Managing staff resources in an environment where demand is unpredictable and patient engagement is critical remains a challenge. Complexities related to staffing and scheduling do not diminish. Nowhere is this more evident than in direct patient care roles such as nursing.

To successfully right-size and right-configure the patient care workforce, it is becoming necessary to apply advanced statistical modeling, and targeted analytics. Philips has the proven expertise to provide operations research, cost models, and staff management proficiency for nursing leadership to enable enhanced clinical quality and labor efficiency.

Enhance the productivity and flexibility of your clinical staff

Philips Healthcare Transformation Services – Workforce Optimization

Key advantages
- Predictable nurse resource planning
- Improved productivity and staff satisfaction
- Data analytics and modeling to predict and assess performance
- Enhanced environment and reputation to support recruiting efforts
The search for an answer
Attempts to compensate for the current nursing shortage can result in over-staffing, staff burnout, excessive use of outside contract labor, and scheduling discord. Organizations are asked to manage costs, yet they can be penalized for readmissions and lapses in quality.

Staffing systems have evolved to meet the increasing complexity of healthcare organizations. Methods to manage and measure the outputs of these systems must also evolve. The ideal end-state is to assign the right nurse at the right time for the right cost with the right education and the right experience, to perform the right task.

A proven, strategic approach
By nature, staffing systems are a dynamic network of many aspects acting and reacting in parallel. Using advanced mathematical modeling and analysis, the Philips team is able to create holistic and integrated solutions to optimize the clinical workforce. We can also help establish a flexible ‘pool’ strategy for resource deployment across large, integrated healthcare networks that may take the form of a geographically organized, enterprise-wide solution.

Our precise simulation modeling tools use linear programing, discrete-events, time-series analysis, queuing, and other techniques which have been applied successfully in other industries. These support pre-testing and validation of staffing options prior to implementation as well as monitoring of ongoing performance.

Tools of the trade
A focus on building internal capacity which will be sustainable requires that we work closely with nursing and management teams. Our approach focuses on achieving immediate project objectives while being mindful of future needs.

<table>
<thead>
<tr>
<th>Analysis and assessment</th>
<th>Methodology</th>
<th>Performance improvement</th>
<th>Change management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze patient demand at the department, cost center, hospital, and enterprise as the basis for a demand-driven staffing strategy. Use these data to shape demand as much as is clinically appropriate to maximize utilization of clinical resources across the enterprise.</td>
<td>Create algorithms for deployment of staff which make the most of all resource types while reducing costs and improving regulatory compliance and alignment with labor contracts (if applicable). Use optimization models to determine the right size and right configure for core and/or unit-based staffing. Incorporate experience design methodologies so that varied staff needs are being met.</td>
<td>Right-size and right-configure flexible teams at the hospital and enterprise levels. Identify the staff and financial impact of alternate patient placement and changes in models of care. Develop unit-level schedule templates which optimize resources while taking patient safety and staff preferences into account.</td>
<td>Analyze and improve the systems and processes which impact staffing and scheduling. Engage staff at all levels of the organization to facilitate learning and improve change effectiveness. Showcase the new staffing model in marketing and recruiting efforts to attract and retain talented staff.</td>
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Experience Flow Mapping
Our unique approach of Experience Flow Mapping is a structured methodology to ensure we have an insights-based view of relevant processes and stakeholder needs to graphically demonstrate areas of concern and opportunities for improvement.
A phased approach

The typical workforce optimization engagement follows a four-phased process which can be customized and typically drives results within the third month. Our consultants work side-by-side with our client’s internal resources as a collaborative project team to reduce costs, increase efficiency, and transfer knowledge.

Assessment

We closely analyze the demands of an organization. In collaboration with in-house resources, we extract all relevant payroll and patient volume data from a combination of hospital IT systems and interviews with key nursing and management personnel. We use our Experience Flow Mapping and holistic design approach combined with principles of Lean Six Sigma to evaluate the current-state of staffing workflows, identify areas of delay or concern and their potential causes, and develop initiatives to support improvement.

Relevant policies, procedures, labor contracts, and performance reports are reviewed to create a model which incorporates fluctuating demand, required nurse-to-patient ratios, position controls, and bed and unit configurations. An improved future-state is compared with the current performance to define the imperatives for change. As a result of these analyses, we will develop a project work plan for design, implementation, and sustainability.

Design

Based on the assessment, we design a new framework with the modeled improvements mapped to the existing infrastructure. This helps leverage current applications such as bed planning and staff scheduling. Performance dashboards can be augmented or new dashboards and analytical tools can be created to measure and monitor future performance. Budgets are adjusted to reflect the optimal models and position controls.

New and updated staffing and scheduling processes are documented and approved in collaboration with various stakeholders. A flexible staffing team is created and a recruitment plan is designed, as well as an education plan if necessary, in collaboration with leadership from nursing, human resources, and education services when appropriate.

Implementation

The implementation phase is largely about change management. It involves close interaction between our clinical consultants and our client’s nursing and other leadership teams.

Detailed documentation and migration plans are essential during this phase as new job descriptions, roles and responsibilities, agency use requirements, process workflows, and staffing policies and procedures are introduced.

Sustainability

Sustaining change of this magnitude requires vigilant monitoring, variance analysis, and continual process improvement to assure there is no return to prior practices.

We help organizations leverage strength in experience design and continuous quality improvement methods to integrate project results into ongoing operations management. This includes the creation of metrics, business intelligence tools, protocols, and problem solving algorithms to facilitate real-time enhancements and deployment strategies. Periodic re-modeling may be required if significant changes in supply or demand occur.
Results – for today and tomorrow

When workforce right-sizing is complete, immediate benefits can be achieved. Our proven methodologies provide cost savings while creating a flexible platform to accommodate ever-evolving care models. Our clients should be able to realize substantial annual savings of their related nursing costs. Given that nursing labor costs typically represent at least 25% of a hospital’s total expenditures, margin improvements can be significant.

Once simulation models are built and process improvements set in place, our consultants will create models for various supply and demand scenarios to prepare clients for the future and help them be ready to adapt to changing conditions and future growth.

While nursing may be a hospital’s largest salary expense, this type of workforce optimization is also valuable for your other clinical and support staff.

Additional consulting services

Philips Healthcare Transformation Services offers many other consultative services such as:
• Strategic healthcare planning
• Performance improvement
• Population health
• Experience design
• Facility design and activation
• Data analytics, benchmarking, and information integration
• Program and project management
• Clinical education programs

Learn more

Through transformative, end-to-end engagements, Philips Healthcare Transformation Services can help you unlock opportunities to solve your complex, intertwined challenges of care delivery. We can help you achieve meaningful and sustainable improvements in clinical excellence, operational efficiency, patient safety, and financial performance to improve value to your patients. For more information, please visit www.philips.com/healthcareconsulting.