
Introduction

The nurse manager's role is critical to promote exceptional quality care and a positive practice environment. Nurse manager effectiveness can profoundly impact staff retention, satisfaction and patient outcomes (Cupit et al., 2019). Attention must be paid to their engagement, well-being and turnover risk. Research indicates that the nurse managers' effectiveness significantly influences both staff and patient care outcomes, with their span of control (SOC) playing a central part (Boned-Galan et al., 2023; Cupit et al., 2004; Cupit et al., 2019; Doran et al., 2004; El Haddad et al., 2019; Grandfield et al., 2023; Havaei et al., 2015; Kim et al., 2016; Morash et al., 2005; Omery et al., 2019; Ruffin et al., 2023; Schlotzhauer et al., 2023; Simpson et al., 2017; Wong et al., 2014; Wong et al., 2015).

The appropriate SOC or the number of direct report that a nurse manager can effectively supervise and manage is important in maintaining efficiency, quality of care and work-life balance for their teams. It is important to evaluate SOC to ensure that the nurse manager can provide adequate support, guidance and oversight. No universal standards or algorithms exist to identify the ideal SOC; the range varies across different industries. However, evidence shows that the appropriate SOC can enhance nurse satisfaction, mitigate turnover and reduce vacancy rates, thereby enabling nurse managers to effectively address key challenges within their departments (Harter, 2020).

The ideal SOC for nurse managers depends on several factors, including the complexity of the health care setting, available resources, manager level of experience and skill, the workload and responsibilities of the direct reports. Multiple strategies can address SOC and adjustments can be made as necessary to maintain an appropriate balance between effective management and high-quality care delivery.

Background

The nurse manager, a pivotal position in care delivery, encounters numerous challenges. The manager's responsibilities include providing high-quality patient care and cultivating a positive practice environment for clinical nurses and the entire care team. Many who have served in this role report it is one of the most demanding positions in health care, often taking years to become competent (Schlotzhauer et al., 2023). The toll of managing a workforce on a 24/7, 365-days-per-year schedule presents formidable hurdles, often leading to high rates of burnout by straining managers' mental, emotional and physical well-being. The AONL Foundations' 4th Longitudinal Nursing Leadership Insight Study (2022) found that 45% of nurse managers are considering leaving their roles, with burnout and lack of work-life balance as the primary drivers. In 2023, the AONL Foundations' 5th Longitudinal Insight study was replicated and found marginal improvement in nurse leaders' intent to leave their roles, citing the adverse effects on health and well-being as the primary driver for departing.

Nurse managers have varying headcounts and are responsible for diverse quality outcomes to keep patients safe and "satisfied," and the care team engaged. Position expectations vary widely by geography and organization; finding an evidence-based framework for the role responsibilities is difficult as the literature contains varied guidance. A contemporary conceptual definition of a SOC reflects its complexity, particularly in an acute care

setting, and is defined as a workload based on “the number of direct reports, staff characteristics, amount of required supervision, work complexity, and manager capability” (Ruffin et al., 2023, p.171). Evidence suggests that the SOC extends beyond the mere count of direct reports. It emphasizes the importance of both the number of employees and individual-related factors (Ruffin et al., 2023; Merrill et al., 2013).

Two pivotal reports, each a comprehensive study, have delved deep into the realm of SOC. The first, a survey conducted by the Health Management Academy (2023) titled “A Data-Driven Approach to Evaluating Nurse Manager SOC: Results from Nursing Catalyst’s 2023 National Survey on Frontline Clinical Leader Span of Control,” analyzed results from 1,774 front-line clinical leader survey respondents, providing essential insights into SOC. The report benchmarked variables that impact front-line leader SOC, shedding light on the type of support they typically have. It revealed that 67.19% of frontline clinical managers had some support, including nurse educators, assistant nurse managers, clinical nurse leaders, and operations support. The report identified six top variables that impact SOC, including headcount, bed count in department, time in practice by the nurse manager, risk management, number of pilot projects, and turnover rate, offering a comprehensive understanding of the factors at play.

The second report, *Quantifying Nurse Manager Impact*, a collaboration between Laudio Insights and AONL (2024), reflects the crucial role of nurse managers in health care. The report offers valuable insights derived from operational data, providing distinct viewpoints on the intricate environments encountered by nurse managers. The report demonstrates the relationship between varying spans of control, nurse managers’ interactions with their team members and financial outcomes. The report identifies that the median SOC for nurse managers is a “46 headcount (36 FTEs) with wide variations in SOC by specialty (p. 9).” The data set covers 8,106 distinct managers and 105,862 employees, including all care sites in health systems, though most employees are in an inpatient setting. The higher the SOC, the higher the RN turnover, incremental and overall overtime, and nurse burnout rates. Key takeaways include that the “nurse managers’ role is the highest leverage point in the hospital to impact outcomes and is worthy of ROI-positive decisions and investments.” (p. 30), a powerful affirmation of the impact and potential of nurse managers in health care.

Recognizing the significance of this issue, AONL took a proactive step by assembling a SOC Subcommittee of nurse leaders from across the country. This subcommittee, part of the Workforce Committee, worked to actively shape the future scope of responsibilities for nurse managers, emphasizing their value and potential positive impact.

What We Know

To determine an appropriate SOC, leaders should consider the unique circumstances of each health care organization. This ensures that nurse managers can provide adequate support, guidance and oversight to their teams while maintaining efficiency, quality of care and a personal work-life balance. The structure of the nurse manager’s role, responsibilities, tasks and reporting lines may vary between organizations, and there is no universally defined number/headcount for direct reports to the nurse manager in health care. Ruffin et al. (2023) and Merrill et al. (2013) advise that a SOC is more than the number of direct reports. It is about considering the number of direct reports *and* individual-related factors such as the complexity of the health care setting, the level of experience and skill of the nurse manager, the workload and responsibilities of the team members and the resources available for support.

Considerable evidence shows that an inappropriate SOC for nurse managers can lead to adverse outcomes (Cathcart et al., 2004; Cupit et al., 2019; El Haddad et al., 2019; Havaei & MacPhee, 2015; Kim et al., 2016; Omery et al., 2019; Simpson et al., 2017; Wong et al., 2014; Wong et al., 2015). Studies have shown that an

excessive SOC can result in decreased nurse satisfaction, unfavorable quality outcomes, increased staff turnover and decreased role satisfaction. Simpson et al. (2017) attributed “significant negative changes within their organization to administrative changes that resulted in a wider SOC for nurse managers. Increased nurse manager and registered nurse staff turnover, decreased patient and nurse satisfaction, and decreased performance for nurse-sensitive indicators were noted. An exhaustive literature review identified trends that link a wider SOC to negative effects in nursing” (Simpson, 2017, p. 186). One research study (Omery et al., 2019) found that for every additional 10 staff members assigned to a nurse manager, the unit staff turnover rate increased by 1.6%. Moreover, when managing a span of 100 staff members, the predicted annual turnover rate was 16%.

The following guidelines provide a general framework for evaluating an SOC. It is important to regularly assess and review the SOC based on the evolving needs of the team, organizational changes and feedback from both nurse managers and their direct reports. Based on the literature, the following considerations should be evaluated for determining an appropriate SOC:

- 1. Nurse manager experience and skill level:** Managers with more clinical experience and longer tenure in the nurse manager role generally have better outcomes and higher job performance. Experienced nurse managers may be able to manage a larger SOC due to their proficiency in managing teams and their ability to delegate tasks efficiently.
- 2. Size and complexity of the care setting:** If the unit, clinic, or department is highly specialized or involves complex procedures, a narrower SOC may be more appropriate. This allows the nurse manager to provide focused attention on the specific needs of each nurse and the patients under their care. In addition, the bed count and overall size of the unit, clinic or department must be considered.
- 3. Experience and skill level of the nurses:** If the nursing staff consists of experienced and highly skilled nurses who require minimal supervision, a wider SOC may be feasible. Conversely, if the nurses are new to their roles or require more guidance, a narrower SOC may be necessary to ensure proper support and training.
- 4. Administrative and clerical responsibilities:** The administrative responsibilities and workload of the nurse manager also plays a role in determining the appropriate SOC. If the manager has significant administrative tasks, such as budgeting, scheduling, and performance evaluations, a narrower SOC may be needed to allow sufficient time for these activities.
- 5. Communication and coordination requirements:** Effective communication and coordination within the unit are essential for delivering quality patient care. If the unit requires frequent meetings, collaboration and coordination with other departments, a narrower SOC may be necessary to facilitate effective communication channels.
- 6. Organizational structure:** The overall management structure and hierarchy within the organization may also influence the SOC for nurse managers. If the organization has multiple layers of management, a broader SOC may be feasible as the nurse manager can rely on additional layers of supervision and support.
- 7. Workload, experience levels, and responsibilities of the team members:** If the team members have high workloads or complex responsibilities, a smaller SOC may be necessary to ensure that the nurse manager can provide adequate support and address any issues or concerns effectively.
- 8. Addressing skill mix:** A process that involves assessing the qualifications, competencies and workload of the nursing staff under the manager’s supervision is important. By optimizing the skill mix, leaders can ensure that the manager has an appropriate number of staff members with diverse skill sets to effectively manage their workload and deliver quality patient care.

- 9. Availability support resources:** The availability of resources, such as support staff, technology and administrative support, can reduce the adverse impact(s) of a large SOC. Support resources may include assistant managers/supervisors, charge nurses and educators, in addition to administrative and clerical support. Sufficient resources can alleviate some of the managerial burden and allow for positive patient outcomes despite a larger span of control. While supporting factors may mitigate the potential negative impacts of a larger SOC, they do not eliminate it (Schlotzhauer et al., 2023).

An appropriate SOC may vary based on the specific circumstances of the particular care setting. Each health care environment may have larger or smaller teams depending on patient volume, services offered, and available resources. In partnership with the nurse manager, senior nurse leaders should consider the workload, complexity of patient care, and the ability to provide adequate support when determining the optimal SOC for their specific situation. To conduct an evaluation of SOC, the assessment tool can be used by following a step-by-step process that includes data collection, analysis and interpretation.

The AONL Span of Control Subcommittee conducted a thorough evaluation of several assessment tools available to examine the SOC of nurse managers. Jones et al. (2015) assessed nurse manager headcount, department workload, hours of operation, number of cost centers and controllable expenses to determine the nurse manager's scope of accountability. Morash et al., (2005) developed a more in-depth tool and grouped 15 indicators into unit-focused, program-focused and staff-focused. The tool can be used by a nurse leader for an in-depth scoring of SOC as defined as "control of managers based on the number, skill, stability and diversity of staff; the complexity of the units; and the budget and diversity of the program for which the manager is responsible." This comprehensive approach ensures the accuracy and reliability of the SOC evaluation.

After evaluating the literature and reviewing best practices, the subcommittee developed a high-level assessment tool providing a snapshot of the current state. Developed by nurse executives, the content is valid. Psychometric testing to validate the reliability of this tool will begin during the third quarter of 2024. A representative from the Healthcare Financial Management Association joined the subcommittee to provide financial expertise. The collaboration fostered a shared understanding of the financial impact of investing in resources and structural enhancements – the Return-on-Investment Calculator. The tool empowers the leaders to make informed decisions and take accountability for them. The model for this type of discussion is outlined in *The Business of Caring: Promoting Optimal Allocation of Nursing Resources*, which can be found [here](#).

How to use the tools

1. Span of Control Assessment Tool

This high-level assessment tool aims to assist leaders in determining the appropriate SOC for the nurse manager. The tool may help determine if the SOC needs to be adjusted to ensure nurse manager success.

2. Return on Investment (ROI) Calculator

The calculator is available as an interactive tool to enter unit specific details and identify the return on investment if an inappropriate SOC is created.

The ROI calculator allows for individualization and adjustment of investment and savings based upon several factors. It takes into consideration areas impacted by improvements in SOC and makes assumptions on how investments will impact these areas. The ROI Calculator will assist leaders in justifying an investment in resources while providing expected outcomes and accountability measures.

SPAN OF CONTROL ASSESSMENT TOOL

Directions: Consider the manager’s scope of accountability and check the most appropriate score for each of the factors. Lower scores may indicate that the manager’s span of control is appropriate, or they could expand responsibilities. The higher the score, the greater the need to evaluate the span of control and consider adjusting factors to right-size. High scores should be considered as part of an evaluation of the unit’s overall effectiveness.

Unit type: _____ Hours of operation: _____
 Unit # beds: _____ 24/7 operation
 # FTEs: _____ or _____ M-F days
 Headcount: _____ or _____ other (please specify): _____

FACTORS FOR EVALUATING SPAN OF CONTROL	1	2	3	4	5	TOTAL
Complexity of unit	Low Complexity High complexity					
The size and complexity of the health care setting or unit (patient acuity, case complexity, scope of services provided)						
Hours	Weekdays		Extended hours		24/7	
Hours of operation						
Nurse manager experience and skill	Experienced/ High skill level			Novice nurse manager		
The level of experience and skill of the nurse manager						
Administrative burden	Minimal			Many admin responsibilities		
Administrative responsibilities of NM (payroll, budget monitoring, supply and materials management, clerical work, scheduling)						
Reporting structure	Many management layers			Flat org structure		
The level of experience and skill of the nurse manager						
Budget	Smaller budget (<1M)			Large budget > 5M		
Budget size						
Unit workload	Stable workload			Unpredictable workload		
Nurse workload and responsibilities of the team members						
Administrative support	Many supports		Shared		Minimal	
Admin Support resources available: support staff, admin support, budgeting/ monitoring support, performance reviews						

FACTORS FOR EVALUATING SPAN OF CONTROL	1	2	3	4	5	TOTAL
Leadership support Leadership Support Resources: Assistant Manager, Supervisor, Charge Nurse (out of staffing), Team Leader, etc.	Multiple		Few		None	
Communication Communication requirements: # meetings, interdepartmental coordination.	Low communication efforts			High comm efforts		
Staff skill level Skill and capabilities of the staff (education, experience, competency level, workload)	Highly experienced staff (<5% new grads)			(>15% new grads or new to specialty)		
TOTAL SCORE OF COLUMNS						

** The tool score range is from 11- 55 points.

Return on Investment Calculator

There are five tabs within the tool: Instructions, Savings Calculated, ROI, Additional Benefits and References.

Instructions: This is the tab in the tool that describes how the tool can be used.

Savings Calculated Spreadsheet: This is the tab in the tool that allows for an organization (or unit) to adjust the potential savings based on several factors. It has three columns, Health System Specific Reported Values, Health System Values Using Research Data and Research Data.

Organization: ABC Health Adjustable Inputs

	Health System Specific Reported Values	Health System Values Using Research Data	Research Data
Staffing Improvements			
Number of Hospital Staff (Nurses)	1,000	1,000	4,300,000
Turnover Rate	20%	23%	23% Avg. Rate (NSI 2023)
Number of Staff Turned Over	200.00	225.00	967,500.00
Turnover Reduction Improving Span of Control	10%	10%	10%
Turnover Avoided	20.00	22.50	96,750.00
Average Replacement Cost Per Nurse (Training, Hiring, OT/Agency)	\$ 45,000.00	\$ 52,350.00	\$ 52,350.00 Avg. Cost (NSI 2023)
Total Turnover Costs Avoided	\$ 900,000.00	\$ 1,177,875.00	\$ 5,064,862,500.00
Quality Improvements			
Annual Hospital Discharges	10,000	10,000	5,549
CAUTI Reduction Improving Span of Control	20.00%	5.40	5.40 #/1000 Disch. (AHRQ)
Number of Events Reduced	10.80	54.00	
Avoidable CAUTI Cost - Your Hospital	\$ 5,019.00	CAUTI Cost/DC: (L) \$5,019 (AVG) \$13,793 (H) \$22,568	
CLABSI Reduction Improving Span of Control	10.00%	0.27	0.27 #/1000 Disch. (AHRQ)
Number of Events Reduced	0.27	2.70	
Avoidable CLABSI Cost - Your Hospital	\$ 27,232.00	CLABSI Cost/DC: (L) \$27,232 (AVG) \$48,108 (H) \$68,983	
HAPU Reduction Improving Span of Control	25.00%	23.00	23.00 #/1000 Disch. (AHRQ)
Number of Events Reduced	57.50	230.00	
Avoidable HAPU Cost - Your Hospital	\$ 14,506.00	HAPU Cost/DC: (L) \$14,506 (AVG) \$20,900 (H) \$43,180	
Annual Quality Costs Avoided	\$ 895,652.84		

*This calculator designed in collaboration with the Healthcare Financial Management Association

Health System Specific Reported Values is where an organization (or unit) would place its specific information and areas that they feel can be impacted by improvements in span of control. Information to be collected are number of staff, turnover rate, average replacement cost, discharges, CAUTI rate and cost, CLABSI rate and cost, and HAPU rate and cost. Additionally, assumptions are made on how investments in improving span of control will impact these areas are needed. These assumptions can be shared and discussed to allow for input and accountability.

The Health System Values Using Research Data column uses readily available inputs specific to the health system (or unit) column, number of staff and discharges matched with some information in the research data column. For those areas where leaders might not have specific rates or cost information for their organization (or unit), an estimate of impact can be made by using the research data and dialogue and input into these can be fostered.

The Research Data column has information that has been gathered from literature search and survey work on impact and costs of various interventions.

ROI Spreadsheet – This is the tab in the tool that will carry over the projected savings from the interventions in the **Savings Calculated** tab as well as where the user would place the cost of initial and recurring

investments in improving span of control. Other inputs are NPV Rate, IRR Hurdle Rate and Annual Inflation Rate, which can be a basis for discussion with the finance team to determine appropriate numbers to place. Once these are entered in the sheet, the tool will calculate the financial impact over the next five years of these investments.

	Year 1	Year 2	Year 3	Year 4	Year 5
Benefits		1,795,652.84	\$1,903,392	\$2,017,596	\$2,138,651
Cost					
Initial Investment	\$100,000				
Annual Recurring Cost	\$200,000	\$200,000	\$212,000	\$224,720	\$238,203
Total Cost	\$300,000	\$200,000	\$212,000	\$224,720	\$238,203
Cash Flow	(\$300,000)	\$1,595,653	\$1,691,392	\$1,792,876	\$1,900,448
Cumulative Cash Flow		\$1,295,653	\$3,287,045	\$4,484,268	\$5,693,324
Net Present Value	(\$285,714)	\$1,247,561	\$2,799,002	\$4,373,217	\$5,974,919
Internal Rate of Return		432%	522%	535%	537%
Values Assumed					
NPV Rate	5%				
IRR Capital Hurdle Rate	5%				
Annual Inflation Rate	6%				

*This calculator designed in collaboration with the Healthcare Financial Management Association

Added Benefits – This is the tab that can help to identify additional financial and non-financial benefits that could be generated by investments in improving span of control. These benefits may be less directly affected by improvements, or are difficult to quantify financially, or may duplicate already identified savings – but are nonetheless critical to understanding the overall potential impacts and can serve as a basis for discussion.

Additional Benefits	Opportunity
Inpatient Opportunities	
Reduce Nurse Overtime	Reduce Labor Costs
Reduce Treatment Clarification Calls	Reduce Labor Costs
Reduce Wasted Resource Consumption	Decrease Supply Expense
Reduce Nurse Coordination Time	Reduce Labor Costs
Reduce Unnecessary Room Turns	Reduce Labor Costs
Improved Housekeeper Utilization	Reduce Labor Costs
Reduce Transport Costs	Reduce Labor Costs
Emergency Department	
Quicker Placement of ED Admits	Reduce Labor Costs
Improved ED Throughput	Reduce Labor Costs
Length of Stay	
Lower Hospital Length of Stay	Reduce Supply/Labor Costs
Patient Satisfaction	
Improved Patient/Family Communication	Increase Patient Satisfaction
Improved Culture of Safety Scores	Increase Patient Safety
Staff Turnover/Satisfaction	
Physician Satisfaction	Increase Physician Satisfaction; Increase Referral Volume (Revenue)
Improved Culture of Safety Scores	Increase Workforce Safety
Staff Turnover Reduction	Decrease Cost
Increase employee wellbeing through interaction	Reduce Staff Turnover

*This calculator designed in collaboration with the Healthcare Financial Management Association

References – This is the tab in the tool that ties back to the Research Data column in the **Savings Calculated** tab for those wanting to see the sources of information. It allows the user to see where the information was obtained, and also as updated information is available, the references can suggest changes to the calculator.

Summary and recommendations

Leaders should regularly assess and review the (SOC based on the evolving needs of the team, organizational changes and feedback from both the nurse manager and the direct reports. Adjustments can be made as necessary to maintain an appropriate balance between effective management and quality care delivery. Using the tools in this document will assist in determining if additional work needs to be done to justify an investment in resources to right-size the SOC.

It is incumbent on leaders to quantify and take accountability for a return on investment by collaborating with both their human resources and finance partners. Based on the literature (Cupit et al., 2019) below are a summary of considerations for leaders as they evaluate and right-size SOC:

- Reassess the nurse manager SOC on an ongoing basis.
- Identify the need for an infrastructure to support administrative operations that can be delegated by the nurse manager. Evaluate the number of administrative support positions assigned to nurse managers. Consider implementing administrative support particularly in those areas with a high administrative burden score and minimal support. This will support nurse managers working at the top of their ability.
- Improve the skill set of nurse managers through leadership education including elements of social and emotional intelligence, conflict resolution, coaching, mentoring and evidence-based leadership styles correlating with patient and staff outcomes. Include content on best practices for giving feedback to direct reports and providing meaningful performance appraisals to help clinicians develop a professional development plan.

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