

## Why Measurement Matters

In quality improvement, data are used to analyze processes, identify problems, test solutions and measure performance. Data are important because they ensure objectivity. For example, the collection and analysis of data allow us to develop and test hypotheses. Comparing data from before and after a change can allow us to verify that the changes have actually led to improvements.

Specifically, measurement and data are used in quality improvement to:

- Identify opportunities for improvement to initiate QI efforts
- Detect and assess problems
- Verify possible causes of problems
- Inform decision making
- Show if a quality intervention yielded improvement and by how much
- Monitor processes over time to see if the change or improvement is maintained

Data may be quantitative in nature, such as service statistics, or qualitative, such as customer feedback or comments of health workers. Measures are methods of taking data elements, applying consistent definitions, and then reporting results or trend accordingly. There are four types of measures:

### **Outcome Measures**

Outcome measures tell a team whether the changes it is making are actually leading to improvement, that is, helping to achieve the stated aim. These might include readmission rates.

### **Process Measures**

Process measures tell a team whether a specific process change has been accomplished and whether it is having the intended effect. A team often establishes several process measures in the course of its work. The assumption is that improvement in a process measure will have an eventual impact on the outcome measure. These might include steps taken to prevent infection or pressure ulcers.

### **Structural Measures**

Structural measures indicate whether the pre-conditions that are established are more likely to result in effective processes and better outcomes for children and families. Structural measures include the level of training of staff and the staff's characteristics, such as training in proper hand washing technique.

### **Balancing Measures**

Use these measures to make sure that changes to improve one part of the system aren't causing new problems in other parts of the system. These might include use of pressure ulcer prevention materials and how that might impact regular turning of patients.