Institute reward system.
Organisational Agility - Move-Up Stage	Review on a continual basis the quality process. Integrate into strategic Business Plan: delivery of quality of care should be a way of life. Institute an adaptive, socio-technical organizational culture

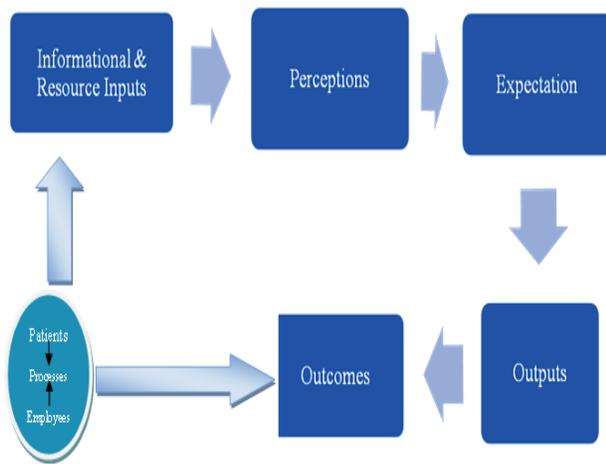
To ensure that the implementation of BPR succeeded and to avoid the fate that previous management programs at the hospital that promised revolution and true reform, but failed, the CEO mandated the reengineering team to work in concert with unit/ward managers to design a workable implementation model bearing in mind that the British National Health Service (NHS) is an institution where instant and short term results are necessary for survival in a climate of increasing external political change. Thus, the decision was made to adopt a model that would facilitate the achievement of a series of sustainable quick results based on process alignment. The overwhelming choice was to go with the inter-relationship model. Because traditional BPR models call for process improvement and most often fail to establish process redesign, alignment and improvement as the central focus of implementation- resulting in activity rather than results oriented outcomes, preaching change whilst maintaining the status-quo; and making progress merely around routine issues rather than on patients' choice(Nwabueze 2005).

### The Hospital's Process Model

The reengineering team after 5 weeks of extensive consultation with clinical and ward managers proposed a process-focused strategic model. The argument was posited that the model would help the hospital streamline,

redesign, strengthen and improve its critical operating processes around: arranging care, delivering care, and managing care. A major problem prior to reengineering was that the organization was task oriented and activity driven, but the process model reoriented work activities so that when a staff member arranged care for a patient, he/she followed that patient all the way through the provision of care; thus ensuring that there was no loss of communication, no missed opportunities and that the entire operating system worked much more effectively and efficiently for the patient and employees. The result oriented process model approach is represented in figure 1:

Figure 1:

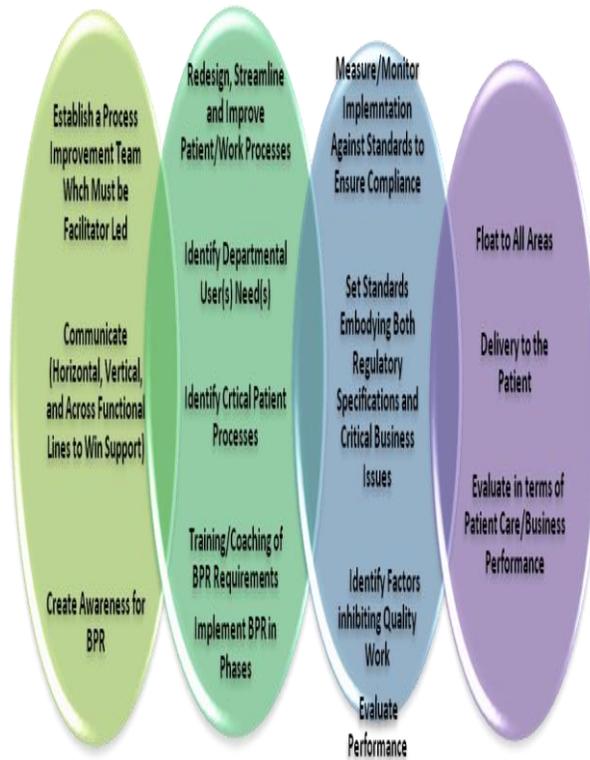


Using figure 1, the hospital concentrated on improving processes and ensured the holistic integration of the entire system: the inputs, throughput and outputs of care, which also represented the planning, managing and delivery of care. To do otherwise in the words of the CEO would have led to a situation where organizational structures would fail to work in a consistent, coordinated and complementary manner. Furthermore, to be consistent in the delivery of the critical aspects of care, unit managers were required to cascade and manage the implementation process using the “what to do” model (table 5—provided a check list of what needs to be done and potential pitfalls), and the “how to do” model to BPR (figure 2 – set out a protocol of the phased implementation steps/stages). The CEO was of the opinion that the high failure rate of BPR in healthcare is due to the lack of a healthcare based model that specifically articulates ‘the-what-to do and the how-to do’ of implementation.

Table 5: The What-To-Do of BPR

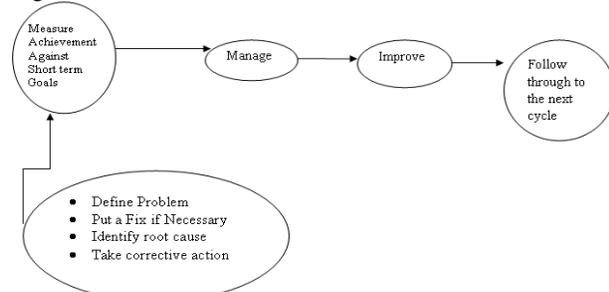
Phases	Prescribed Activities	Pitfalls
Pre-Setup	<ul style="list-style-type: none"> <li>Organizational assessment</li> <li>(internal analysis): use the Gap Analysis Model by Parasuraman</li> </ul>	<ul style="list-style-type: none"> <li>Not aware of organizational readiness for change, difficulty in establishing key organisational weaknesses, strengths, opportunities and threats</li> </ul>
Set-Up	<ul style="list-style-type: none"> <li>Develop process infrastructure and specify roles, relationships and responsible of                             <ol style="list-style-type: none"> <li>Process council</li> <li>Facilitators</li> <li>PI teams</li> </ol> </li> <li>Train Management</li> <li>Train facilitators (limit numbers)</li> <li>Train PI Managers (limit numbers)</li> </ul>	<ul style="list-style-type: none"> <li>No organized approach; due to lack of conceptual understanding of BPR</li> <li>Process initiatives locked into formal hierarchical structure</li> <li>Lack of engagement</li> <li>Top management not aware of its QI responsibilities</li> <li>Training programme too vague, and</li> <li>Training needs incorrectly identified</li> </ul>
Get-Up	<ul style="list-style-type: none"> <li>A case for action (objectives)</li> <li>Identify a vision</li> <li>Establish a mission</li> <li>Identify operational unit strategies</li> <li>Identify value system</li> <li>Identify key process issues</li> <li>Adopt a definition of quality patient care</li> <li>Identify the needs of patients</li> <li>Identify critical work processes that impart the delivery of care</li> <li>Identify key problems affecting delivery of quality medical care</li> <li>Identify pilot PI projects</li> <li>Nomination and selection of pilot PI projects</li> <li>Establish strong links between elements of process of arranging, delivering and managing care</li> </ul>	<ul style="list-style-type: none"> <li>Lack of clarity of purpose</li> <li>Does not reflect actions of management</li> <li>Confusion as to the needs of patients</li> <li>Mostly adhoc, lacks systematic focus</li> <li>Not important</li> <li>Not aware of the problems, detached from the source of the problems</li> <li>No organization-wide definition</li> <li>Difficulty in establishing the ultimate customer</li> <li>Wrong choice due to lack of understanding/ambiguity about work processes</li> <li>Not based on facts</li> <li>Too vague and too extensive</li> <li>PI teams select own projects</li> </ul>
Stay-Up	<ul style="list-style-type: none"> <li>Team maintenance activities to ensure continuity</li> <li>Integrate PI project(s)</li> <li>Consolidate lessons learnt from pilot projects into training</li> </ul>	<ul style="list-style-type: none"> <li>No accepted recognition and reward system</li> <li>Lack of integration of PI projects</li> <li>Lessons learnt not acted upon</li> </ul>
Move-Up	<ul style="list-style-type: none"> <li>Increase in number of PI projects and scope of projects</li> <li>Training and retaining at all levels</li> <li>Integration of PI projects into business plan</li> </ul>	<ul style="list-style-type: none"> <li>Poor coordination</li> <li>Gains in knowledge taken for granted</li> <li>Everything treated as tactical</li> </ul>

Figure 2: Continuous Process Improvement –The “how-to-do” BPR Model



At the end of each stage which lasted between three to six months because of the specific requirements of individual departments/units, a measurement and monitoring exercise was carried out using the measurement framework (figure 3) to ensure that defined clinical pathways have been achieved against set professional, patient objectives and regulatory requirements. The measuring and monitoring activity guaranteed that what got measured got done and in providing factual information in regards to how units and specialty areas could continuously improve on set goals. In addition, through a dedicated cultural effort and focus on continuous measurement, medical care delivery processes became manageable in a concise, systematic and comprehensive manner.

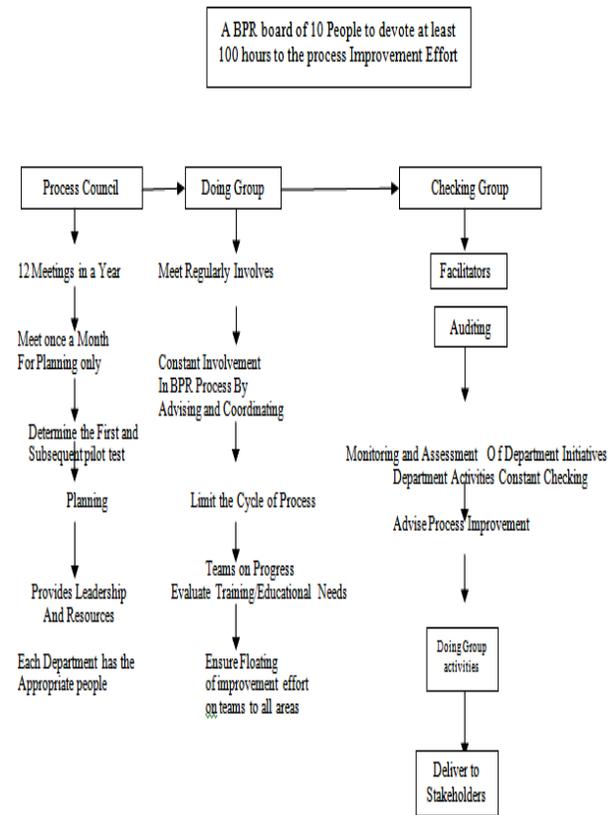
Figure 3: The Measurement Framework



According to the CEO, the managerial requirements placed upon management in the “how-to-do” model

within the implementation phase were delineated as follows (figure 4):

Figure 4:



At the end of reengineering program, the CEO and his team described the benefits from reengineering in the context of the inter-relationship management approach as follows:

1. Timely and responsive delivery and effective management of patient care plans through the total elimination of the seven service gaps,
2. Productive and efficient use of personnel through alignment of strategy and operations, and the effective deployment of information, financial and knowledge resources. This created a deep sense of organizational meaning for employees
3. A change of focus from improving financial performance to a focus on caring for patients. The new mental model according the BPR manager was that financial success is contingent on excellent provision of care, which would assure satisfied and loyal customers,
4. Introduction of patient electronic held records to reduce paperwork and the redesign of nursing assignments so that patients are cared for in adjacent rooms and medical supplies were moved to dedicated areas of usage. This reduced move time by 78%,

5. Communication became more open (linking and aligning the goals and purposes of managers, employees and patients), bottom up, as employees became comfortable communicating up without fear, and lateral by following the patient through the checking in, in-patient and out-patient work flows.

### Conclusion

The implementation BPR in healthcare has been difficult and many studies as evidenced in this paper have failed to provide a definitive framework for its introduction until now. This paper through a hospital case study offers a meaningful and successful approach in implementing BPR in healthcare, the inter-relationship management. The advantages of the inter-relationship management using the “how-to-do” model are many and if applied to any healthcare organization, are capable of:

1. Eradication of the operational confusion in hospitals in dealing with the effective integration of BPR within other ongoing quality and patient care initiatives. Drawing managerial attention to the process redesign weaknesses experienced by hospitals, the existence of patient service gaps, which demand attention prior to implementation.
2. Facilitating communication, horizontally, vertically and cross functionally, and improving coordination by stressing the importance of processes and laying the foundation for a team driven approach to problem solving and process improvement.
3. Developing crucial linkages between supplier, processor and customer, and the need to focus on prevention rather than detection through an in-depth, organizational assessment prior to BPR.
4. Enabling the more rapid growth and development of the BPR initiative beyond the narrow confines of standard setting and monitoring which seems the central focus of quality in hospitals.
5. Providing, a clear sense of corporate direction and the institutionalization of an organizational climate supportive of continuous process improvement.
6. Ensuring constant measurement and monitoring of the BPR process in order to know whether the organization is moving in the right direction.

In addition, managers should concisely administer the tenets of inter-relationship management (table 2). This will undoubtedly facilitate the achievement of a quality, responsive and productive employee effort across all strata of organizational life. It is the suggestion of this paper, that a better future for any hospital in terms of increased performance, efficient and effective deployment of resources cannot be attained when sought after directly. It would only come as a by-product of having an employee – centric leadership team, a clearly

defined strategy focused on the provision of patient value, and a highly motivated and engaged people working in an agile organizational environment. The relatedness and consistency in performance that these four elements of inter-relationship management guarantees, would enable a healthcare organization to appreciate that the successful implementation of BPR begins with a picture of the destination and the process of getting to the destination, and must be shared by everyone: process owners and all key stakeholders. Also, to be included in this picture is the critical patient processes and administrative systems that must be streamlined, redesigned, redefined, renewed, strengthened and improved. Finally, as shown in table 4, the hospital eliminated the 9 major challenges identified in 2008, and also eliminated the seven service gaps that inhibited a culture of patient centricity. The hospital achieved a 100 percent patient satisfaction rating as seen by the reengineering team at the end of the BPR implementation cycle.

It is in pursuit of making the BPR philosophy manifest, in making it operational, that practicing healthcare managers need help and guidance. To date there have been remarkable few, if any, empirical attempts made to offer a holistic implementation model of BPR that could serve as a reference point. The paucity of such models has meant that healthcare managers, directed only by generalized prescriptions found in the BPR literature, adopted their own individualized approaches based upon their subjective, and by definition, idiosyncratic experiences. Far from being coherent and comprehensive, attempts to implement BPR have become, to a large extent, vague and partial. An implementation model which does attempt to enforce the holism of BPR not to be found in the work of other BPR proponents is that offered in this paper. The intent is to show how the use of the inter-relationship management model to the implementation of business process reengineering improved the performance of a healthcare organization. And, the suggestion is hereby made that applying the inter-relationship management approach would result in major success for other hospitals.

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