

## **Call Center Metrics: Best Practices in Performance Measurement and Management to Maximize Quitline Efficiency and Quality**

### **OVERVIEW**

This paper is designed to outline and define the most critical operational, service performance, and efficiency-related call center metrics for establishing and maintaining quitline quality. The purpose of this paper is to create a shared language for quitline stakeholders (callers, funders, and service providers) to understand common call center industry metrics and methodologies and how they apply to the unique operations and objectives of the quitline environment.

While there are many different call center performance measures, this paper addresses both qualitative and quantitative measures deemed most relevant to quitline-specific operations from the initial, incoming-call perspective only. It is understood that for service providers offering proactive, multical programs and responding to fax or electronic referrals, incoming calls account for a smaller portion of their total call volume. While essential, call center quality measures related to proactive, multical programs are outside the scope of this paper.

This paper includes an overview of call centers, the most common performance metrics, the performance measurement process, and best practices for using metrics to improve quality, service, and efficiency of quitlines. While written to be of use and interest to the entire quitline community, certain sections of the paper are more technical than others and are likely to be of more interest to quitline service providers than funders. Quitline funders will find the sections on reporting and communication channels relevant to their day-to-day responsibilities.

Although previous Quality Issue Papers have focused mostly on outcome measures, the North American Quitline Consortium (NAQC) believes that the structural elements of quality improvement, such as call center metrics, set the foundation for improving outcomes. As noted in “A Framework for Improving Tobacco Quitline Quality in North America,” many factors in structure and process affect and influence outcome measures. This paper strives to make clear which of those factors are related to call center metrics.

## **SECTION 1: THE QUITLINE AS A CALL CENTER**

- Overview of Call Centers
- Functions of a Call Center
  - Workforce Management
  - Quality Management
  - Technology Management
  - Reporting and Communications
  - Financial Management

## **SECTION 2: PERFORMANCE MEASUREMENT**

- Performance Measurement Strategy
  - Measurement Considerations
  - Customer Perspectives
  - Frontline Staff Perspectives
- Key Performance Indicators
  - Service Measures
  - Quality Measures
  - Efficiency Measures
  - Summary: Performance Measures for Frontline Staff

## **SECTION 3: THE QUALITY MEASUREMENT PROCESS**

- Call Monitoring
  - Side-by-Side Monitoring
  - Silent Monitoring
  - Call-Recording System
- Call-Monitoring Policy
- Quality-Monitoring Forms
  - Quality-Standards Document
- Call Calibration
- Call Scoring and Evaluation

## **SECTION 4: PERFORMANCE REPORTING**

- Reporting Methodologies
- Real-Time Reporting
- Communicating Performance Results
- Reporting Framework
- Communications Channels
  - Communications to Agents
  - Communications to Teams
  - Communications to Management
  - Communications to Funders

## **SECTION 5: CONCLUSION**

## **SECTION 1: THE QUITLINE AS A CALL CENTER**

### **Overview of Call Centers**

A call center is defined as a place where contacts are made and received. It is often the “front door” to a business and is the place where most crucial customer interactions take place. Therefore, its effective and efficient operation is a key ingredient to the overall success of any organization.

The definition of a call center increasingly includes mention of the handling of various types of interactions in addition to telephone calls. Therefore, some individuals and organizations use the term “contact center” to refer to the place where these transactions take place. The terms “call center” and “contact center” are used interchangeably, with “call center” being the most commonly used. The term “call center” best represents the current proportion of interactions that are carried out by telephone versus other contact channels, such as e-mail or Web chat. Even with the explosive growth of the Internet and e-mail transactions, telephone calls remain the primary form of communications in the early 21<sup>st</sup> century.

In addition to defining a call center as a place for customer interactions, it is important to denote what makes an entity a call center and not just a place where telephone calls are answered. A call center is typically defined as an operation where more than one person is responding to contacts and where an interaction can be handled by anyone within a group. In other words, the contact requires a *capability* and not a specific *individual* to handle it.

Given the far-reaching definition of what makes up a call center, ascertaining precisely how many call centers exist is difficult. However, the call center profession employs a large number of employees. Studies from The Call Center School using U.S. Bureau of Labor Statistics estimate that approximately 4.5 million frontline agent positions are active today. Approximately 3 million of these positions are filled by full-time staff and the remaining 1.5 million positions are shared by part-time staff. These millions of call center employees represent approximately 2% of the total U.S. population and about 3.5% of the working population.

There are many different types, sizes, and functions of call centers. Call centers handle various types of customer contacts and serve various needs. Quitlines represent a unique kind of call center. Quitline calls are unlike those of a reservations center handling a hotel stay or booking a flight, or a bank processing a financial transaction. Quitline calls require service from highly skilled agents, and the level of time and investment per customer is higher than that of typical call center transactions. Quitlines are also unique in that they develop proactive outbound calling relationships with their customers, and these outbound calls can make up a much larger share of the traffic than inbound calls. While quitline call centers may be very different from other call centers, the components critical for running a successful operation are similar and most of the same quality metrics apply.

### **Functions of a Call Center**

There are five main operational functions in any type of call center. The performance and quality metrics addressed in this paper are related to and affect each of the call center functions.

#### **Workforce Management**

Since a quitline is at the mercy of incoming calls, the tasks associated with workforce management are among the most important functions of the center. These tasks involve forecasting calls, calculating the optimal number of frontline staff, creating work schedules, and managing daily service levels to ensure the proper number of staff are on the phones to respond to callers.

### **Quality Management**

Because of the quitline's role as the primary point for caller communications, it is essential that these interactions be handled with the utmost quality. The functions associated with quality management include customer surveying, call monitoring, assessing performance, and coaching.

### **Technology Management**

The call center today is filled with technology. From the moment the customer picks up the phone to the resolution of the call, many different technologies come into play. A critical function in every call center and quitline is the effective management of these technologies, including acquisition, implementation, and ongoing maintenance and management. These technologies are generally grouped as call delivery (including telecommunications infrastructure), call handling, and call center management tools.

### **Reporting and Communications**

One of the components driving the call center operation is information. An effective flow of communication is needed between customers and the center, between the center and other business units, and within the call center itself. Many different types of reports need to be generated every day to show the performance of the center as well as that of individuals. Therefore, reporting and communications is another essential function of call center operations.

### **Financial Management**

There is an array of costs associated with running a call center operation. Given the third-party operation of quitlines for funding organizations, there is much emphasis on financial management to ensure the resources in the quitline are being used effectively.

## **SECTION 2: PERFORMANCE MEASUREMENT**

Many different performance measurements are used to gauge the efficiency and effectiveness of a call center operation. Some of these measures are for overall call center performance; others focus on the individual employee. The main purpose of these performance measures is to ensure the call center is meeting its goals and objectives and that all personnel are achieving their work potential.

There are external and internal measures of performance for the call center. The key indicators of performance are typically categorized into service, quality, and efficiency measures. These same categories can also be used to define team and individual measures of performance.

This section provides an overview of the performance definition and measurement process, including a look at external (customer) measures of performance as well as internal measures. These measures will ascertain how efficiently the quitline is using its resources and meeting goals, as well as how individuals and teams are performing.

### **Performance Measurement Strategy**

Every call center operation that supports a quitline must have a performance measurement and management strategy in place. The old adage "if you can't measure it, you can't manage it" is certainly true when it comes to the call center. A significant amount of information is needed to gauge how the quitline, as well as every individual, is performing from an internal operational and external customer perspective.

An effective system of performance measures allows a call center to:

- Review the call center operation as a whole.
- Review the performance of each employee.

- Analyze performance trends.
- Investigate the root cause(s) of problems.
- Optimize the use of call center resources.
- Support strategic plans and objectives.

When setting call center, team, and individual performance goals, it is important to link them to the organization's mission, vision, and goals. A mission statement describes the purpose of the organization. It defines why the organization exists, and, therefore, how it operates and makes decisions. The vision statement for an organization is a bit different in that it describes where the organization wants to be at some point in the future. This vision drives the strategy of the organization as a whole and certainly should define the strategy and performance goals of the call center, as well as the performance goals and standards for each individual within the organization.

To support a quitline goal to expand accessibility and increase caller satisfaction and retention/conversion, goals may be set for "one and done" completion by each access channel, such as telephone or e-mail, or each team may set goals related to "conversions," customer satisfaction ratings, or quality scores. Likewise, performance metrics would be defined to gauge how well each team supports the mission and goals.

Another way to think about defining performance measures is to think about what is required to keep the various call center stakeholder groups satisfied. There can be many different call center stakeholders, but the four primary stakeholder groups for quitlines are customers/callers, the frontline staff, the providers' senior management teams, and the quitline funder. The call center's performance goals and measures should be balanced among these major stakeholders. The basic concerns of these groups can be used as a structure for defining the key performance indicators for the quitline call center.

### **Measurement Considerations**

There are many different sizes of quitlines in North America, ranging from very small to very large. There is also a wide range of technologies available from the various service providers for these quitlines.

The three basic call center technologies that will supply most of the reports and numbers outlined in this paper are (Klenke, 2004):

*Automatic Call Distributor (ACD).* The ACD is the central piece of technology used in a call center. It answers the call and distributes it either to the longest-idle agent or by some skill-based routing definition. It captures all kinds of information about the calls, including blockage and delay times while waiting on a live answer, average handle time, hold times, after-call work, abandon rates, and more.

*Workforce Management.* A workforce management system uses historical data from the ACD to create call forecasts, calculate staffing requirements to meet service goals, and create staff schedules. Several reports are generated related to schedule efficiency, staff occupancy, adherence, and more.

*Interactive Voice Response (IVR).* This voice-processing technology provides an automated menu to callers to either complete a self-service transaction or to route a call as directed by menu choices. Reports are available showing use of menus, exit points, etc.

To some extent, the measurements will be defined and perhaps limited by the levels and sophistication of the technologies employed by the various providers at the sites. For purposes of this paper, a basic level of ACD reporting capability is assumed to be in place. Some sites will have many more reporting options than others because they have the technological infrastructure and funding available for the various reporting technologies and the staff

required to generate, analyze, and report on performance results.

### **Customer Perspectives**

An important key to success for a quitline is listening to customers to learn how effectively the call center is meeting their needs. There are many different ways to listen and get customer feedback. The three primary ways are:

- Customer surveys
- Customer praise and complaints
- Observation of customer interactions

#### *Customer Surveys*

Every call center should perform its own surveys in order to understand the perceptions of callers related specifically to call center transactions. While a quitline funder may conduct (or contract with an outside evaluator to conduct) regular caller satisfaction surveys, these surveys typically focus on products, support services, and a variety of other measures related to the experience of quitting tobacco using the quitline. To truly evaluate how effectively the call center is serving callers and representing the quitline organization, customer surveys solely focused on the call center experience are needed. To learn more about developing and administering customer surveys, please review *Customer Surveying* (Van Bennekom, 2002) and *The Survey Research Handbook* (Alreck and Settle, 1995).

#### *Customer Praise and Complaints*

Another way to get customer feedback is to encourage open feedback from callers and then pay careful attention to what they say. Complaint calls and letters should be viewed as an opportunity to build the customer relationship.

According to the book *A Complaint is a Gift* (Barlow and Moller, 1996), when customers feel dissatisfied with a product or service, they have two options: They can say something or just go away. If they go away, they give you no opportunity to fix their dissatisfaction. Callers with complaints are still talking to you, giving you a chance to fix the problem and salvage the relationship. As much as you may not like to receive negative feedback or criticism, customers who complain can actually be viewed as giving you a gift.

This view of a complaint as a gift starts at the top. The management team's outlook will be mirrored by the frontline staff. Instead of dreading these types of interactions, the management team needs to communicate that the quitline welcomes these interactions. As a result, employees' attitudes will change, and they will learn not to *dread* these types of interactions but to *welcome* them with open ears.

Of course, not all customer comments are negative. It is just as important to note and celebrate the instances where a caller is delighted. Recognize why the caller was happy with the interaction so you can document those behaviors and processes and encourage the frontline staff to continue those practices. Communicate these successes throughout the call center to give the good performers the recognition they deserve and others the positive examples from which they can learn.

Funders and their service providers should establish a clear communications protocol for both praise and complaints from callers so that the voice of the customer can be clearly heard and acted upon at all levels. Do all complaints get directed to the funder for resolution? If not, how is the funder made aware of complaints and how they were resolved? Are there types of complaints that go directly to the tobacco program manager? The answers to these and other questions must be clearly outlined in order to ensure effective communication about these matters between the funder and the provider.

### *Observation of Customer Interactions*

Sometimes customers do not take the time to participate in a survey or send a letter of praise or complaint. To effectively monitor caller interactions every day, it is critical to observe calls on a random basis. Look for things that define a quality transaction in the eyes of the caller and not just by internal definitions of good service.

Surveys are important to this process because they reveal not only how customers feel about certain aspects of the interaction but also what things are most important to them. Quitlines should use this information to ensure that what the customer cares about most is reflected in the monitoring and review process.

### **Frontline Staff Perspectives**

A business cannot be successful if employees are unhappy. Just as it is important to measure how well a call center is doing in the eyes of callers, it is likewise important to gauge each employee's level of satisfaction with the job and work environment.

The most effective way to gauge satisfaction of the frontline staff is simply to talk to them regularly, but a more formal survey process is also useful. Surveys are typically done in writing with employees providing feedback anonymously. This "blind" survey ensures an honest feedback opportunity because an employee will not be identified as one who gave negative input. These surveys are usually 10 to 15 questions with a scale of choices and a few free-form comment areas.

Regular employee-satisfaction surveys can provide valuable insight into the current perceptions of the staff. Surveying should be a routine process that allows and encourages each employee to assess immediate supervisors, the management team, work environment, training, job resources, career opportunities, and so on. If there is dissatisfaction with some recent change or process, it is important to find that out as quickly as possible since such dissatisfaction may affect how the agent performs on the phone.

Trend analyses should be conducted to ensure that performance and satisfaction are moving in the right direction. If your scores are below expectations, doing a survey every quarter may be needed. You might survey less frequently if the work environment is stable and scores indicate overall satisfaction. Share the results with your employees so that they know that their input is being heard. Specific suggestions by employees should be addressed and management's response shared with all employees.

### **Key Performance Indicators**

This paper addresses the most important performance measures for quitline operations from the initial call perspective. There are many different call center performance measures, and the ones selected here are those deemed most relevant to quitline-specific operations. Some of these measures are quantitative in nature while others are much more qualitative. Both are needed to provide a balanced scorecard of quitline performance.

Quitline funders and their service providers should review the following measures carefully and jointly determine which ones should be tracked and how they should be reported. Some recommendations related to measurement are provided, as well as important considerations and tradeoffs to bear in mind when reviewing each measurement goal.

There are very few industry averages to use as benchmarks for these measures. While some general industry benchmarking surveys are available, these surveys represent a very broad perspective across many different industries and sizes of centers. These industry averages have not been included in this paper because, in the author's opinion, the results and conclusions from these studies are often questionable and using these numbers as guidelines may not be

appropriate or reasonable for quitlines. There is a definite need for quitlines to perform benchmarking surveys across the various quitline service providers to begin to establish appropriate benchmarks and guidelines.

The key performance indicators outlined in this paper fall into three broad categories:

- Service Measures
- Quality Measures
- Efficiency Measures

**Service Measures**

Many different measures are associated with service delivery in the call center. Some are associated with overall accessibility on the front end while others are related to the speed of the service provided. Most of the service measures are those that gauge how the overall call center is performing. However, some of the measures can also be indirect measures of team or individual performance.

Service Measures	Call Center	Team	Individual
<b>Accessibility</b>			
Blockage	X		
Hours of operation	X		
Abandons	X		
Self-service availability	X		
<b>Speed of Service</b>			
Service level	X	X	X
Average speed of answer	X	X	X
Longest delay in queue	X	X	X

*X = primary measures; x = secondary measures*

*Accessibility*

**Blockage**

Blockage is an accessibility measure that indicates what percentage of callers will not be able to access the call center at a given time because of an insufficient number of telephone lines. In some cases, the number of incoming telephone lines (also called telephone trunks) is adjusted to achieve a consistent level of access or blockage, such as no more than 2% of callers reaching a busy signal and being forced to retry the call.

Measures indicating percentage of blockage by time of day or all-trunks-busy occurrences are used by most centers. Not having a blockage goal allows a center to meet other goals by simply blocking the excess calls up front. This can have a negative effect on customer accessibility and satisfaction even though the call center statistics look great.

The number of individuals in the call center can have an impact on incoming trunk blockage. If the center is understaffed because the schedule is not being followed, delays in queue will increase, driving up the workload on the incoming trunks and perhaps causing a higher incidence of blockage. However, blockage is typically not a measure of individual performance.

Trunk blockage may be measured by looking at an all-trunks-busy report from the ACD, which shows intervals where all incoming lines were in use and callers received busy signals. Blockage can also be reviewed by requesting a blockage study from the local or long-distance carrier, which shows by interval how many calls attempted to reach a number but received a busy signal.



Having the proper number of incoming telephone lines into a call center to ensure a reasonable level of blocked calls is a traffic engineering process that involves calculating telephone trunk workload and using a random traffic arrival pattern algorithm (called an Erlang technique) to determine the optimal number of incoming lines (Reynolds, 2003).

While there is no industry standard for telephone or trunk blockage, most call centers today have a goal of blocking no more than 2% of inbound telephone calls. There are some centers that have much higher levels of blockage, such as those with a captive caller audience (a utility or insurance claims office, for example) where callers have no place else to go and will retry the call. Other centers in a competitive environment (rental car sales, catalogs, etc.) may have excess capacity so that virtually no caller ever gets a busy signal. Centers providing critical care services, such as 911 emergency centers, also engineer enough lines to ensure incoming calls do not get blocked with a busy signal.

### Hours of Operation

Call centers evaluate the hours of operations to determine if these hours should be extended or shortened. A common measure is the number of calls that arrive outside the normal operating hours of the center. Call volumes and percentage of calls arriving outside normal operating hours are measured to evaluate completeness of coverage.

Information about calls arriving outside normal operating hours may be obtained by caller ID information captured at the site, voice mails left after hours, or hourly call reports from the local and long-distance telephone providers.

There is no industry standard for an acceptable level or percentage of calls that arrive outside normal operating hours. Caller ID information should be analyzed to determine what percentage of callers are calling back during regular hours. A cost-benefit analysis can be done to determine the cost per hour of providing access during low-volume time periods.

### Abandoned Calls

Call centers measure the number of abandoned calls as well as the percentage of calls that abandon, called the abandon rate or abandonment rate. This abandon rate can translate into lost customers, and tracking it may help to identify patterns of abandon behaviors. The abandon rate is measured by looking at the calls that abandon during the defined period of time compared with all calls for that period. The report is generated from the ACD.

Abandon rate is a typical measure of call center performance, but abandon rate is not entirely under the call center's control. While abandons are affected by the average wait time in queue (which can be controlled by the call center), a multitude of other factors influence this number, such as caller tolerance, time of day, and availability of service alternatives.

There is no industry standard for an abandon rate in call centers. Generally, call centers with revenue possibilities have a more ambitious goal for capturing and keeping all the calls, while other centers accept abandon rates as high as 10% to 20%. Because it is affected by so many factors, the abandon rate is best considered in the context of service levels and other service measures.

### Self-Service Availability

Many contacts today are being offloaded from call center agents to self-service alternatives, such as an upfront telephone menu using IVR and/or Web interactions. The percentage of customers who use these self-service alternatives contributes directly to both service perception and the bottom line.

Measures of self-service utilization come from the technology. For example, there are reports available in an IVR system that show what menu options were chosen as well as the places that most people exit or abandon the system.

Reviewing these reports is a good way to review the usefulness and ease of use of the system for design purposes. These reports and their design usually fall under the responsibility of the IT/Telecom area in a call center operation.

Likewise, more information is now available on various Web sites. Web site analytics can provide information about what links and pages are most often visited, how long people spend on various pages, and where they exit. These are useful statistics when designing useful, user-friendly self-service alternatives.

Unlike most call centers, quitlines generally do not attempt to shift callers to self-service options except when there are not enough agents available to answer calls because these services have less evidence of efficacy than telephone counseling. With this in mind, service providers may wish to monitor self-service utilization to ensure that it is absorbing excess calls but not decreasing the use of the quitline's evidence-based treatments.

### *Speed of Service*

Another very frequently used key performance indicator in a call center is the speed of service at which calls are answered. There are several ways to define speed of service in the call center: service level, average speed of answer, and longest delay in queue.

#### Service Level

Service level is the most common speed-of-service measure in the call center. It denotes the percentage of calls that are answered in a defined wait threshold and is most commonly stated as  $x$  percent of calls answered in  $y$  seconds or less. Service level is generally measured by half-hour and can be reported as a cumulative simple average over the day, a weighted average over the day based on the actual calls per half-hour, or can be gauged by the percentage of half-hours of the day in which the half-hour service goal is met. Various forms of service level reports are available from the ACD.

Service level is a measure for the call center and not individual agents. However, service level is directly affected by staffers being available when scheduled, so schedule adherence is the measure of individual performance that is typically in place to ensure that the call center's speed-of-service goal is met.

There are no industry averages for service level, although 80% of calls answered in 20 seconds or 30 seconds is a common goal for centers in the health care field. The speed-of-answer goal drives the calculations for staff requirements and scheduled full-time equivalencies for quitline operations. The abandoned call reports, which show how long callers will tolerate waiting to speak with a quitline counselor, are an important information source for setting the speed-of-answer goal.

#### Average Speed of Answer

Average speed of answer (ASA) is the average delay of all calls for the period. For example, if half the calls go into queue and wait for an average of 60 seconds, and the other calls go immediately to an agent, the ASA is 30 seconds.

ASA is a measure for the call center, not individuals. However, ASA is directly affected by staffers being available to take calls when scheduled, so schedule adherence is the measure of individual performance that is typically in place to ensure that the call center's ASA goal is met.

Most call centers measure service level and/or ASA as the average number accumulated at the end of each day. While this is the most common way to assess these two speed-of-answer measures, this end-of-day average is not necessarily the best way to assess and report these measures.

Calls arrive at a quitline in peaks and valleys. Periods of the day have many calls; at other times, the volume drops substantially. A center might have an ASA goal of 30 seconds. Given the volatile arrival patterns, there will likely be periods of the day in which the center is understaffed to handle the calls and its ASA might be as long as 5 minutes. Conversely, in the no peak hours, most calls will be answered immediately. At the end of the day, the average for each of these periods may yield a 30-second ASA result. However, that number does not reflect the service situation encountered by all people who called the quitline.

This situation is analogous to a person with his head in a freezer and feet in an oven. His average body temperature may be normal, but his head and feet are uncomfortable in the hot and cold extremes. The same is true in the call center. Extreme understaffing creates long delays for callers and stress for overworked staff. Overstaffing results in low productivity and needlessly high costs. If the only metric associated with speed of answer is average service level or ASA at the end of the day, understaffed and overstaffed situations are masked. And, adjusting work schedules to get the right number of people on the phones becomes harder.

The recommended metric for service level and ASA is the percentage of the intervals (hourly or half-hourly) for the day in which the service level or ASA goal is met. This metric provides a much more useful look at speed of answer with more information to address staffing issues and adjust schedules for better work coverage. There is no industry standard for ASA or for the number of periods of the day in which ASA goals should be met. The key is to measure the interval success rate and use that to determine how to adjust schedules to increase the percentage of intervals in which ASA or service levels goals are met.

#### Longest Delay in Queue

The age of the call that has been in queue the longest, or the longest delay in queue (LDQ), is a real-time measure of performance that is used by many call centers to indicate when immediate staffing changes are required. LDQ is also a historical gauge of performance that indicates the “worst-case” experience of a customer over a period of time, such as a day.

LDQ is a call center measure and not an individual gauge of performance, but, like the other speed-of-service measures, this statistic is affected by schedule adherence.

The LDQ measure is an indicator of an extreme situation and can be used as a “red flag” for real-time management. Although it can be used as a historical key performance measure, that use is not recommended because unusual call arrival patterns can make the queue situation look much worse than it really is.

#### *Recommendations on Service Measures:*

- The funder and service provider should discuss the frequency and magnitude of call surges and agree on a maximum acceptable blockage rate, e.g., 1% of all calls. The service provider should ensure that the call center has enough telephone lines to avoid exceeding this limit.
- Hours-of-operation data should be reviewed annually to determine whether an acceptably high percentage of calls is arriving within the current operating hours of the quitline, and if not, whether an increase in hours is warranted and feasible.
- The funder and service provider should discuss and agree upon a maximum average abandon rate. If the abandon rate goes above this maximum, the service provider should work to identify the factors both within and outside of the call center’s control that may have caused the higher rate and communicate those to the funder.

- The funder and service provider should jointly determine the extent to which self-service options will be made available. Service providers should monitor utilization of self-service options to ensure that there is no net decrease in the number of clients receiving evidence-based treatment.
- The funder and service provider should jointly review historical data on service levels, ASA, and LDQ in the context of related indicators, such as abandon rate and agent occupancy, to determine whether incremental improvements in performance on the speed-of-answer indicators are warranted and feasible.

**Quality Measures**

Many measures are associated with quality in the call center. Some are associated with resolution of the contact, while others are related to the actual process of the call.

Quality Measures	Call Center	Team	Individual
<b>Call-Handling Process</b>			
Telephone etiquette	X	X	X
Knowledge and competency	X	X	X
Error/rework rate	X	X	X
Adherence to protocol	X	X	X
<b>Resolution</b>			
First-call resolution rate	X	X	X
Transfer rate	X	X	X

*X = primary measures; x = secondary measures*

*Call-Handling Process*

Several measures of performance are related to the actual process of handling the call or contact. All of these are important in the customer’s perception of how well the contact is handled. Some of these measures are telephone etiquette, knowledge and competency, error and rework rate, and adherence to established procedures on the call.

Telephone Etiquette

Simple courtesy and telephone etiquette are critical in influencing the caller’s perception of how well the call was handled. The degree to which general telephone communications skills and etiquette are displayed is generally measured via observation or some form of quality monitoring.

General telephone etiquette is typically not an overall call center measure but an individual gauge of performance. Following the call center’s guidelines for telephone etiquette, overall communications, and best practices is monitored and scored by most call centers on an agent-by-agent, call-by-call basis.

Knowledge and Competency

One component that leads callers to remark that a call was handled with quality is the ability of the agent or counselor to provide correct and thorough product and service information, and to be competent at handling caller questions and problems.

The measure of knowledge and competency is closely tied to the “one and done” resolution rate covered in the next section. However, observation of knowledge and skills is typically measured on an individual basis, not on an overall call center basis. Call centers typically monitor agents’ calls to determine the extent to which the agents can satisfactorily handle a customer’s request or problem. The level to which an agent can provide product information and solve problems is a critical measure of individual performance related to the quality of the call. In a quitline

setting, agents may be expected to be able to explain all quitline services and to be able to answer all basic questions about tobacco dependence, withdrawal symptoms, health effects of tobacco use, and the use and side effects of quitting aids.

#### Error and Rework Rate

The error and rework rate is the degree to which errors have to be corrected or work redone. Although not a common measure of quality call processing, many call centers track the errors made on calls and the rework associated with those errors because of the additional costs they create for the company. In addition to tracking the error and rework rate overall, many call centers also track these elements by individual agent to identify performance issues, and training and development gaps.

There are no set reports from the ACD for this measure. Measuring error and rework rate generally involves a quality-monitoring process with both call and paperwork reviews.

#### Adherence to Protocol

Adherence to protocols, such as workflow processes or call scripts, is another essential element of quality in the call center. Ensuring callers receive a consistent call-handling experience regardless of the contact channel or the individual agent involved in the contact is particularly important to the perceived quality of the contact.

Adherence to protocols and procedures is a crucial element of individual agent performance in the call center. Adherence to telephone procedures and call scripts is typically monitored through both general observation and a more formal quality-monitoring process.

Quitlines, especially those that serve more than one state, have the contractual requirement to adhere to and manage various state protocols.

#### *Resolution*

Two main measures are associated with the resolution of calls: calls completed to satisfaction within one contact and calls transferred.

#### First-Call Resolution Rate

The percentage of calls completed within a single contact, often called the “one and done,” or resolution rate, gauges the ability of the center as well as of an individual agent to accomplish the call in a single contact without requiring a transfer to another person or area, or without needing an additional call to assist the caller.

The satisfactory resolution of a call is tracked by type of call and, perhaps, by time of day or by group. The one-call resolution rate is also an individual gauge of performance that measures an individual’s capability to handle the call to completion without requiring assistance via a transferred call or a subsequent call, meaning higher efficiency and better service.

While resolution rate is a critical measure for many call centers, this measure requires some adaptation when applied to a quitline. The goal of the quitline is to move eligible callers into a counseling program that will likely result in several future calls, not to complete that person’s needs in one call. For a quitline, the resolution rate will not be a “transactional” measure of percentage of calls handled with no return rate but rather a “satisfaction” measure of whether the counselor was able to address the needs and questions of the caller. In a quitline call center, the resolution rate is a quality-monitoring score rather than a transaction rate measured by the ACD.

**Transfer Rate**

The transfer percentage indicates what portion of calls has to be transferred to another person to be handled. Tracking transfers and measuring the percentage of transfers and the destination of the calls will indicate problems due to incorrect routing and sorting on the front-end processing of a call. For example, publishing an incorrect number may cause a call to arrive in the wrong place.

There are many different reasons why a call is transferred, and tracking these can help fine-tune routing strategies. These may include transferring to another quitline when the caller is out-of-state, transferring to another counselor who previously worked with the caller, and transferring to a supervisor because the agent cannot answer the caller's questions. Transfers should be tracked at the individual level in order to identify performance gaps that need to be addressed.

*Recommendations on Quality Measures:*

- The service provider should develop clear standards for the call-handling process and train staff to meet them. Call-handling process data should be regularly reviewed at all levels of the organization to ensure that call center agents are meeting the standards.
- The service provider should adopt an evaluation strategy, such as customer surveys, to obtain qualitative information on the intake process from the perspective of callers.
- Recognizing that quitline service is lengthier than what most call centers provide and that it typically extends over several calls, the service provider should track the extent to which callers complete intake and begin receiving service in a timely, straightforward manner. Excessive delays and transfers are likely to decrease callers' satisfaction with the program.

**Efficiency Measures**

Several metrics used to measure efficiency in the call center provide an important view of how well resources are being used. Contact-handling measures provide a measure of efficiency for individual agents while resource utilization and cost-efficiency measures are tracked to ensure overall operational efficiency.

<b>Efficiency Measures</b>	<b>Call Center</b>	<b>Team</b>	<b>Individual</b>
<b>Contact Handling</b>			
Average handle time	X	X	X
After-call work time	X	X	X
On-hold time	X	X	X
<b>Resource Utilization</b>			
Agent occupancy	X		
Staff shrinkage	X	X	X
Schedule efficiency	X		
Schedule adherence	X	X	X
Availability	X	X	X
<b>Cost Efficiency</b>			
Conversion rate	X	X	X
Cost per call	X		

*X = primary measures; x = secondary measures*

*Contact Handling*

Several performance metrics indicate how efficiently the actual customer contact is being handled. These measures include average handle time, after-call work time, and on-hold time.

### Average Handle Time

The most common measure of contact handling is the average handle time (AHT), which is talk time plus after-call work. AHT is used when determining overall workload and staffing requirements. AHT reports are available from the ACD.

To accommodate differences in calling patterns, AHT should be measured and identified by time of day as well as by day of week. It measures overall call center performance and team and individual agent performance. Although handle times will vary based on call content, an agent should typically deliver a consistent handle time within an acceptable range. However, overemphasizing short AHT can reduce the quality of the interaction and decrease the conversion rate.

There is no industry standard or recommendation for AHT. AHT numbers should be gathered and analyzed primarily to determine if agents are in an acceptable range of performance and whether differences among agents are associated with different conversion rates.

### After-Call Work Time

One of the components of AHT that is considered to be the most variable and the most controllable is the after-call work (ACW) portion of the contact. ACW is the time, after the conversation, that the agent spends filling out associated paperwork, updating files, and doing similar work related to the call before the agent is ready to handle the next contact. The ACD provides this measure.

ACW should be measured and evaluated over time to determine the appropriate amount of time needed to accomplish the necessary tasks. This overall call center ACW number will then typically serve as the benchmark against which to measure an individual agent's ACW time. Comparisons between agents should be made with similar types of calls because the requirements of different call-handling situations can vary significantly.

ACW should be measured by type of call as well as by individual. Measuring ACW by time of day is also useful. When understaffing results in high occupancy for staff and very little idle time between calls, ACW time is typically higher because agents stay in the non-call state to catch their breath between calls. Observing this type of metric will indicate those agents in need of coaching to prevent their unavailability during already understaffed times.

### On-Hold Time

On-hold time is the amount of time a caller spends on hold during the course of the conversation. Obviously, the goal is to minimize the number of times a caller is placed on hold, as well as to minimize the length of the on-hold time. Measures of on-hold time are available as ACD reports.

Most call centers measure on-hold time, but it is not necessarily one of the top performance indicators. An overall high percentage of on-hold time may indicate that system performance is slow or that access to multiple systems is delaying the agents in processing callers' requests.

On-hold time is more typically used as a gauge for individual agents and can indicate insufficient knowledge or other performance gaps. Call centers will want to review the percentage of calls an agent has to put on hold as well as the length of the hold time.

There is no industry standard for on-hold time. The goal is to minimize the number for increased call efficiency and service to the caller.

### *Resource Utilization*

#### Agent Occupancy

Agent occupancy is the percentage of logged-in time an agent is busy on a call or doing after-call work compared with available time. It is calculated by dividing workload hours by staff hours.

Agent occupancy, or staff occupancy, is one of the most important numbers to measure related to efficient use of personnel. If occupancy is too low, agents are idle. If occupancy is too high, agents are overworked. The size of the center or quitline has a major impact on call center staffing and the related staff occupancy. Centers handling larger volumes of calls will naturally be more efficient than smaller ones because of economies of scale.

As seen in the example below, doubling the call volume does not require two times the number of staff to meet the same service goal of 80% in 20 seconds. As the volume grows, the staff-to-workload ratio gets smaller and the agent occupancy goes higher.

<b>Calls per Hour</b>	<b>Workload Hours</b>	<b>Staff Required</b>	<b>Staff Occupancy (workload/staff)</b>
100	8.33	12	.69
200	16.67	21	.79
400	33.33	39	.85
800	66.67	74	.90
1600	133.33	142	.94

With a higher volume of calls, there is a greater likelihood that when an agent is finished with a call, there is another call for that agent to handle, resulting in increased efficiency and higher occupancy. With a bigger volume of calls, each agent has the opportunity to process more calls each hour. Each agent spends less time in an idle or available state, waiting for a call.

Agent occupancy is calculated by dividing the amount of workload by the staff hours. In the previous table, with 12 staffers handling 8.33 hours of workload, agent occupancy is only 69%. At double the call volume with 21 staffers in place, twice the workload (16.67) is being handled without doubling the workforce, so each person is busier. In this case, occupancy has increased to 79%. As the volume of calls grows, increased economies of scale come into effect, meaning occupancy goes higher and higher.

While it is desirable for staff to be productive and busy, asking staff to stay occupied at a 94% rate is not realistic. Most call centers aim for the 85% to 90% range since occupancy rates higher than that lead to undesirable call-handling behaviors and a high staff turnover rate.

Although the 85% range is desirable, not every call center or agent group can reach that number. Small centers that wish to deliver an 80/20 service level and have sufficient staffing in place may not be able to achieve occupancies above 70% or 80%. Larger centers have the opposite problem. Their large group efficiencies may allow them to staff for the same 80/20 service level and have occupancy numbers over 95%. In such cases, these providers have to add extra workers to bring occupancy down to a tolerable level.

Some ACDs supply direct occupancy numbers, but others do not. If occupancy is not provided, it can be calculated by dividing workload hours by the number of agents on the phones.



### Staff Shrinkage

Staff shrinkage is the percentage of paid time that agents are not available to handle calls. Classified as “nonproductive time,” staff shrinkage is made up of meeting and training time, breaks, paid time off, off-phone work, and unexplained time off the phones.

Staff shrinkage is an important number to track because it plays an important role in how many people need to be scheduled for each half-hour. Most of the shrinkage categories, such as paid vacation time and breaks, training time, and meetings, are fixed and largely out of the center’s control. Other shrinkage can be controlled and should be tracked closely to ensure productivity is maximized.

There is no industry average for staff shrinkage. Some centers have staff scheduled off the phones for many different activities, including training, meeting time, or other kinds of work. Shrinkage percentages may be in the 50% range for centers where agents do a variety of tasks other than answer phone calls. On the other hand, in centers where the sole role of the agent is to answer incoming calls, shrinkage may be 20% or less.

Tracking the shrinkage and how much time goes into each category allows a call center to effectively schedule staff and manage shrinkage appropriately. For example, if staff shrinkage is 25% and 30 staffers are needed on the phones to deliver the desired speed of answer, then a calculation of  $30/.75$  would yield a schedule requirement of 40 people. In other words, 40 people need to be scheduled so that when the 25% shrinkage is factored in as unavailable phone time, there will be 30 people to staff the phones.

### Schedule Efficiency

Workforce management is all about getting the “just right” number of people in place each period of the day to handle customer contacts—not too many and not too few. Schedule efficiency measures the degree of overstaffing and understaffing that exists as a result of scheduling design. Also referred to as the net staffing measure, it indicates how many staffers the center is “over” or “under” for each hour or half-hour of the day.

Schedule efficiency is generally viewed as one of the most important measures of productivity or efficiency in a call center. This critical measure indicates whether the most expensive resource in the center—the frontline staff—is being used in the best way possible to match workforce to arriving workload. The measure itself can be a manual one, comparing actual scheduled staff to required staff based on actual workload by interval. If the quitline service provider has an automated workforce management system, the schedule efficiency report will be generated by the system.

Schedule efficiency is best measured by looking at how many intervals of the day the net staffing is within a reasonable range. While the ideal is a net staffing of zero (no understaffing or overstaffing), that number is nearly impossible to hit. Most centers set an acceptable range of under/over and then measure how many intervals meet the goal. Some centers may have a net staffing goal that is very small (+/- 1 or 2 staff), while larger centers may have a higher net goal (+/- 5 staff). The key is to measure the number of intervals or percentage of intervals that meet the goal. Much like when measuring service level or ASA, it is dangerous to simply do an overall number for the day, where the over-staff and the under-staff cancel each other out. For example, an overstaffing of five people in one hour does not balance out an understaffing of five people in another hour. Rather than the “net zero” for those two hours that would be obtained by averaging, the important finding is that neither interval met the schedule efficiency goal.

### Schedule Adherence

Schedule adherence measures the degree to which the agents work the specific hours scheduled. There are two forms of adherence: total hours worked and specific hours worked. The first looks at the total hours scheduled for the day and compares that number to the total hours worked. (In most call centers, this number is generally referred to as

*compliance* rather than *adherence*.) True schedule adherence matches the exact hours scheduled to the exact hours worked.

Schedule adherence is an important measure of team and individual performance in the call center because it affects so many other measures. Each agent should be evaluated on total hours worked versus scheduled, as well as adherence to the defined work schedule of start and stop times, scheduled breaks, and other activities. This is an important individual performance metric because agents can largely control their adherence to the schedule.

There is no industry standard for schedule adherence. Some centers set goals as high as 98% or 99% adherence for the day; other centers have adherence goals of less than 90%. Adherence goals are generally established by determining a reasonable “safety net” of minutes for the day when the agent can be out of adherence and then translating that number into a percentage goal. For example, if agents get 30 minutes of “free” time per day, and they are paid for 420 minutes on the phone for the day, the adherence goal would be 94%.

### Availability

Availability is the percentage of time that staff are logged in and available to take calls. Availability is typically viewed as an overall measure and may or may not be linked to schedule adherence. Availability can be affected by the amount of time that is needed off the phones to do research, projects, and other activities.

Availability is another important gauge of team and individual performance and can be measured as hours of time available or percentage of time available. The call center may measure total hours of availability and availability by team or by individual agent. If the agents are adhering to the schedule they are given and available time is low, the problem can only be solved at the team and call center level by changing the scheduled activities.

### Cost Efficiency

There are two primary categories of success for a quitline. The ultimate success is, of course, when a caller agrees to counseling and quits smoking as a result. One of the primary measures of this success is the conversion rate. Here, conversion rate will be much like a revenue-generating call center would measure success: the percentage of calls that result in a “sale.” For quitlines, this “sale” is registration into a program or agreement to talk with a counselor. The other category of success is to operate the quitline as cost-efficiently as possible. The overall measure of financial efficiency is cost per call.

### Conversion Rate

The standard conversion rate in a call center refers to the percentage of calls in which a sales opportunity is translated into an actual sale. It can be measured as an absolute number of sales or as a percentage of calls that result in a sale. For quitline call centers, this conversion rate should refer to the absolute number or percentage of tobacco users who agree to receive cessation counseling and are transferred to a counselor. In some cases, when intake staffers are also counselors, there is no need to transfer callers. For quitlines operating under this model, the conversion rate should be the absolute number or percentage of tobacco users who agree to counseling and receive it, either immediately after intake or later by appointment.

### Cost per Call

Cost per call is a key performance indicator for most call center operations. Regardless of whether it is tracked as only a labor cost or as a fully loaded cost, the cost-per-call figure is used to evaluate how efficiently the company’s financial resources are being used and what its return on investment is.

The cost-per-call rate can track just labor costs per call or it can include all the telecommunications, facilities, and other service costs in addition to labor costs. When determining the cost per call, the components being used must be

defined and used consistently in evaluating how the call center is using financial resources over time. Although cost-per-call rates are commonly used to compare one company or site with another, this practice is not recommended because the components included and the types of contacts may vary.

*Recommendation on Efficiency Measures:*

- In order to maximize the quitline’s potential for population impact, the funder and service provider should jointly determine targets for efficiency measures, focusing in particular on agent occupancy, conversions, and cost per call.

**Summary: Performance Measures for Frontline Staff**

The performance measurements and how they apply to the overall call center and the individual agent that have been discussed in this section are summarized in Appendix A. A balanced set of measures for frontline staff is critical and should include both quantitative metrics as well as some qualitative measures.

Performance Category	Performance Measures for Frontline Staff	Quantitative Measure	Qualitative Measure
<b>Service</b>	Schedule adherence	X	
<b>Quality</b>	First-call resolution rate	X	X
	Transfer rate	X	X
	Telephone etiquette		X
	Competency/knowledge		X
	Error/rework rate	X	X
	Process adherence		X
<b>Efficiency</b>	Schedule adherence	X	
	Availability	X	
	AHT	X	
	ACW time	X	
	On-hold time	X	
	Conversion rate	X	X

The most common quantitative measures of performance are schedule adherence, availability, AHT, ACW, on-hold and transfer rates, and conversion rate. Agents should also be evaluated on qualitative measures, including general telephone etiquette and communications skills, product and service knowledge, completeness of the call handling, and adherence to defined procedures and processes.

The qualitative measures track what an agent says or how the agent interacts with the customer. Some call centers want to know if the agent said the organization’s name in the greeting; used the caller’s name appropriately; used the correct tone, pitch, and volume; and closed the call appropriately.

Performance management begins with defining performance goals and expectations. There are many quantitative performance expectations (defined in the previous section), such as schedule adherence percentage, AHT, call transfer rate, conversion rate, and so on. Other expectations will be defined around qualitative goals, such as portrayal of positive image, display of active listening skills, and use of proper pacing and voice quality. Many of these need to be defined at a behavioral level for employees to fully understand what is expected and in order to measure their performance fairly and objectively.

Once these goals and expectations have been set, the next step is to gather information about actual performance versus desired performance to identify performance gaps and problems. There are many sources of quantitative data upon which to draw. Qualitative data will likely come from observation and monitoring.

### **SECTION 3: THE QUALITY MEASUREMENT PROCESS**

Measuring how well frontline staffers meet qualitative standards is typically done through a quality-monitoring process. Some call centers want to know if the agent said the organization's name in the greeting; used the caller's name appropriately; used the correct tone, pitch, and volume; and closed the call appropriately. Each of these items can be observed by using a manual or automated process with a quality-monitoring form.

#### **Call Monitoring**

Monitoring may be done with side-by-side observation, remote monitoring of both telephone calls and screen activities, and recorded monitoring.

#### **Side-by-Side Monitoring**

Side-by-side monitoring involves simply sitting next to the employee and listening to how the call is handled. The best way to accomplish this task, with minimal disruption to other agents, is to "double-jack" into the agent's telephone set. A double-jack refers to the agent's telephone set having dual headset connections that enable the agent and observer to connect directly into the same telephone set using separate headsets. The observer's headset will be in mute mode to enable hearing but not speaking.

The advantage of this approach is that the observer is at the agent's side for "on the spot" coaching and guidance. The biggest disadvantage of using side-by-side monitoring is the potential for agents to be nervous when they are observed in very close proximity. Some agents are more comfortable without someone "watching over their shoulder," so the side-by-side monitoring procedure should be combined with one or more different monitoring procedures.

#### **Silent Monitoring**

Silent monitoring allows an observer to access a call in progress, listening to both sides of the conversation without either the caller or the agent knowing that someone is listening. There are two major drawbacks to silent monitoring. One is that the monitoring must be conducted when a call is happening in real-time. Call volumes fluctuate, making it difficult to accomplish a certain number of observations per shift. In addition, catching a call at the beginning is tricky. Listening to a partial call and then waiting for the next one to begin can waste the observer's time. Another drawback is that there is no record of the call except in the observer's mind and notes. During the review with the agent, the agent may deny having said something, or may not understand what the observer means by an "unenthusiastic manner," for example. This lack of a record can be particularly problematic if a performance improvement plan or disciplinary action is being considered.

#### **Call-Recording System**

Remote monitoring and recording of the calls is typically accomplished through a call-recording system. While some organizations record every call for business purposes, most do not. The call-recording system is usually programmed to record randomly, sampling each agent at different times of day and week to ensure a fair sampling. Generally, the programming calls for a specific number of calls or minutes to be recorded per agent.

The system may also record the data screens and entries the agent performs during the calls so the review can include exactly what the agent saw on the screen and what keystrokes she entered as she processed the call. This information

will be displayed on screen as the call is reviewed to help determine if the agent is navigating through the system in the most efficient way, making appropriate notes in the customer files, and accessing the right information to solve the customer's problem.

The call recordings generated by the system can be stored for future use or deleted immediately after review. The random selection process supports a fair and unbiased review, which can be important when disciplinary issues arise or accusations of bias are made against call center managers. If the system instructions are to gather the same number of calls or minutes for each person sometime during the shift, there can be little risk of the process unfairly targeting one individual or group of agents.

Most of these systems are able to selectively record a specific agent or calls to a particular group, but this is the exception rather than the rule in actual practice. Some centers choose to record all calls handled by trainees, for example, or those that come from a high-value customer group. However, in most centers, the calls are recorded randomly.

Another real benefit of having a call-recording system in place is the ability to review calls along with the employee. Many call centers have a practice in which the supervisor and agent listen to a call together and score it independently. This allows the agents to observe their own calls for self-evaluation purposes in addition to the feedback that the supervisor provides. With this tool, agents cannot deny certain behaviors because the evidence is recorded.

An additional capability of call-recording systems is the ability of an agent to record a call in progress. This feature was originally intended to record abusive or threatening calls, but it is being used in many centers as a voluntary self-assessment tool. One call center uses this feature to have a "Worst Call of the Week" contest in which agents can record a particularly difficult call to demonstrate how they used proper call-handling techniques to handle it.

## **Call-Monitoring Policy**

Every call center that monitors calls should have a formal quality-monitoring policy in place. Much of the policy will outline the process by which employees will be notified of the call-monitoring guidelines, both during the hiring process as well as on an ongoing basis. The policy will also describe the tools and instruments to be used and how reviews/scores of calls will be communicated to the staff.

## **Quality-Monitoring Forms**

Every call center needs its own version of a quality-monitoring form. Quality-monitoring forms should be relevant to the business, user-friendly, fair, objective, and, most importantly, useful as a coaching tool. The form should be carefully constructed, not just borrowed from another center, and updated as needed to reflect the changing needs of the business.

The form should be reviewed regularly by a team of representative frontline agents, supervisors, and quality assurance specialists. The team should, ideally, consist of eight to ten people with one person designated as the facilitator.

The review team should consider the call center's main performance objectives (which have been set to match corporate objectives). Note which goals are most important and which call center goals support those goals. The main purpose for monitoring calls should be to ensure that those call center objectives are being attained on each call. Sample corporate goals are:

- Create unified customer experience.
- Improve/maintain accuracy and efficiency.

When designing the overall form, organize the sections according to the order and flow of the call for easy use and speedy completion. Common sections that follow a logical order, along with associated behaviors, are listed in the table below:

1. Opening	2. Discovery
<ul style="list-style-type: none"> <li>• Uses standard greeting</li> <li>• Verifies customer account</li> <li>• Updates customer information</li> <li>• Offers assistance</li> </ul>	<ul style="list-style-type: none"> <li>• Clarifies purpose of call</li> <li>• Asks fact-finding questions</li> <li>• Identifies correct nature of call</li> </ul>
3. Resolution	4. Closing
<ul style="list-style-type: none"> <li>• Matches best option to need</li> <li>• Explains delivery schedule</li> <li>• Follows resolution procedure</li> <li>• Promotes additional services</li> </ul>	<ul style="list-style-type: none"> <li>• Summarizes actions taken</li> <li>• Offers additional assistance</li> <li>• Thanks customer for business</li> </ul>

### **Quality-Standards Document**

Every call center should have a quality-standards document that is a comprehensive reference for all the components of the quality-monitoring form. All the definitions of objectives should be included, along with samples of positive and negative behaviors to watch for in the call-monitoring process. This document should be updated regularly to add new examples and remove outdated ones.

Both supervisors and agents should be involved in updating this document. Review small pieces of it on a regular basis to remind agents what the definitions of desirable and undesirable performance are, as well as to refresh and update the document.

For each behavior, include the specific steps for performing the behavior. Include notes about when it should be performed during the call. Include what call center goal or corporate goal the behavior supports to demonstrate its relevance.

### **Call Calibration**

An important step in the quality-monitoring process is the regular calibration of calls. Call calibration is the process of standardizing the call evaluation and scoring process. The ultimate goal of the process is to make sure that when any two people listen to and evaluate a call, they arrive at the same score. Calibration ensures fairness and objectivity in the evaluation and scoring process, and is an absolute requirement for improvement through the call-monitoring process.

There are benefits of call calibration for everyone in the call center, as outlined in the table below:

Agent Perspective	Supervisor Perspective
<ul style="list-style-type: none"> <li>• Promotes consistency</li> <li>• Ensures same scoring, regardless of who monitors or scores</li> <li>• Shifts focus away from question of fairness and toward achievements and improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Defines call standards</li> <li>• Clarifies procedures and processes</li> <li>• Expands skill and/or knowledge base</li> </ul>
Management Perspective	Customer Perspective
<ul style="list-style-type: none"> <li>• Provides consistent service to customers</li> <li>• Maintains integrity of quality program (fewer agent complaints)</li> <li>• Supports center performance standards</li> </ul>	<ul style="list-style-type: none"> <li>• Improves service</li> <li>• Promotes more reliable service</li> <li>• Promotes more consistent service</li> </ul>

Three items are needed for a call-calibration session: the quality-standards document with all the definitions of objectives and desired behaviors, the quality-monitoring form, and some sample calls. The process also requires that participating individuals have been trained in the call-monitoring process and are familiar with definitions in the quality-standards document.

These are the steps in the call-calibration process.

1. Gather a representative group. This group should include supervisors, agents, and quality assurance staff. Depending upon the type of call being reviewed, it may be wise to include staff from other areas of the company. The optimal size of the group is eight to ten people. If more than 12 people are going to participate, the group probably should form two teams.
2. Randomly select a sample of calls. Sample calls from various agents at various times of day. Ask for volunteers to be monitored so that nobody feels like they're being "picked on" during the review process.
3. Listen and score the calls. Everyone should listen to the calls without comments or visual reactions, including laughing, rolling of eyes, etc., or anything that might influence another person's reaction to the call. The goal is an unbiased score from each person without anyone influencing others in the scoring process.
4. Treat each call independently. Even if the reviewer knows the person who took the sample call, the reviewer should try not to think about what the agent "usually does" on a call, or that the call may not be typical. Do not let that person's status in the call center or overall performance influence the score for that particular call.
5. Start calibration with a definition of excellence. Discuss several calls without using the monitoring form, focusing on what was "excellent" about each call. Those items may be added to the definitions in the quality-standards document. If there were some problems with the calls, discuss what an expert agent might have done differently. Note any negative behaviors exhibited and add those to the "not-to-do" list in the quality-standards document.
6. Once definitions are set and everyone is clear on the attributes of an excellent call, score the calls using the monitoring form. Ensure that the definitions created in the discussion of excellence are represented on the form.
7. For each call, list each judge's score on the board without any rationale of how the scores were determined.

8. Ask the person who rated the call the lowest to explain his or her rationale. Determine what proficiencies need coaching and seek agreement from the group. The majority of the group should agree that the identified coaching opportunities are valid.
9. Have someone take notes regarding recommendations or changes in proficiency definitions.
10. Ensure that all the changes agreed to in the session are incorporated into the quality-standards document and are added to the monitoring form.

## Call Scoring and Evaluation

There are many different ways to evaluate and score various components of a call. Some call centers prefer the “Yes/No” or “Pass/Fail” checklist, where the form indicates whether the agent displayed the desired behavior. Assuming that the behaviors are adequately defined, this is a completely objective scoring process.

Yes/No scoring is illustrated in the scorecard below. This first example shows just the customer service skills from a more comprehensive quality-monitoring form that also includes sections for sales, technical, and specialized skills. In this scorecard, an agent’s performance was observed over four calls. For some of the traits, the agent had the opportunity to demonstrate mastery of that skill or procedure on every call (such as prompt answer, positive corporate image, attentive listening, and using the customer name). On some calls, the agent did not have the opportunity to demonstrate a skill. For example, only two of the four calls required the caller to be put on hold during the call, and only one call provided the opportunity to demonstrate use of problem-solving steps and techniques.

Customer Service Skills	Opportunity	Compliance
Delivered prompt answer and salutation	1111	11
Used agency name in greeting and closing	1111	1111
Used attentive listening skills and responses	1111	111
Adapted call to customer tone and pace	1111	11
Demonstrated proper hold technique	11	1
Used caller name during call	1111	11
Used problem-solving steps to diagnose problem	1	1
Displayed empathy and support	11	11
Maintained control of conversation	1111	1111

As recorded on this scorecard, the agent had the opportunity to demonstrate proper behaviors 29 times, shown by the marks in the Opportunity column. The marks in the Compliance column show the number of times the agent displayed the proper behaviors or processes. In this example, the agent did the right thing 21 times. Therefore, the agent’s score is 21 out of 29, or 72%.

In this scoring process, there is no judgment made about how well the agent displayed any of the skills. The agent is credited with a score as long as the behavior was displayed according to the definition of the proper behavior in the quality-standards document.

In addition to this type of Yes/No monitoring form, other forms can be developed that allow calls to be scored in a variety of categories, with a rating scale for each element (i.e., 5 for excellent, 4 for good, 3 for fair, 2 for poor, and 1 for unacceptable). This type of scoring has the advantage of showing a range of performance on each behavior or skill, so agents can better see their strengths and weaknesses. However, it also adds some subjectivity to the scoring process unless each rating has a specific definition and example showing what would earn a 5 score versus 2 score for each skill. There is more work involved in this approach, but it communicates more specifics about agent performance.



## SECTION 4: PERFORMANCE REPORTING

Once performance goals have been set and a system of measures developed, the final step in the performance measurement process is to develop a reporting mechanism. Reports inform management and employees about performance and help identify areas for improvement or corrective action. When developing a reporting strategy, providing information upon which decisions can be made or behaviors changed is critical.

What Agents/Team Should See	What Management Should See
1. Telephone etiquette	1. Blockage
2. Knowledge and competency	2. Hours of operation
3. Error/rework rate	3. Abandons
4. Adherence to protocol	4. Self-service availability
5. First-call resolution rate	5. Service level
6. Transfer rate	6. Average speed of answer
7. Average handle time	7. Longest delay in queue
8. After-call work	8. First-call resolution rate
9. On-hold time	9. Transfer rate
10. Schedule adherence	10. Average handle time
11. Availability	11. After-call work
12. Conversion rate	12. On-hold time
	13. Agent occupancy
	14. Staff shrinkage
Primary Service Measures	15. Schedule efficiency
	16. Schedule adherence
Primary Quality Measures	17. Availability
	18. Conversion rate
Primary Efficiency Measures	19. Cost per call

An effective reporting strategy will provide a complete review of the current state of performance in the call center and should provide the means to identify gaps in performance, evaluate strengths and weaknesses, and suggest steps to improve call center operations. The reporting strategy should include what information will be presented, the frequency, the format, and the reporting medium. For example, agents may need to see their performance statistics daily, and those could be provided via the company's intranet or in an e-mail. Other statistics, such as service level, may need to be communicated on a real-time basis to the center as a whole, so reader-boards might be used. Revenue reports might go to senior managers monthly and be delivered via a paper report.

### Reporting Methodologies

The call center is, by its nature, a hub of communications. Customer calls, e-mails, Web chats, faxes, and correspondence are handled there. Even an internal support call center handles interactions with its internal customers in a variety of media. So it is natural that the call center will need to communicate with all of the company's stakeholders. Agents need feedback to understand how well their performance is meeting expectations and what changes need to be made. Senior managers need to know how well the call center is using the company's resources and how well customer needs are being met.

Developing a communications plan involves building a framework that defines the purpose of each report, the recipients, the sources of data, and the metric that is to be used. Different channels of communication must also be

considered to ensure that the information arrives in an efficient and effective manner. Each group of recipients needs a specific level of detail on the measures that apply to them, with the detail or summary level that makes the data useful for decision-making. A variety of charts and graphs can be used for analysis of the data, and choosing the right format will help to make the data as relevant and useful as possible. Whether the goal is to inform agents of their performance so that a continuous improvement plan can be realized, or to deliver updates to senior managers with summary trend analyses, having a clear plan for the reporting and communication effort will maximize the value of the data and minimize redundant or irrelevant reports circulating through the company.

To be effective, the reporting provided by the call center must be relevant, accurate, and timely. If the information is meant to result in a change, it needs to reach the appropriate people in time for that change to be accomplished. For example, if an agent is having a difficult time with a specific call, the supervisor must receive the information quickly in order to assist that agent in completing the call successfully. In the case of data provided on customer product needs or complaints, the information needs to reach the product development team while there is still time to modify the next release of the product.

Trend and summary data, such as reports on key performance indicators for senior management, are likely to be produced less frequently than the more detailed data that is shared among the call center management team on a daily basis. Call center managers are likely to react to information that indicates a problem quickly, while senior managers may be less likely to press for instant changes based on reports they receive.

The level of detail in the reports must also be appropriate for the audience. The agent needs to see details on his or her performance, perhaps even on a single call. But this level of information would be overwhelming for a call center manager who supervises 100 agents. At each ascending level of the hierarchy, the level of detail generally diminishes and is replaced by summary statistics and trend analysis. If these summaries spark interest in more information, the details can be provided.

## **Real-Time Reporting**

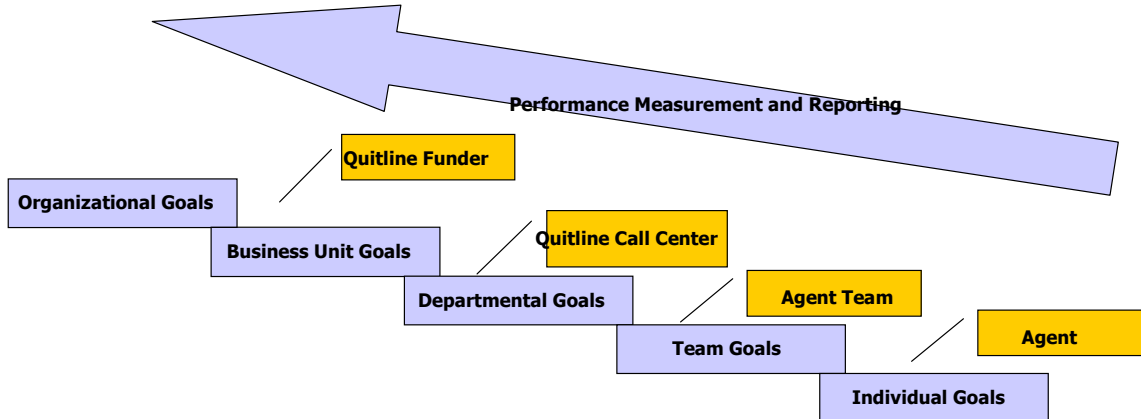
The primary reason to have real-time data is to be able to make a change as quickly as possible. One such change that consumes a great deal of energy in nearly every call center is ensuring that the number of agents available to handle the workload is matched to the actual workload as it arrives. The real-time displays provided by the ACD give supervisors and others in the call center information that can be refreshed as frequently as every few seconds. This data will inform the staff if there are calls in queue, how long they have waited, whether there are agents available, and what work state each agent is in at that moment. If the delay is longer than the center's goal, the supervisors can identify agents who need to be encouraged to pick up calls, or even log in themselves to handle calls and reduce the wait time for customers.

Many call centers use wall-mounted displays or alert boxes on the agent's screen to provide access to these real-time statistics. This allows everyone in the center to see the status of the queues and other important information. This empowers agents to take responsibility for logging in to handle calls when the queue backs up, and allows supervisors to keep an eye on the situation even when away from their desks and real-time monitoring terminals. These displays can also provide real-time information in a text message to handle the calls appropriately. For example, a cellular service provider may have a technical problem in one area and may expect calls from customers regarding dropped calls or other failures. By informing all agents in the center via a text message on the wall display or on the text message area of the agents' desktops, these calls can be handled knowledgeably and quickly.

## Communicating Performance Results

Developing a performance communication plan requires a framework for the plan and a clear understanding of the purposes of the reports. The reporting strategy should align each of the report elements and measurements to the organization’s goals and, ultimately, to its mission and vision statements. The organization’s goals are communicated from the top of the organization with appropriate requirements for each business unit, department, team, and individual. Goals at the call center level, team level, and individual level should be clearly reflected in the key performance indicators of the call center.

The analysis in performance reports typically starts at the smallest unit and rolls up to the top of the organization. Individual performance reports roll up into team goals. Team results roll up into department results for the call center, which combine with other departments to make up business unit results, such as those for the customer care unit or a regional unit of a multisite operation. Ultimately, the business unit goals and results roll up to the total organization. Therefore, the call center’s measurements and reports must align with the goals as they roll up through the organization. This alignment is depicted below.



## Reporting Framework

Reporting and communication should not “just happen” but should follow a plan that addresses what needs to be communicated, to whom, when, and at what level of detail. Each goal that the call center can contribute to should have some reporting elements that identify how well that goal is being met. Developing a reporting framework is a useful process that organizes the effort and identifies each of the elements that must be addressed in the reports. In the example below, a model for a reporting framework is provided to serve as a basic outline to develop the reporting and communications plan.

Report Title:	Purpose	Info Reported	Source	Recipients	Distribution Frequency	Channel Used	Report Owner

Each of the columns is intended to assist the call center manager in developing the plan for the reports and communication processes that need to be accomplished. The explanation of the columns below includes an example using a speed-of-answer goal as an element of ensuring accessibility to customers.

- **Report Title.** This is the name that will be given to the report so that it can be easily identified. There may be a series of reports that are grouped together to convey various elements of the same performance metric. An example might be “Weekly Speed-of-Answer Report,” which could be part of a series of reports that include daily, weekly, monthly trend analysis, and even half-hourly reports that are needed at

different levels of the organization.

- *Purpose.* The reason that the report is provided is the purpose, and this ties back to the organizational goals. For example, the speed-of-answer reports are provided to measure the call center's performance against the goal of providing accessibility for customers or being "easy to reach." Other accessibility reports might include analysis of call attempts turned away after hours, busy signals, and Web site availability percentages.
- *Info Reported.* This column is used to provide the specific data fields that will be included in the report, the calculation if appropriate, and the goals that are being measured. In the case of the speed-of-answer goal, the report might indicate that 70% of calls are being handled within 20 seconds in 75% of the half-hours of the day. The report might illustrate how the data is calculated.
- *Source.* This column provides the source of the data that will support the calculations and data elements. The source will identify the system reports or other places where the raw data that support the calculations in the report are found, such as the ACD Daily Service Level Report. Some reports will require multiple data sources.
- *Recipients.* This column identifies who will receive the report and may include titles and/or specific names. Using names and titles makes the plan document easier to use but requires more upkeep to keep the plan current as personnel change roles in the company. The speed-of-answer report will be broken down into several levels of data, and each will be provided to a different group of recipients. For example, the call center supervisors will need the half-hourly report while the senior managers may prefer the monthly trend analysis.
- *Distribution Frequency.* This column defines how often the report will be generated and distributed to the defined recipients. In some cases, intermediate data will be needed to roll up into the specific report, and that should be clearly defined with a timeframe for when the components are due in the hands of the final report developer to ensure that the composite report is completed on time.
- *Channel Used.* This column defines the way the reports will be distributed. Some may be made available on a company intranet for the recipients to access as desired. Others will be printed and presented, or provided via an e-mail attachment. The speed-of-answer reports that are distributed within the call center are likely to be posted on the wall for all to see, while the monthly reports are more likely to be e-mailed or printed and distributed since some personnel are not in the call center every day.
- *Report Owner.* This column defines who in the organization has responsibility for development and distribution of each report. The speed-of-answer report is likely to be the responsibility of the workforce management team within the call center, but a specific individual should be identified for each report to avoid confusion and missed reports. Once again, job titles and names are helpful so that when a person changes roles, tasks can be identified and assigned.

It is common in existing call centers to find reports that are not used by some or all of the recipients. A report may have been developed to meet a demand from a former manager or to track a situation that was resolved months ago. Therefore, it is a good practice to review the reporting and communication plan at least annually and determine if each report is still relevant and useful to all of the recipients. Cutting down the distribution list may be appropriate if a report cannot be eliminated. Perhaps the data provided is not at the right level of detail for the current environment. A new report may be needed because of a new technology or a change in process or products/services provided. The annual review will help to ensure that the reports serve a defined purpose and are worth the time needed to produce them.

## **Communications Channels**

Part of the communications plan includes determining the best channel to use for the report or communication. Some information is best delivered in writing, and other communications are better provided orally and in person. There are

many options to consider:

- *Face-to-face.* A human-to-human interaction done face-to-face is typically vocal but may be accompanied by a paper document to reinforce and memorialize the vocal statements. Most vocal communication on individual performance should be documented on paper.
- *Paper-based.* This includes any printed or hand-written report including a pre-printed form, graphics, tabular numbers, printouts from systems, and/or text. This is the best medium to use when communicating a large amount of detail, a complex concept, an ongoing analysis that will be amended on a regular basis, or any analysis that requires charts and graphs to be effective.
- *Telephone.* A telephone call may be used to inform another party of a performance result. The telephone communication may be accompanied by a paper document or an e-mail.
- *E-mail.* E-mail is becoming more common and is often used inappropriately when face-to-face communication is required. However, e-mail is a good choice for routine updates and unemotional information. It is best for small amounts of detail at one time rather than large documents.
- *Internet or Intranet.* The Web must also be considered an electronic communications channel that can be an effective or destructive mechanism for disseminating both information and misinformation. In multisite call centers, an intranet site is often used as a central repository for performance data and information that needs to be accessed by personnel at all sites.
- *Real-Time Display.* Another electronic form of communication in the call center is the real-time display that may be on a wall-mounted light board, a TV screen, or displayed at the agents' desktops on the phone or computer. This channel is typically used for information that is only seconds old and is continually updated.
- *Formal Presentation.* Delivery of a formal presentation is generally a combination of a face-to-face communication with written supporting documentation. Graphics, slides, or other charts may also accompany it.
- *Grapevine.* The ever-present grapevine of rumors generally passes information from one person to another without a formal plan. While it is possible to use the grapevine as an effective communication channel, it is generally avoided because of the lack of control over the quality of the information and the people who will receive it.

### **Communications to Agents**

Communication with agents involves not only the information regarding job performance metrics and achievement of goals, but daily operational data and the constant barrage of changes that must be assimilated each day. Ensuring that agents on all shifts, along with those who may be absent on any given day, receive the important data is a challenge that requires a thoughtful plan and consistent execution.

#### *Operational Communications*

One of the most frequent and important communications with agents is the schedule. Each agent wants to receive assignments as early as possible to allow for childcare, appointment, and transportation arrangements. The center may require changes to the schedule because of varying call loads and staff availability, and agents may trade schedules. Keeping the agents and the center informed of all these changes is a challenge. Setting up a process to manage schedule-exception reporting is a key task since there can be hundreds of schedule exceptions a day in a large center.

Another constant flow of information is the change data that agents need to know. This information may be distributed on paper, via e-mail, or even by voice message. The most effective method depends in part on how long the information is valid and whether it is simple to remember and apply. A temporary system failure may be communicated to the agents via a wall-mounted display since it is usually a simple message of limited duration.

### *Performance Communications*

There are many performance measures that apply to the call center as a whole, some that apply to teams, and some that apply specifically to the agents. The measurements that apply to an individual agent include quantitative measures as well as some qualitative measures.

There are some measures over which the agent has little or no control. It is essential to consider that aspect of each measurement so that agents know whether a measure is within their control and how they can affect it. Sharing other measures with the team to ensure broad focus on the bigger issues is useful even though it is not reasonable to hold agents responsible for them. For example, one metric that agents have little control over is the service level. If the agents are adhering to their schedules and available when they are supposed to be, they cannot be responsible for an unusual call volume or an inaccurate workload forecast. The agents need to know how well the center is performing against that goal since it is important to the center overall, but it should not be a metric on the agent's performance expectations.

### **Communications to Teams**

Communications to teams and supervisors generally include summary results for the agent group that is included in the team. The supervisor needs to see the individual results for each member of the group and the group averages to make comparisons. In addition, a report that shows the team's position relative to the overall center goals and to other teams may be useful, especially when some competitive spirit will encourage improved performance.

In general, group summary reports are less likely to create an emotional response than the reports that communicate individual agent performance. Since the individual performance of each person is hidden in the totals for the team, no one is singled out as a great or poor performer. These reports are commonly communicated electronically, posted on an intranet, or printed and posted on the wall of the center. Some centers post the reports with the agents' names and individual data; others use a code so that each agent can find his or her own data and compare it with others', but everyone's privacy is protected.

It is also appropriate to share center-wide information with the supervisors and teams to indicate how well the center is doing in achieving its overall goals. This information might include ASA, abandon percentage, cost/revenue per call, and customer satisfaction survey results. While individual agents should not be held responsible for these goals, each person plays a role in meeting them. Keeping everyone informed about how well the center is meeting its overall goals helps to build the spirit of teamwork that is essential to the call center's success. To the extent that an entire call type or work type is controlled within a single team, it is especially appropriate to provide the summary data on that work to the supervisor for that team.

### **Communications to Management**

As the reporting and communication process moves to the overall call center level, the data that was provided in detail for teams and individuals is summarized one more time. The data may be sorted in a number of ways, including by call or contact type, by shift, by day, by supervisor, and so on. The manager will see the reports sorted with an overall summary for each team or data type and the totals/averages for the entire center. In multisite operations, the director may see each center separately and a system-wide view. At this point, trend analyses with charts are generally useful to give a graphical overview of the data in a quick-to-read format. Trends over a 12-month period are common, but daily data may be needed to ensure that the details are not buried in the averages. If a change has taken place that will affect the statistics (such as implementation of a new technology), the change should be noted on the reports to ensure that its impact can be correlated with the trends.

Reporting accessibility goals, such as call blockage and self-service option availability/usage, is appropriate at the

center level. In addition, speed-of-answer goals, such as service level or ASA, delay percentage, and longest delay before answer or abandon, are appropriate reports on a center-wide basis.

Overall speed of answer, delay experiences, and abandon percentages are typically reported at the center level for each call or work type separately. As more centers take on electronic work, such as e-mails, response time on these transactions will be tracked in much the same manner as the call service levels are today.

The center tracks its overall compliance with the operating budget on a monthly basis at a minimum, and capital budgets are tracked to ensure that the projected return-on-investment results are actually achieved. Many centers track their staff in terms of full-time equivalents because staff is the single biggest cost component for a center. This involves calculating a forecast of workload for several months and analyzing the utilization of full-time, part-time, contract, and outsourced personnel, along with potential overtime. The number of staff on vacation and the overall shrinkage estimates are included in the analysis along with forecasts of training classes and the workload that they may be able to handle.

Self-service utilization is generally tracked at the call center level to determine the trend of IVR and Web usage because these technologies are designed to do some of the agents' work. Correlating the shift in work volumes as these self-service tools are used allows managers to see the impact they have on the average handling time of the calls that agents handle.

### **Communications to Funders**

Some funders may desire all the detailed information that the call center management team uses, while others may wish to see only summary information. If summary charts and graphs are acceptable, these will generally focus on trend analysis. However, the call center manager should be prepared with the detailed data that backs up any graph or any given statistic.

Key performance indicators are often chosen as the report data that is provided to funders. Customized reports, such as "dashboards," can be very helpful for seeing the important elements of the data quickly. Each funder should specify the reports and level of reporting data desired.

## **SECTION 5: CONCLUSION**

Defining, measuring, and reporting critical performance metrics for quitline call centers are essential to a quality framework, as well as to maintaining quitline quality, service, and efficiency. Performance measures allow a call center to track and trend performance; identify, diagnose, and correct call center and individual performance problems; and establish and assign accountability for achieving performance goals.

While quitline service providers likely have established organization-wide performance measurement standards and goals, they must also work together with their funder(s) to agree on the critical metrics for that particular state or provincial quitline, the goal for each metric, how and when measurement results should be reported, and the resolution process when a problem is diagnosed.

"Fundamentals of Call Center Staffing and Technologies," a NAQC technical assistance resource for funders and service providers that complements this paper, outlines the staffing structure of call centers, including steps for forecasting workload, staffing for inbound telephone calls, and performance management. Additionally, it provides an introduction to the standard technology structure of today's modern call center. The NAQC "Call Center Glossary" continues the building of a shared call center language for funders and service providers, and it includes all of the

terms used in this paper.

Many structural and process-related factors influence quality outcomes for quitlines. While it is tempting to focus solely on outcome measures, such as reach, quit rate, or return-on-investment, a balanced quality framework also requires the various metrics measured when a call is answered. These quality measures are often the key to identifying the larger structural issues (funding, for example) or process issues (communication between funder and service provider) that determine whether goals are met or missed. Call center metrics, and good communication about those metrics between funder and service provider, are critical elements to ensuring the delivery of quality quitline services to those trying to quit tobacco use.



## **ACKNOWLEDGEMENTS**

### **Author:**

NAQC would like to acknowledge the lead author of this issue paper, Penny Reynolds. Ms. Reynolds is a founding partner of The Call Center School and has more than 25 years in the call center and telecommunications industry. Ms. Reynolds was responsible for conceptualizing and drafting the original paper and incorporating feedback from NAQC staff, NAQC Advisory Council members, and NAQC members into the final version of the paper.

### **Contributors:**

For managing the feedback and revision process, supporting the author, making important content revisions, NAQC would like to acknowledge Tamatha Thomas-Haase, MPA. For editing of the paper, NAQC would like to acknowledge Julie Jensen. For layout and design of the paper, NAQC would like to acknowledge Natalia Gromov. Linda Bailey, JD, MHS, also contributed important feedback that shaped the scope and content of the paper. NAQC would also like to acknowledge its Advisory Council members for their role in reviewing and approving this Issue Paper, most notably the three members who served as primary reviewers: Christopher Anderson, Mary Anne Bright, RN, MN, and Judy Martin, MS. Mr. Anderson also provided valuable content during the revision process and developed the content for and layout of Appendix A. The feedback from NAQC members during the review and comment phases of the process was also invaluable. All member feedback ensured the paper's relevancy to the field.

### **Funders:**

NAQC's Quality Improvement Initiative is made possible with funds from The Centers for Disease Control and Prevention and The American Cancer Society. The contents of this publication are under the editorial control of NAQC and do not necessarily represent the official views of the funding organizations.

### **Recommended Citation:**

NAQC. (2010). *Call Center Metrics: Best Practices in Performance Measurement and Management to Maximize Quitline Efficiency and Quality*. Quality Improvement Initiative (Reynolds, P.). Phoenix, AZ.

## REFERENCES

1. Alreck, P. & Settle, R. (1995). *The survey research handbook*. New York, NY: McGraw Hill.
2. Barlow, J. & Moller, C. (1996). *A complaint is a gift: using customer feedback as a strategic tool*. San Francisco, CA: Berrett-Koehler.
3. Klenke, M. (2004). *Business school essentials for call center leaders*. Nashville, TN: The Call Center School Press.
4. Reynolds, P. (2003). *Call center staffing: the complete, practical guide to workforce management*. Nashville, TN: The Call Center School Press.
5. Van Bennekom, F.C. (2002). *Customer surveying: a guidebook for service managers*. Bolton, MA: Customer Service Press.