

Manufacturing	Pharmaceutical	<b>Healthcare</b>	Portfolio	Logistics	Financial	Government	Business
Case Study	Project Review	White Paper	<b>Value Proposition</b>				

**Healthcare Performance Pains**

- Costs for care continue to rise/Revenue is decreasing
- Caregiver stress effects quality of care
- Payer/Insurance issues are squeezing margins
- New Technologies and Systems are not producing the expected ROI
- Increased demand for services with no additional resources
- Downsizing and consolidation
- Heightened community expectations
- CMS Report Cards on Quality Outcomes
- Do more... with less



**Symptoms**

- LOS continues to get longer
- Reduced bed capacity
- LWOT/LWBS increases
- Providers leaving the system
- Nurse and Physician shortage
- Failed system implementations
- Performance is suffering
- Patient satisfaction is on the decline
- Shrinking operating margins

**Diagnoses — Many possible complex and interrelated causes and questions**

- Workflow Process Improvement Initiatives – Which one(s) should be implemented and how?
  - Lean, Six Sigma, Asset Management, Patient Tracking
- Physical building design/constraints – Do we have to expand or just re-design existing facilities?
- New Technologies - How can I prove the ROI on new technology and systems before purchasing?
  - Wireless, RFID/IR , EMR, and others...
- Interdependencies - My process is too dependent on resources outside of my control!
  - Ancillary departments, arrivals and acuities, effective “orchestration” of care components
- Variability - My process is too variable to study with traditional methods
  - Patient arrivals, admission delays, testing and radiology, acuity patterns, seasonal variation
- Staffing & Scheduling - How do I determine the right type of staff, the optimum schedule, and the correct future staffing requirements?
  - Overtime, staff and room scheduling, balancing, team building, long term staff satisfaction

**Cure—ProModel’s simulation based process improvement solutions for Healthcare**

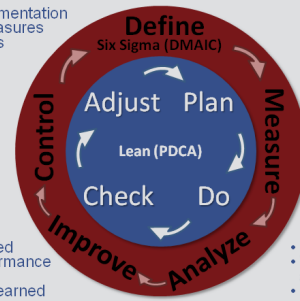
ProModel offers hospitals, health systems, clinics, and healthcare consultants the unique ability to conduct accurate, fast, objective analyses of the specific and systemic impacts of operational, process, staff and layout changes BEFORE decisions are made. ProModel works closely with its healthcare clients to select the right mix of technology, training and consulting services to start with, and partners with them as appropriate for a long term custom implementation path.

A ProModel healthcare solution enables hospital and clinic decision makers the ability to do a better job of planning because of simulation’s inherent accurate predictive ability, as well as to more effectively improve current conditions because it helps determine the root cause of process issues and then identify what very precise changes can be made to improve the existing situation.

## Benefits of a ProModel Process Improvement/LSS Solution:

- Eliminate wasted staff effort by testing ideas before implementing
- Predict and quantify objective positive (or negative!) results of suggested system changes
- Minimize impact on staff and patients by reducing number of kaizen events to achieve goals
- Understand the ripple effect of a single change across the entire hospital
- Test many more ideas than possible with real life trial and error methods
- Reduce wait times and increase patient throughput
- Improve patient quality and satisfaction
- Optimize equipment utilization
- Ensure most effective staffing practices
- Increase revenue and reduce costs
- Maximize productivity and efficiency
- Validate facility designs and expansions/contractions

- Agree on implementation and countermeasures to achieve goals

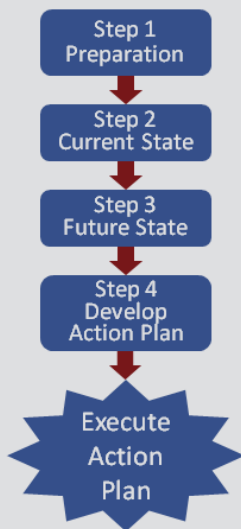


- Select process
- Bound the process
- Determine Stakeholders
- Define Current State
- Define Ideal State
- Simulate Improvement ideas
- Develop action plan

- Evaluate planned vs. actual performance
- Test Scenarios
- Share what is learned

- Execute action plan
- Verify and validate plan assumptions
- Observe and benchmark

The ProModel accelerated Lean/Six Sigma Transformation workshop follows a five step process. Prior to arrival on-site - we will work via teleconference with your assigned point person to gain necessary knowledge of the Value Stream for our event. The boundaries and scope of the process will be agreed upon, and stakeholders from all relevant functional areas will be determined.



**Step 1** - We will tour the facility to walk the process (if applicable), and make any last minute preparations that must be addressed to support the workshop.

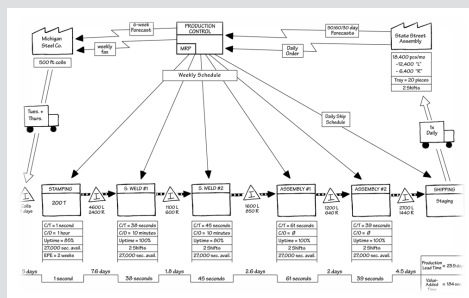
**Step 2** - We will work with you to gain a deeper understanding of the current-state value stream and our consultants will facilitate the creation of a traditional Value Stream Map. We will work together to create a simulation model of the process that underlies that Value Stream, to try and verify assumptions about the observed behavior of the system and provide a baseline against which we can test potential improvement ideas.

**Step 3** - We will focus on defining the ideal future state of the process. This part of the event is critical for setting realistic expectations about how the "Ideal State" will likely behave under real-world constraints such as process variability. We will also explore alternatives for reaching short-term process improvement goals, i.e. the "next current-state" process.

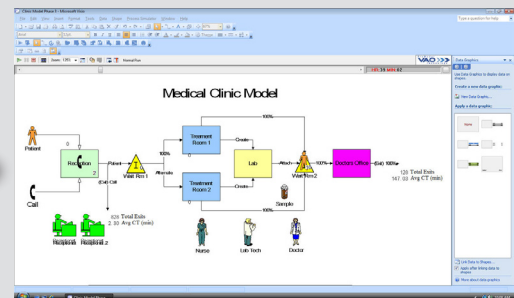
**Step 4** - We will facilitate a design of experiments to test the impact of any proposed improvement ideas on the system. Clear path forward will be established, a schedule to Check and Adjust the plan will be determined, materials for presenting our findings to management will be agreed upon and finalized.

**ACTION PLAN** - We will co-present findings from the workshop to senior management. Reports and animation from the simulation will be a key part of this presentation.

After implementation, ProModel Consultants continue to support 1-day Check and Adjust workshops at appropriate intervals with all stakeholders to sustain the improvement initiative. We also offer the appropriate level of training to transfer the skills and knowledge for you to continue with your Lean/Six Sigma simulation efforts.



Static Traditional Value Stream Map



Dynamic Simulated Value Stream Map/Model