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About Capital Link

Capital Link is a non-profit organization that has worked with hundreds of health centers and primary care associations for over 15 years to plan capital projects, finance growth, and identify ways to improve performance. We provide innovative consulting services and extensive technical assistance with the goal of supporting and expanding community-based health care. Additionally, Capital Link works in partnership with primary care associations, the National Association of Community Health Centers, and other entities interested in improving access to capital for health centers. For more information, please visit www.caplink.org.
Introduction

The health care environment is rapidly changing, and the Affordable Care Act (ACA) is expected to cause significant increases in the demand for primary care, particularly in low-income communities. Community health centers are expected to play a crucial role in serving the newly insured and remaining uninsured populations, facing the reality of responding to a growing patient base with fewer resources. Now, more than ever, health centers have a greater need to employ efficient and effective management techniques. They need to learn how to both measure and improve performance. But what should be measured? And how can health centers interpret the data that is measured? Moreover, how can this information be transformed into decision-making?

This resource explores the methodology of managing the transition from data to information to knowledge to action with the goal of achieving a high level of performance. It discusses the difference between calculating outputs and measuring outcomes. It also explores the basics of change management, explaining how to identify what’s important and how to transform limited resources into significant improvements. Finally, this document describes the importance of measuring, benchmarking, and evaluating all organizational activities, providing a basic introduction to the tools needed to attain “high performance.”

Now, more than ever, health centers have a greater need to employ efficient and effective management techniques. They need to learn how to both measure and improve performance.
There is no better place to start a discussion about high-performance health care than paying homage to an observation attributed in 1991 to Sister Irene Kraus, then CEO of the St. Louis-based Daughters of Charity National Health System. Stating what for her was simply the obvious, Sister Kraus admonished non-profit health care organizations about the need for fiscal management with the mantra “no margin, no mission.” Since then, many have experienced the truth of this observation, sometimes painfully.

In many ways the struggle to maintain the financial viability of our care-providing organizations has worsened. What’s more, the future seems to offer no respite. It is no secret that entitlement spending at the federal level is slowly devouring more and more of the annual budget, resulting in the need to limit expenditures for Medicaid. These limits are necessary in spite of the reality that the ACA has expanded coverage of Medicaid. Although both major political parties agree that budgets must be controlled, the parties have divergent views on how to do so. Nonetheless, as dependents of Medicaid funding, health centers face financially constricting influences in public policy.

This unfortunate certainty will necessitate that non-profit organizations focus on mission-effectiveness and margin-efficiencies. In other words, success will depend on becoming “high-performing” health centers.
Each health center will have a unique definition of high performance. However, most will strive to be effective in achieving mission and efficient in maintaining financial sustainability. To do so typically means developing a staff that is committed to excellence and possesses complementary talents and skills. It also requires internal and external collaboration, and a penchant for innovation. Only with a true dedication to these characteristics can health centers excel.

How do we drill down to discover how we are performing? What do we use to measure? Answering these questions will reveal the true path to achieving high-level performance. The diagram below represents the entire process, illustrating the structure for this discussion. The subsequent sections in this document provide valuable information on accomplishing each phase.
LEARNING THE PROCESS OF MEASURING AND INTERPRETING

The changes occurring in the health care industry right now require health centers to anticipate the future. The best way to prepare for change is through measurement and interpretation. Being able to recognize the subtle and not-so-subtle differences between data, information, and knowledge can lead to exceptional performance.

The following diagram is a simple representation of the process by which to derive actionable knowledge, starting with the data that is recorded every day in health centers. In order to determine effectiveness and efficiency, however, it’s important to examine the relationship between inputs and outputs, something we will look at in more detail later in this document. What we need to know, in general, is that data alone is meaningless. Without context, the numbers of patients, visits, FTEs, or total expenses will provide us with data but not with information. Data, by itself, cannot help us improve. However, comparing related data points through calculating ratios will provide us with usable information. And, by tracking this data over time and comparing it to other data, we can begin to measure productivity. The following diagram shows the evolution of measurement and thought that must take place to achieve improved productivity. Next we will show how this evolution is accomplished by developing an internal process.
The diagram above demonstrates the internal process we can use to develop useful information for decision making. View ing an organization’s activities through this lens helps define which elements must be measured and evaluated to determine effectiveness and efficiency. Measurable data points include the following:

**Resources/Inputs.** These include the human, financial, organizational, and community resources available that can be directed toward doing the work.

- **Input Examples:**
  - Physical – Hours worked, number of specified FTEs, examination rooms, phone calls answered, supplies, physical space, and equipment (i.e., MRI, x-ray, and lab)
  - Financial – Salaries, equipment lease, overhead costs per square foot, and contract services

**Programs/Activities** are what the organization does with the resources. Programs are services such as medical, dental, behavioral health, and so on. Activities are patients served, visits, revenue, etc. Activities include the processes, tools, events, technology, and actions that are an intentional part of each program’s operation. These interventions are used to bring about the intended changes or results, and include all functions of the organization — operational, clinical, and financial. It is for and from these activities that we derive both inputs and outputs (i.e., providers vs. visits).

**Outputs** are the direct products of the program and service activities and include types, levels, and targets of services. As a rule, outputs can be measured rather easily.

- **Output Examples:**
  - Physical – Number of visits or encounters, patients, prescriptions, cases, X-rays, lab work, referrals, etc.
  - Financial – Value of services (i.e., patient revenues and directed grants)
Outcomes are the specific changes in behavior, knowledge, skills, status, and level of functioning (i.e. wellness) achieved by those you serve, your patients. Outcomes are by far the most difficult metric to measure. In fact, outcomes often defy any attempt to quantify them. Ideally mission and outcomes coincide; whatever your stated mission may be, your outcomes should reflect your success. Not only are outcomes difficult to quantify, but they are also long-term in nature. Unlike outputs, which can be frequently measured, outcomes are evident only by long-term success.

How do we measure progress for outcomes rather than outputs? By using proxy measurement—a method of determining outcomes using calculable quantities or values when you do not have the ability to measure an exact value. Proxy measurement gauges progress of activities or research, predicting probable results. Examples of outcome proxies might be monitoring the incidence of various health problems such as obesity or the incidence of diabetes in your community. Using a proxy measure means that when you can't measure exactly what you want or need, so you measure what you can.

Outcome Proxy Example:

Let’s say that as a part of creating a healthy community you are interested in how effective the members of your practice are in counseling patients in smoking cessation. Since the details are embedded in free text within medical records, in order to make use of computer records you may choose instead to look at how many patients had “tobacco abuse” coded as a diagnosis, or how many received prescriptions for nicotine replacement. This data can be recorded over the long term to help determine outcome progress.

As we measure our inputs and outputs, it is helpful to categorize them by department, service, site, census tract, etc. Categorizing provides a basis for evaluating the effectiveness or efficiency of each directed effort. In turn, this information becomes actionable for comparing and improving performance in specific areas.

Impact is the fundamental change occurring within your targeted service area or patient base in each program over time. Impact is a mix of direct measurement and proxy measurement. It is the accumulation of outcomes that you have achieved.
MOVING FROM DATA TO INFORMATION TO KNOWLEDGE

Once data is gathered (inputs and outputs), the next step is to convert data to information so there is a platform for actionable choices. Remember, you can only manage what you can measure. To become high performing, health centers must know what should be improved before they can determine how to improve it. The process of creating information from data is mostly a matter of tracking the relationship between inputs and outputs over a specified period of time. A simple example is one that most of health centers track already—visits by provider. Knowing the visits by provider ratio is meaningless unless it is compared to other organizations over time. This is called benchmarking.

When your mother or father measured you against the door jamb as you grew, they registered data points. But what gave those data points meaning was the comparison over time. One said you were 4 feet 6 inches, the next said 4 feet 9 inches, but the difference was revealed over time. You grew 3 inches in one year…you saw a trend. Compare that to the year before when you grew, let’s say, 2 inches. Now we have information, you grew faster over time. You could also compare this outcome data to your sister’s growth. You may see that you are growing faster than she is. Or, perhaps, you had set a goal to grow 2 inches this year. By comparison to your goal, you may see that you are doing better than you expected. This is the process of turning data into information.

Benchmarking is the tool used to begin to develop information that provides significance to our measurements. There are three categories of comparison typically used in benchmarking:

1. Comparison to your own previous results (i.e., month, quarter, and year)
2. Comparison to goals you set for yourself
3. Comparison to your peers

These benchmarking comparisons are the basis for determining performance because they illustrate how proficient, effective, and efficient you are, and whether you are high performing, or not. This information provides the knowledge necessary to make management decisions that help health centers become high performing.
WHICH PERFORMANCE INDICATORS SHOULD WE MEASURE?

Generally speaking, we can break down the measurements of performance indicators into two categories: operational and financial, with some measurements being a combination of both.

Financial Performance

The table on the following page summarizes financial performance results. There are various measurable outputs that can be easily tracked from period to period. Annual comparisons are used in this example. The columns provide the most familiar means of benchmarking, i.e. the ability to compare current performance to past performance.

Simply glancing at results across several years, you can begin to convert data into information and observe trends that may represent improving or declining performance. Creating a column on the right that contains either generally accepted “high-performance” goals or peer group averages, gives you immediate knowledge of the quality of your performance. Knowing that you are better, close to, or worse than the meaningful benchmark affords you direct knowledge with which to target potential improvement activities. And, of course, it is through this process that you can create the tools you need to improve performance.

Note the suggested sub-categories within the financial table. These are traditional groupings that financial analysts use to evaluate financial performance. The designations are easily understood. Sustainability numbers help pinpoint intermediate and long-term financial health and viability. Margin is the nonprofit’s substitution for “profit”, which indicates the various means of assessing the depth, frequency, and reliability of excess revenues. Liquidity measures offer an excellent look at the ease or struggle in meeting short-term obligations.
This table provides a sample of measurements that can be helpful to any performance assessment but it is by no means representative of all of the measures that can accommodate such an assessment.
Operational Performance

All health centers maintain operational performance figures that are ultimately used in completing Uniform Data System (UDS) reports. These measures are essential for determining our productivity, or health center efficiency and effectiveness. As an example, the number of encounters per provider allows us to understand our efficiency. An example of effectiveness might be a decline in the number of visits per patient. The following table represents a few of the operational measurements that can be utilized to assess the operational performance of a health center.

As with the financial table, there are selected categories of indicators. Payer Mix data establishes a lens through which to assess changing market and revenue influences, i.e. interpreting trends derived from demographics (age, economic status, chronic vs. acute, etc.) and possible reimbursement dependencies. Revenue Per Patient and Cost Management is a general heading for measurements that provide data that can be benchmarked to reveal how effectively your systems are serving patients, as well as how growth and market trends are affecting the health center. Both factors are important, one gives us a glimpse of current and past outcome effectiveness and the other provides some insight into the changing marketplace. The Patient Management section drills down a bit further to reveal service productivity; i.e. how efficient you are in delivering services.

CONVERTING INFORMATION INTO KNOWLEDGE

The process of measuring and re-measuring, period after period, will eventually offer a reliable picture of performance and provide management with the tools necessary to achieve high performance. A close examination of the information gleaned from benchmarking efforts usually gives a clear idea of what changes could improve performance. It is normally simply a matter of finding bottlenecks, redundancies, or unnecessary steps in your systems. Once identified, the process can then be altered to increase productivity. But if problems are more complex, a remedy can still be found by learning to evaluate problems in more depth.
### Financial Indicator

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Payer Mix of Patient Base</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Medicaid</td>
<td>18%</td>
<td>23%</td>
<td>29%</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>% Uninsured</td>
<td>62%</td>
<td>56%</td>
<td>49%</td>
<td>48%</td>
<td>53%</td>
</tr>
<tr>
<td>% Medicare</td>
<td>9%</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>% Public Insurance</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>% Private Insurance</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>% Other</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Revenue Per Patient and Cost Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPSR per Patient</td>
<td>GCR per Patient</td>
<td>$167</td>
<td>$125</td>
<td>$199</td>
<td>$150</td>
</tr>
<tr>
<td>Operating Revenue per Patient</td>
<td>Operating Expense per Patient</td>
<td>$467</td>
<td>$378</td>
<td>$417</td>
<td>$407</td>
</tr>
<tr>
<td><strong>Patient Management: Users and Visits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Patient/Medical FTE</td>
<td>556</td>
<td>530</td>
<td>430</td>
<td>319</td>
<td>412</td>
</tr>
<tr>
<td>Behavioral Health Patient / Mental Health FTE</td>
<td>300</td>
<td>415</td>
<td>440</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>Dental Patient / Dental FTE</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>522</td>
</tr>
<tr>
<td>Vision Patient / Vision FTE</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>588</td>
</tr>
<tr>
<td>Enabling Patient / Enabling FTE</td>
<td>873</td>
<td>1,325</td>
<td>641</td>
<td>620</td>
<td>177</td>
</tr>
<tr>
<td>Total Unduplicated Patient / Total FTE</td>
<td>237</td>
<td>251</td>
<td>194</td>
<td>180</td>
<td>187</td>
</tr>
<tr>
<td>Medical Visits per Provider FTE (Physician and Mid-Levels)</td>
<td>3,708</td>
<td>2,965</td>
<td>3,094</td>
<td>2,889</td>
<td>3,051</td>
</tr>
<tr>
<td>Behavioral Health Visits per Behavioral Provider FTE</td>
<td>N/A</td>
<td>300</td>
<td>935</td>
<td>1,300</td>
<td>1,034</td>
</tr>
<tr>
<td>Dental Visits per Dental Provider FTE (Dentist +Hygienist)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>597</td>
</tr>
</tbody>
</table>
Once you have measured and benchmarked your data, two-thirds of the process is complete. That is not to say that transforming knowledge into action is as easy as simply calculating and comparing data. The transformation of knowledge to action has its own process that is not so difficult to follow. Simply obtaining new knowledge does not necessarily mean your organization will alter management practices in a manner that will improve productivity. After all, knowing what to do is different than actually doing it.

Breaking Good: To begin to impact productivity, you must focus on what you do well rather than what you do poorly. Why? Because analyzing your successful processes may indicate methods that can be replicated where improvement is needed. If system “A” repeatedly performs efficiently and effectively, and benchmarks as superior performance, break down the process to find out why. Then see if the elements of this system are similar to those in other systems within your organization. By identifying where one system is working well, you can often make changes in another system that significantly improves performance. We can break down one system to get “spare parts” for another.

Know the Real System: Where most improvement efforts fail is in “fixing” a problem that doesn’t exist. The truth is that almost all operating systems don’t work like they appear to on paper. In actuality, most organizations perform as a result of an amazingly complex series of human interactions. There are designed pathways for those interactions to follow, but it never happens exactly as planned. So, when attempting to implement solutions for low productivity, be sure you are changing the way things actually work rather than the way they are supposed to work.

People or Process: W. Edwards Demming, the father of the quality management movement of the 1980s and 1990s, observed that 85 percent of our failures are attributable to our faulty systems rather than to our people. This statistic should keep you from jumping to conclusions that you have a personnel problem. Sometimes you will, but most often problems are found in the process. So always evaluate and, if necessary, repair the process first. Only then should you evaluate individual human performance.

Interaction: “Adjacent possibilities” is a little-known term that represents the most fundamental element of change in every endeavor in human life. All change, whether small and incremental or a major breakthrough in understanding occurs by virtue of two dynamics: having an idea and sharing an idea. In other words, possibilities (ideas) shared with another (adjacency) creates yet another idea…and so forth. This basic, and natural, process should be employed as often as possible when managing organizational change. The lesson here is to involve as many knowledgeable staff and stakeholders as possible in the more difficult evaluation tasks. This is essential, not only to generate as many ideas as possible but also to establish ownership for the changes decided upon.
At this stage, you have determined what impediments to production must be eliminated or altered. The final phase is to simply decide how to make the necessary changes to affect higher productivity.

**Ownership:** By far, the most important necessity in designing and implementing change is to create as much ownership in the alterations as possible. It is true that 75 percent of change efforts fail; but the overwhelming reason they fail is that the staff that are called upon to make these changes don’t understand why and feel they have had no input in the decision about what changes should be made. In many cases, staff may agree with the changes proposed but remain unmotivated because they feel they should have been consulted. So, above all, be sure to involve as many people in the evaluation and design process as possible.

**Design:** This step is the least complicated of any in change management. Determine what needs to be done to implement the change and be certain that the change is designed to alter the input, output, or outcome in a manner that improves productivity. Remember to determine how a system really works (not just how you think it works) when designing the change.

**Implementation:** Implementation consists of assigning tasks and following up to see that they are accomplished. This is the most important task in becoming a high-performance health center; it is the final step in converting data into information, into knowledge, and finally, into action. Though, assigning tasks sounds simple enough, there are some secrets to success in the process.

- **Ownership:** Be sure those involved understand and support the changes to the degree possible.
- **Anticipate Roadblocks:** Get help from stakeholders in identifying what barriers must be overcome.
- **Define Change:** Make sure that all staff understands what changes need to be made and why. The more they know, the more helpful they will be.
- **Support the Change:** Leadership should make a point to frequently support the change agents and encourage those whose jobs have been altered.
- **Focus:** Make sure that focus is maintained until the changes have been completed.
- **Reward Success:** As each change is completed, make sure people receive recognition…even for small changes.
Although “high performance” may be difficult to define, it’s clear that improved performance is rather easily observed. Your goal should be to continuously follow the methodology of measuring and improving productivity until you reach a standard that all can agree is high performance. This goal must be achieved through gradual and incremental improvement. Constant changes in public policy and bureaucratic requirements are being forced upon health centers, making improved performance a moving target. However, with dedication to finding and eliminating blockages and bottlenecks in your systems, you will ultimately achieve high-performance success.