



Quality Improvement in Public Health Example: Operational Efficiency

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The tools and techniques of Quality Improvement (QI) can produce rapid results in improved operating efficiency. Properly applied, QI allows leaders and employees to choose an improvement plan which integrates smoothly with existing priorities. Effective use of data gathering and analysis, leadership, and communication tools maintain accountability as improvement tasks are conducted. Existing resources are coordinated with other priorities to maximize outcomes while eliminating waste. Documentation and performance management techniques ensure alignment with strategic objectives and transparency of operations.

The Orange County Health Department in Florida chartered a QI team to reduce total time for administering child immunizations. The figure below is a Value Stream Map measuring how long each major step in the immunization process took before the process was improved. The QI team identified a number of disruptions to the process, including times when patients' families were waiting to be interviewed and for children to receive their immunizations. Note the triangle shapes, indicating that between 8 and 12 patients were waiting at each clinic "station" during the complete flow of the process. Once the inefficiencies in the process were identified, the QI team and the immunization nurse manager redesigned the clinic flow. As a result, all waiting was removed. Patient time was reduced from 33 to 4 minutes, while overall process time was reduced from 16 to 11 minutes.

Additional efficiency gained through correcting inaccurate and missing client data resolved significant disruption to the immunization team as well as to the billing department. Reliability of information within the client record allowed asynchronous access to the information by billing and expedited checkout so it could be collapsed into the previous process step. Reducing the patient time required to go through the immunization process increased the reputation of the clinic. Word of mouth among the client base encouraged more of the population to use child immunization services.

