*Northern Shores Hospital*

# BARRIERS TO RESIDENCY PROGRAM EXPANSION

# ANALYSIS PROPOSAL

**PREPARED BY**

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# 1 THE ORGANIZATION

## 1.1 ORGANIZATIONAL CONTEXT

Northern Shores Hospital opened its doors in 2018, as the replacement facility for Eliza Coffee Memorial Hospital in Florence, Alabama. The facility serves as a regional facility for more than 200 physicians who represent more than 42 specialty areas of medicine. Northern Shores Hospital recently became a teaching hospital with its newly developed Internal Medicine (IM) Residency Program. The program began on July 1st, 2020, with 24 residents (12 in year 1 and 12 in year 2). The three-year Categorical IM program at Northern Shores Hospital offers a dedicated focus on medical education experience and has a robust, diverse, and well-rounded emphasis in both ambulatory and inpatient experiences. The program aims to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, treatment of disease and at the end of life.

## 1.2 PERFORMANCE ISSUE

NSH's (IM) residents have excelled way above the national average at in-service exams. They recently won a national competition and are scheduled to present at national and international conferences. NSH intends to build on its success with its IM residency program by expanding its offerings to include anesthesiology, emergency medicine, radiology, cardiology, and general surgery by July 1, 2023.

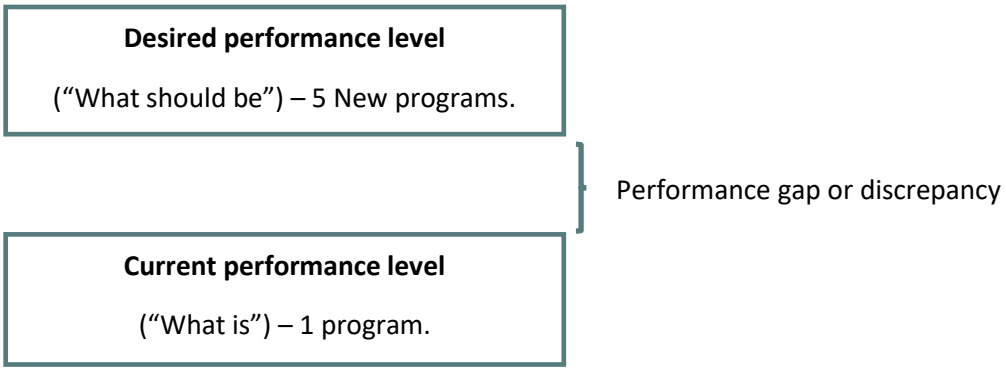


**Figure 1 Performance gap or discrepancy.** (**Rothwell et. al 2018).**

To close the gap the hospital must undergo an accreditation process with the Accreditation Council for Graduate Medical Education (ACGME). This process is similar to what the hospital underwent to qualify to run the IM program. ACGME requires program directors to apply 2 years ahead of intended start dates. To be compliant, NSH must apply by July 1, 2021. This means the hospital has just 4 months to meet ACGME program requirements for 5 new programs.

Further analysis might reveal gaps beyond the current discrepancy.

## 1.3 Significance of Solving the Performance Issue

Not only do resident doctors provide economic benefits to the sponsoring organization but retained program graduates can reduce recruitment costs down the line. Currently, NSH spends between $400,000-$600,000 to recruit and onboard each new physician or surgeon. They hope to reduce these costs by $150,000 per physician or surgeon by retaining a percentage of their resident doctors at the end of their training. Also, when physicians participate in the exchange of information inherent in teaching, they open themselves up to review by their peers, students, and themselves. The result of this scrutiny often translates to improved performance. Another reason this performance problem needs to be resolved is that newer doctors demonstrate a greater comfort level with using new technology which makes it easier to make ground-breaking accomplishments. Improved performance and ground-breaking accomplishments using new technology is key to becoming the number one teaching hospital in Alabama – one of NSH's organizational goals.

# 2 Performance Gap Analysis Plan

## 2.1 Tools to Be Used

NSH is preparing for future growth. It is important to use a systemic approach to identify the performance gaps NSH needs to close in preparation for this new undertaking. To conduct a performance gap analysis, I will use **Rummler and Brache's Matrix. (*RummlerBrache.com*, n.d.)**

- At the organizational level, I will assess the organization's goals, strategy, performance metrics, culture, vision, and mission.
- The process level will assess if the operational capacity, patient influx, organizational structure, and resources (such as facility, equipment, faculty, and finances) are sufficient for this new venture.
- Critical variables like how residents are trained, training faculty is recruited and retained will be assessed at the performer level. I will also observe workflow, coaching and support of residents by faculty, as well as feedback and incentives in place for faculty and residents.

Failure to thoroughly identify discrepancies/room for growth might limit NSH's success in their venture. It could also lead to a failure to sustain the desired growth when it occurs. Thorough analysis with this matrix will help identify exemplary performance that will be useful for the new programs.
Refer to Table 1. Rummler and Brache's Matrix. **(*RummlerBrache.com*, n.d.)**

My second tool is one that the ACGME uses for accrediting programs and assessing physicians. The American Board of Medical Specialties developed six core competencies for this purpose. The competencies provide a systematic framework to evaluate curriculum and assessment in medical education. Each medical specialty is tasked with meeting specific milestones within each competency.

For instance, the patient care skills for an internal medicine resident will differ from those for a general surgery resident. (Pugno, et. al 2010) Specialty-specific milestones within the competencies will guide the performance gap analysis of the program for each of the new specialties.
Refer to Table 2. ACGME Core Competencies.

To determine what gaps the organization should prioritize analyzing during the cause analysis, I will use Gilbert's (1996) second leisurely theorem (Chyung, 2008) to calculate the potential for improvement:

$$PIP = \frac{W_{ex}}{W_t}$$

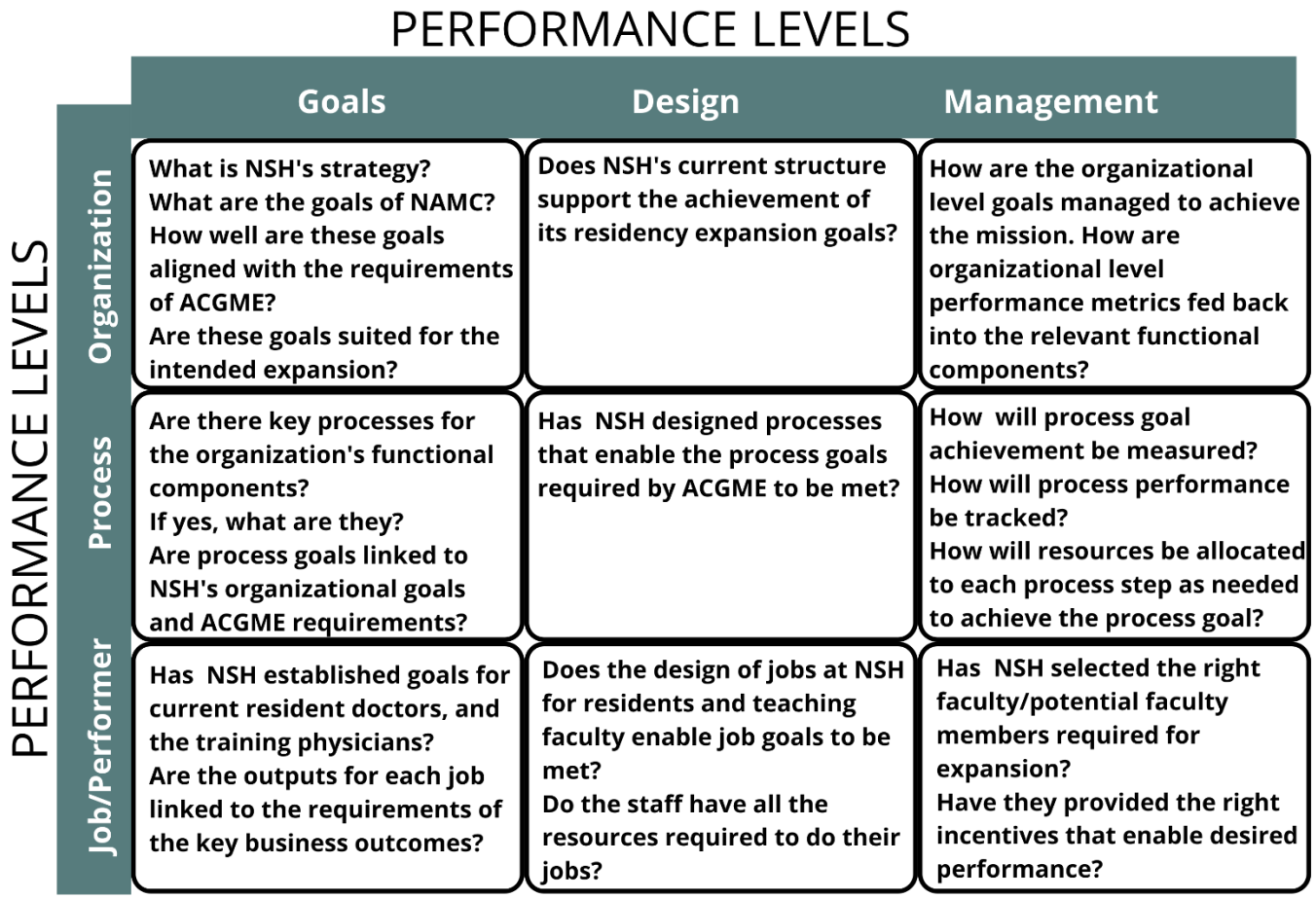


**Table 1: Rummler and Brache's Matrix.** (***RummlerBrache.com***, **n.d.**)

| ACGME Core Competencies | | | | | |
|---|---|---|---|---|---|
| Patient Care and Procedural Skills | Medical Knowledge | Practice-based Learning and Improvement | Interpersonal and Communication Skills | Professionalism | Systems-based Practice |

**Table 2. ACGME Core Competencies.** (ACGME core competencies, 2021)

## 2.2 Sources and Methods for Collecting Data

The organization's goal is to increase the number of residency programs at NSH by July 1, 2023. The objective is to collect data that reveals any gaps between the organization's current capacity and its desired capacity.

The methods and sources for collecting data include:

- Organize brainstorming sessions with NSH's project leader to review, gather data and tailor a framework from existing material – policies, procedures, training material, performance metrics, ACGME requirements, core competencies, milestones for the 5 new programs, regulations & guidelines, models of exemplary performance and external data from benchmark studies and industry standards.
- Conduct interviews with the CEO & Program Director & Subject matter experts (SMEs) to get answers to specific questions, gain alignment around goals, objectives, timelines, and deliverables.
- Focus Groups with faculty, residents, and management to identify big picture themes that might impact NSH's goal.
- Survey designed to collect feedback from patients regarding satisfaction and suggestions for improvement in patient care.

# 3 Cause Analysis Plan

## 3.1 Tools to Be Used

As a continuance from the gap analysis, I will use the Ishikawa Diagram to document the cause(s) & effect(s)of any discrepancies identified when using ACGME's Core competencies (See Figure 2.) The results will be analyzed as issues that could prevent accreditation.

I will also use Gilbert's Behavior Engineering Model (BEM) to ask open-ended "cause analysis" questions to document causes of discrepancies identified using Rummler and Brache's Matrix in appropriate categories of the BEM. Sample questions have been adapted from Roger Chevalier's revision. (Chevalier, 2003) See Table 3.

The results will be analyzed as discrepancies that could hinder or affect the sustainability of NSH's desired goal.

In tandem with Gilbert's BEM, and the ACGME Core competences, I will be using the 5 WHYs to drill down to the root cause(s) of any issues found in the environmental and individual factors as well as gaps identified using the ACGME Core competencies and milestones.

Sample questions could include, "Why doesn't NSH have the operational capacity to add 5 residency programs to their program by July 1, 2023? Why don't faculty exhibit the required level of professionalism?"

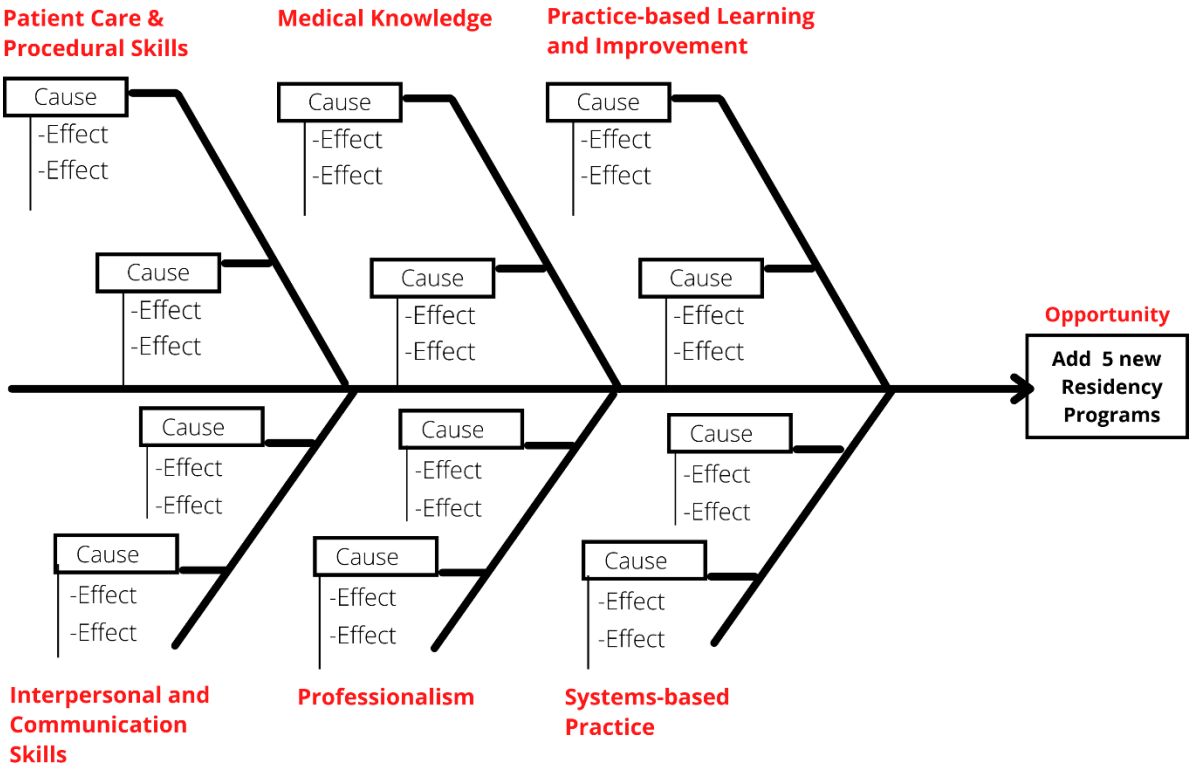


**Figure 2. Ishikawa's Fishbone Diagram.** (Fishbone diagram, n.d.)

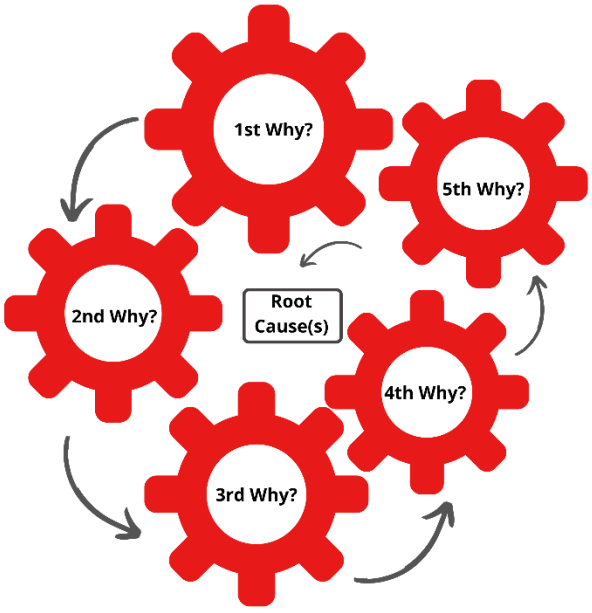


**Figure 3. Five WHYs Technique of Causal Analysis.**

**Table 3. Gilbert's Behavior Engineering Model**

| | Information | Resources | Incentives |
|---|---|---|---|
| Environment | 1. Why aren't roles and performance expectations clearly defined for the faculty?<br>2. Why aren't faculty members given relevant feedback about the adequacy of the performance?<br>3. Why aren't clear and relevant guides used to describe the work process?<br>4. Why doesn't the performance management system guide faculty's performance and development? | 1. Why aren't materials, tools and time needed to do the job present?<br>2. Why aren't processes and procedures clearly defined?<br>3. Why don't process and procedures enhance individual's performance if followed?<br>4. Why doesn't the overall physical and psychological work environment contribute to improve performance?<br>5. Why aren't work conditions safe, clean, organized and conducive to performance? | 1. Why aren't financial and non-financial incentives present?<br>2. Why don't measurement and reward systems reinforce positive performance?<br>3. If present, why aren't they adequate?<br>4. Why aren't jobs enriched to allow for the fulfillment of employee needs?<br>5. Why isn't the overall work environment positive?<br>6. Why don't current faculty and current resident doctors and potential faculty believe they have an opportunity to succeed?<br>7. Why aren't career development opportunities present? |
| | **Knowledge/Skills** | **Capacity** | **Motives** |
| Individual | 1. Does faculty have the necessary knowledge, experience, and skill to perform the desired behavior?<br>2. Is faculty with the necessary knowledge, experience and skill properly placed to use and share what they know?<br>3. Is faculty cross-trained to understand each other's roles? | 1. Does faculty have the capacity to learn and do what is needed to perform successfully?<br>2. Is faculty recruited and selected to match the realities of the work situation?<br>3. Is faculty free of emotional limitations that would interfere with their performance? | 1. Do the motives of faculty align with the work and the work environment?<br>2. Does faculty desire to perform the required jobs?<br>3. Was faculty recruited and selected to match the realities of the work situation? |

Adapted from (Chevalier, 2003)

## 3.2 Sources and Methods for Collecting Data

To answer questions generated using Gilbert's BEM, I will pull quantitative data (performance measures and efficiency metrics) and qualitative data (operating reports, work records, & exit interviews from Human Resources.

Top management such as the hospital CEO, the program director of the residency program and SMEs will provide data through interviews regarding the cause of any discrepancies within ACGME core competencies.

The finance department, and quality control specialists will be a great source for gathering data regarding expansion costs, feasibility, profitability, quality records and sustainability.

The current faculty, potential faculty for the new programs and current residents will provide data through performance observations (of faculty and residents during coaching, training, and feedback sessions) focus groups, and surveys regarding program quality, motives, incentives, capacity, and sustainability.

# 4 Discussion

The tools chosen for this project are:

1. Rummler & Brache's Model
2. ACGME's Competencies
3. Gilbert's Second Leisurely Theorem
4. Ishikawa's Fishbone Diagram
5. Gilbert's Behavior Engineering Model
6. The 5 WHYs

## 4.1 Strengths and Weaknesses of the Tools

Rummler and Brache's model is perfect for this situation. Considering that NSH is looking at expanding its operations, it is a good time to evaluate organizational, process and performer goals, at the systems level. However, because of the scope of the project, this model might be time consuming especially with an organization as large as NSH.

The strength of Ishikawa's bone diagram is that it offers a blank slate to brainstorm with. Using another HPT practitioners' questions /prompts might not work with NSH's scenario. This strength could also be a weakness because there are no prompts to get started with.

Gilbert's Second Leisurely Theorem measures the potential for improving performance and recommends closing gaps with the highest potential for improvement. Whilst it is an excellent tool to use in calculating and prioritizing performance gaps to be closed (especially because NSH might have a lot on closer analysis) it won't prioritize closing gaps with a small PIP. This is important because there might be gaps with a small PIP that could hinder NSH's accreditation if not closed.

Gilbert's Behavioral Engineering Model is useful for exploring root cause(s) of problems. However, because it focuses heavily on aspects of the environment that could be obstacles to high performance, it might be a challenge to use it with NSH's management. This is because the tool might point towards them as being culpable in having raised the barriers to performance that the analysis might identify.

Whilst ACGME's core competencies and milestones are not conventional HPT tools, it is crucial to use this framework to establish performance measures. It is a useful tool, but it might be limited in its capacity to troubleshoot for issues at the systems level.

The 5WHYs is excellent for exhausting the list of potential causes of a performance problem until the root cause is found. (Rothwell et. al 2018). It might be a challenge to find the right answers to use in surfacing the root cause of NSH's problem, but it will be a great tool to get through any slump during analysis.

### 4.2 Organization Support Needed

A lot of the information I will need to begin and complete this proposal will come from the Program Director, Hospital CEO, Finance Manager and Human Resources Manager. They will prove helpful divulging the information I need to conduct an analysis. They will be responsible for providing a budget and resources for the assessment and analysis. I will need their support to gain the necessary buy-in at every level of analysis i.e., with supervisors, faculty, and resident doctors. With their support, I will identify objectives, establish expectations, identify constraints and deliverables crucial to attaining the desired outcomes.

## 5 References


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