Office of Developmental Programs

Quality Management Certification Handbook

Message from ODP's Quality Management Division Director

Welcome to ODP's Quality Management Certification Handbook, a tool developed to help you enhance and retain your quality management knowledge and skills, particularly as you apply them to your work within the ODP service system. Quality management, or QM, is the active oversight of all quality assurance (QA) and quality improvement (QI) activities required to achieve and maintain a desired level of excellence. Our hope is that the information provided to you through the pre-requisite modules, virtual class, and this handbook will equip you for tackling all your QA and QI challenges.

ODP's services and supports are funded through Home and Community Based Services (HCBS) waivers provided by the Centers for Medicare and Medicaid Services (CMS). The CMS quality vision, commonly referred to as "The Triple Aim," includes three overarching goals: healthier people, smarter spending, and better services. CMS expectations for us, related to this quality vision are that the State of Pennsylvania and providers of waiver services and supports are fulfilling obligations as set forth in the HCBS program, in a fiscally responsible way; recipients of services and supports are better off; and services and supports provided are beneficial and aim to achieve good outcomes. ODP embraces these expectations, as they are not only important because CMS expects them, but more importantly, they are the right thing to do.

An organization's culture is its shared ways of thinking, feeling, and behaving, and ODP continuously strives to build and sustain a culture of quality. Key characteristics of a culture of quality include having a desire to understand what contributes to inadequate service quality; recognizing that mistakes occur and that blaming others isn't useful; having a shared understanding of trust and learning, along with shared responsibility for identifying and acting on opportunities for improvement; a deep commitment to partnership among all agencies and stakeholders; and reciprocal feedback loops between agencies that promote the pursuit of excellence. QM certification is one of the important tools in the toolbox that we use towards pursuit of this purpose.

Tara Giberga, MBA, CPHQ - ODP's Quality Management Division Director

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A. QM CERTIFICATION PROGRAM DETAILS

ODP's QM Certification program goals are to build system capacity and ensure success in applying QM principles and practices; enhance the QM knowledge and skills of ODP staff and stakeholders across the service delivery system; and to grow a culture of quality. Ultimately, providing opportunities to join together to become ODP QM Certified provides our system with increased expertise and capacity to move forward, in partnership and collaboration, as we grow our culture of quality together, with a renewed emphasis on person-centeredness and achievement of positive outcomes for those served by the ODP system.

The QM Certification program design considers the needs of beginners, as well as those with QM experience. Completion of prerequisite modules is required prior to taking part in a virtual 2-day class.

QM certified staff have learned how to implement promising and best practices and ensure program compliance with regulations, while in pursuit of improving person-centered outcomes. Additionally, entities with a QM certified person can more confidently move towards achieving continuous quality improvement across all service delivery functions.

Prerequisites

❖ Three modules, 101 through 103, must be completed prior to attending the virtual class.
❖ Registrants for the virtual class must submit an attestation that confirms completion of the modules.

*Note that the pre-requisite modules are designed to ensure that you have the knowledge you need to be successful in the virtual class. Knowledge checks have also been provided in this handbook, at the conclusion of each of the modules, to assist you in ensuring that you are understanding and retaining what you need for success.

Virtual Class

❖ Class size is limited, and registration is on a first come, first served basis.

❖ Classes are held over 2 consecutive days, for approximately 5 hours each day.

❖ Activities include developing a QM and Action plan, applying the Plan, Do, Check, Act (PDCA) cycle, using a fishbone diagram, organizing and analyzing data to monitor progress, writing QM reports, and much more.

❖ A post-test, with a passing score of at least 84%, is required in order to attain ODP QM Certification status.

❖ Class time is spent using breakouts, hands-on activities, and group discussions to prepare participants to immediately implement QM upon returning to the office.

Visit MyODP for more information and/or to register.
Path: Training >> Quality Management >> QM Certification Program

B. QUALITY PIONEERS

The concept of quality within organizations has significantly evolved over time. During the early 20th century, when industrial manufacturing companies became major contributors to the nation's economy, quality issues within the workplace focused solely on a series of inspections to decide whether a worker's job or a product met the requirements and was therefore acceptable. This practice was not done in a systemic way but worked well when the volume of production was reasonably low. As industrial manufacturing expanded rapidly and workplace operations became more complex, the need for more effective quality practices became apparent.

In the 1920s, inspections still played an important role within industrial settings but were no longer seen as the answer to all quality problems. Out of the need to establish more effective operational practices, some quality concepts began to emerge that called for a major philosophical change. Efforts were not directed at finding and fixing problems in products through end-point inspection but at finding and fixing problems in work processes.

Walter Shewhart

One pioneer instrumental in promoting key change in quality and performance management was Walter Shewhart, an American statistician at Bell Telephone Laboratories, who in the 1920s, developed a cyclical quality control method consisting of 4 continuous steps—**Plan, Do, Check, Act (PDCA)**. This methodology is still used today by many organizations to analyze different aspects of system performance.

When reviewing business processes in the context of this continuous feedback loop, managers can identify and change parts of the process that need improvement. Just as a circle has no end, the PDCA cycle should be repeated again and again for continuous improvement.

W. Edwards Deming

The introduction of *Continuous Quality Improvement* is generally associated with W. Edwards Deming, an American expert in quality control. He was a statistician with doctorates in math and physics and ultimately became known as the "philosopher of quality" and the *learning organization*, as well as the "father of the third wave of the industrial revolution."

In the 1950s, after his ideas about quality control were rejected by post-WWII America, Deming assisted a much more receptive Japan to apply Walter Shewhart's concept of cyclical quality control to manufacturing and all other business functions, such as design, marketing, distribution, sales and service delivery. It wasn't until 1981 that Ford Motor Company became one of the first American corporations to seek help from Deming. To Ford's surprise, Deming talked a lot about management, not quality. He questioned the company's culture, the way its managers operated, and he told them management actions were responsible for 85% of all problems. This premise came to be known as Deming's **85/15 theory**, which is the concept that 85% of problems are process or system related, and 15% are traceable to individuals. To put it another way: 85% of an employee's effectiveness is determined by the system they work in, and only 15% is determined by their own skill. This theory is still utilized today.

Generally, Deming's *management philosophy*, captured in his famous "**14 Points**," stresses the importance of striving for constant improvement by infusing positive leadership and management principles into the organization and recognizing that employees are an organization's most valuable assets. By promoting creative thinking, staff development, education and teamwork, an organization can empower its employees to feel more secure in their abilities and to work more effectively. They must be lead, not pushed, by management. Quality improvement is achieved when empowered employees focus on improving their own job performance, and management focus is on problems related to processes or systems, "the 85%."

Deming proposed replacing traditional management techniques with a statistically controlled management process to determine when, and when not, to intervene in a process. To address

problems related to processes and systems, both Shewhart and Deming championed the use of statistical process control (SPC) charts, which are tools that allow management to determine a range of random variation that always occurs in a process, and then discern the causes of these variations to assess what to take action on. There are 2 types of causes in variations – "common cause" (rooted in basic processes and systems) and "special cause" (stemming from isolated occurrences outside the system).

Deming's "14 Points" management philosophy prepares an organization for the future, while also encouraging increased productivity in the present. These "14 Points" include:

1. Create consistency of purpose for improving products and services.
2. Adopt the new philosophy.
3. Cease dependence on inspection to achieve quality.
4. End the practice of awarding business on price alone; instead, minimize total cost by working with a single supplier.
5. Improve constantly and forever every process for planning, production and service.
6. Institute training on the job.
7. Adopt and institute leadership.
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate slogans, exhortations and targets for the workforce.
11. Eliminate numerical quotas for the workforce and numerical goals for management.
12. Remove barriers that rob people of pride of workmanship and eliminate the annual rating or merit system.
13. Institute a vigorous program of education and self-improvement for everyone.
14. Put everybody in the company to work accomplishing the transformation.

These key concepts and more information can be found at deming.org/explore/fourteen-points.

Joseph Juran

Joseph Juran, with a background in law and industrial engineering, was another famous quality pioneer whose contributions to the field included concepts such as "**fitness for use,**" the **80/20 rule,** and his management theory known as the "**Juran Quality Trilogy**." These quality concepts, like many others, grew out of the manufacturing industry, however; they are still important to consider when assessing quality problems you may encounter in your ODP-related role.

Juran defined the quality of a product (or service) as "**fitness for use**," which he further described as an essential requirement of the product to meet the needs of members of society who will be using it. "Fitness for use" represents freedom from product deficiencies that avoid customer dissatisfaction.

The **80/20 rule,** also known as the **Pareto Principle,** states that 80% of outcomes (or outputs) result from 20% of all causes (or inputs) for any given event. In the business world, a goal of the 80/20 rule is to identify inputs that are potentially the most productive and make them the priority.

Perhaps most famously and relevant to the work of ODP, Juran is widely credited for expanding the human dimension to quality approaches. His management theory emphasized a "project approach" to quality management, the key role of top organizational leadership, the importance of leaning on each other to succeed (management as a whole), and the significant impact of human factors on quality, such as *resistance to change*, which he considered to be the *root cause of quality issues*.

In the 1950s, Juran was invited to Japan, where he initiated quality management courses and worked with top and middle management businessmen. He referred to the means for managing quality that he taught as the **"Juran Quality Trilogy,"** which included three processes:

> <u>**Quality Planning**</u> is the design process of the quality trilogy. It's where you would: identify and track your 'customers' of the process; identify, measure, and prioritize their needs and expectations; identify process issues that are critical to outcomes; and where you would set your improvement goals.

Quality Control is the process of the quality trilogy where ongoing inspections of the process occur to ensure that its under control. It's where you would: measure your current performance and its variance from your expected or intended performance; analyze and interpret the identified variability using data to manage key processes, evaluate effectiveness, and facilitate further planning and improvements; and measure the extent to which an organization and individuals achieve and maintain desired outcomes.

Quality Improvement is the process of the quality trilogy where proactive refinement of processes to improve on those processes occurs. It's where you would: use collaborative efforts and teams to study and improve existing processes, at all levels of the organization; systemically implement solutions to chronic problems; and use a scientific problem-solving method, such as PDCA, to improve process performance and achieve your stated goals.

Juran's management theory and 'quality trilogy' represented a significant change in thinking and was fundamental in expanding quality management principles beyond the manufacturing floor to include principles that could also be applied to service-related processes.

Avedis Donabedian

In the 1950s, Dr. Avedis Donabedian, a physician and renowned author, was instrumental in changing the thinking about quality in modern health care systems. His model of evaluation was born out of his belief that social response to health problems is not a collection of unrelated events, but rather a complex process that follows general related principles.

More specifically, and using ODP-related examples, that…

Structure (the arrangement of parts of a care/support system, for example: entities, policies, resources and provider qualifications)

Leads to....

Process (leadership/management, procedures/practices, sequence of steps, and interactions/communications for providing/delivering care/support, for example: activities performed in a system to support individuals served by that system)

Which leads to....

Outcomes (adverse or beneficial results of care/support, for example: level of engagement, functionality, experiential, medical/clinical).

This model of evaluation provides a framework for visualizing connections between structures we establish, actions we take, and the outcomes we achieve.

C. CMS & ODP REQUIREMENTS

States must apply to the Centers for Medicare and Medicaid Services (CMS) and be approved in order to offer a Home & Community Based Services (HCBS) waiver. In the application, the state specifies how the waiver will operate and how the state plans to provide oversight via assurance areas.

CMS Waiver Quality Assurance Areas

To be approved, all HCBS waiver applications must make certain assurances concerning the operation of the waiver. In addition, the Quality Improvement Strategy contained throughout the application, and in Appendix H of the waivers, describes how the state will monitor performance in meeting the assurances, on a continuing basis, during the period that the waiver is in effect.

Key assurance areas include:

1. **Level of Care (LOC)**: Participants enrolled in the HCBS waiver meet level of care criteria consistent with those residing in institutions.
2. **Service Plan (SP)**: A person's needs and preferences are assessed and reflected in a person-centered service plan.
3. **Qualified Providers (QP)**: Agencies and workers providing services are qualified to do so.
4. **Health and Welfare (HW)**: Participants are protected from abuse, neglect and exploitation and get help when needed.
5. **Financial Accountability (FA)**: State Medicaid Agency pays only for services that are approved and provided, the cost of which does not exceed the cost of a nursing facility or institutional care on a per person or aggregate basis (as determined by the state).
6. **Administrative Authority (AA)**: State Medicaid Agency is fully accountable for HCBS waiver design, operations and performance.

It's important for you to know about the assurances because they have an impact on your work each and every day. Much of what you do ties back to the assurances. For quality managers, this applies to how and why you are asked to document what you do.

Additionally, to be approved, all waiver applications must include *specific operational details related to quality management and improvement*. **These include:**

- **Performance Measures:** Standards a state will use to evaluate how well the HCBS waiver is meeting each of the federal assurances.
- **Discovery Methods:** Data a state collects to measure how well it is meeting each performance measure; the method and frequency of data collection and analysis; and the person or entity responsible for using the data for decision-making.
- **Remediation:** How a state will take action when individual problems are found.
- **System Improvement:** Method to prevent similar problems from happening again or to make the HCBS waiver more effective and efficient.

HCBS Quality Framework

ODP applies the **Home and Community Based Services (HCBS) Quality Framework**, which was developed by CMS in partnership with the National Associations of State Directors of Developmental Disabilities Services, State Units on Aging, and State Medicaid Directors. It is meant to provide *a common frame of reference* in support of productive dialogue among all parties who have a stake in the quality of community services and supports for older persons and individuals with disabilities.

This Quality Framework establishes structure by focusing attention on <u>participant-centered desired outcomes</u> across 7 Focus Areas including:

1. **Participant Access:** Individuals have access to home and community-based services and supports in their communities.

2. **Participant-Centered Service Planning and Delivery:** Services and supports are planned and effectively implemented in accordance with each participant's unique needs, expressed preferences and decisions concerning his/her life in the community.

3. **Provider Capacity and Capabilities:** There are sufficient HCBS providers and they possess and demonstrate the capability to effectively serve participants.

4. **Participant Safeguards:** Participants are safe and secure in their homes and communities, taking into account their informed and expressed choices.

5. **Participant Rights and Responsibilities:** Participants receive support to exercise their rights and in accepting personal responsibilities.

6. **Participant Outcomes and Satisfaction:** Participants are satisfied with their services and achieve desired outcomes.

7. **System Performance:** The system supports participants efficiently and effectively and constantly strives to improve quality.

Within the HCBS Quality Framework, each of the seven focus areas is broken down further into specific subareas with associated desired outcomes.

Specific subareas within the Participant Safeguards Focus Area of the HCBS Quality Framework include:

a. Risk and Safety Planning

b. Critical Incident Management

c. Housing and Environment

d. Restrictive Interventions

e. Medication Management

f. Natural Disasters and other Public Emergencies

Each subarea is accompanied by a targeted, desired, and measurable quality outcome. For example, in the area of Critical Incident Management, quality happens when "There are systemic safeguards in place to protect participants from critical incidents and other life-endangering situations."
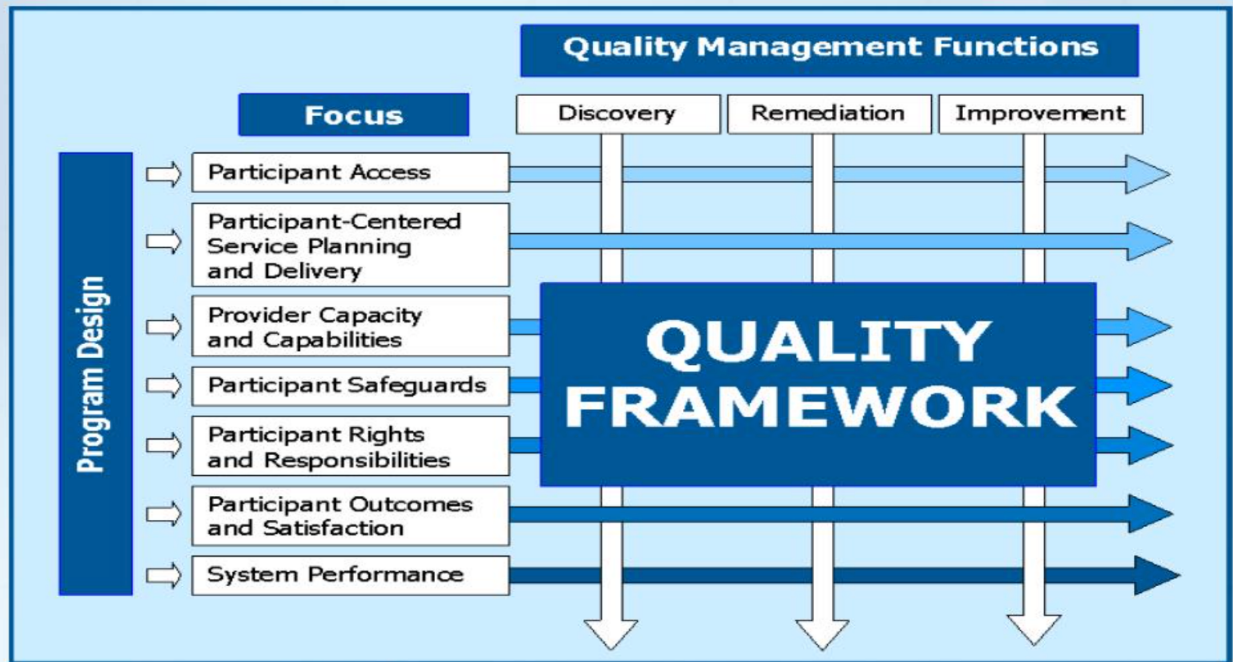
ODP QM Requirements

In addition to the CMS requirements, **PA's 6100 regulations, relating to *Services for Individuals with an Intellectual Disability or Autism,*** require all ODP entities to develop a QM Plan and associated Action Plan. QM plans must be revised/updated at least every 3 years.

Although this *minimum* requirement exists, ODP's QM Division strongly recommends that QM Plans are reviewed and updated annually, for example at the end/beginning of each fiscal year, and that QM Action Plans, considered to be "living documents" when used correctly, are updated throughout the year. These best practices are encouraged for truly advancing quality improvement within your organization. And when each entity does this, quality improvement is advanced throughout the system as a whole, and provides improved, quality outcomes for those we serve!

ODP delegates responsibilities more locally throughout the state to Administrative Entities (AEs) through an Operating Agreement. Amongst other content, that agreement identifies the AE's

responsibilities related to QM. Specifically, all AEs are required to develop a written QM Plan and associated Action Plan and to appoint a QM point person. It is recommended that this designated QM point person become ODP QM certified, so that they are fully equipped for the role.

The actual language from the AE operating agreement is as follows: "The AE shall have a written QM Plan that implements the Department's QM Strategy related to the methodology, accountability, responsibility and ongoing review of QM activities. The QM Plan shall include the Everyday Lives recommendations and focus on published ODP priorities. The AE shall review and analyze data and performance over time, direction from the Department regarding priorities and any feedback received from the Department to improve internal QM processes and build or refine objectives for the QM Plan. The AE shall maintain documentation of the process used to select these opportunities for improvement. The AE shall provide evidence of implementation of its QM Plan."

D. ODP'S QM STRATEGY

Now let's talk about ODP's QM Strategy and how it relates to Dr. Donabedian's Model of Evaluation, that: <u>Structure</u> leads to <u>Process</u>, which leads to <u>Outcomes</u>. It's through establishing structures and carrying out identified processes that we make the outcomes we desire come to be.

Quality Assurance vs. Quality Improvement

But, before we do that, it's important to note that quality assurance, quality improvement, and QM are not the same, so we must be clear in our terminology.

Quality Assurance (QA) measures quality as compliance/conformance with standards/rules/ expectations, as determined by regulators or payors. QA often uses binary or quantitative data, is fact-based (*quality by fact* - indisputable, can be "proven"), and is gathered through a retrospective (looking back) approach.

Quality Improvement (QI) is complementary to QA activities, uses a systematic, prospective, or proactive approach, infuses principles of continuous learning (think Shewhart's PDCA cycle) in activities, and includes qualitative measures that align with subjective customer expectations (think Juran's fitness for use). QI data is often variable-scaled or incremental (e.g., Likert scale) and oftentimes links *quality by perception* (opinion/impression) with fact – how much, far, long.

It's important to remember that QA, or compliance with minimum standards, is only the quality floor, not the ceiling. To go beyond, for systemic improvement, we also need QI.

On the continuum from QA to QI, ODP uses the:

- ❖ CMS Waiver Assurances to guide fundamental **QA activities** and
- ❖ CMS HCBS Quality Framework to grow into **QI activities**

Both QA & QI are important, as together: QA + QI = QM!

ODP's QM Strategy Bulletin

Building upon the CMS waiver requirements and the HCBS Quality Framework, *organizations must develop and implement a comprehensive plan outlining their QM strategy*, in order to continuously strive to improve quality. ODP developed its QM Strategy and disseminated it through a formal Bulletin (00-17-01) for the purpose of communicating that strategy and its goals of:

- ❖ Offering the highest quality services that promote choice and control in individuals' everyday lives
- ❖ Safeguarding the health and safety of individuals receiving services
- ❖ Implementing promising and best practices
- ❖ Ensuring program compliance with regulations

ODP's QM Strategy is founded on the mission, vision, and values of ODP and establishes standardized structures and processes for implementing and maintaining the strategy in all ODP programs. It is a comprehensive approach that includes quality planning, quality assurance, and quality improvement.

The QM Strategy Bulletin lays a solid foundation, and provides a road map of sorts, for system QM. It incorporates elements for everyone involved in helping to achieve ODP's mission and vision and offers what ODP staff and stakeholders need to know and understand, to appropriately take action, and effectively support system success.

These elements include:

- ❖ How ODP defines its quality culture and framework
- ❖ Principles and practices that guide implementation of the QM strategy
- ❖ QM roles and responsibilities

Lastly, ODP's QM Strategy involves a *planned, systematic, and organization-wide approach to data collection and analysis, performance measurement, and continuous improvement.* Quality is built into the processes of daily work, and has four interrelated aspects:

- ❖ Systemically collecting, analyzing, and using data to make management decisions
- ❖ Complying with regulations and ODP policy
- ❖ Designing and implementing initiatives
- ❖ Monitoring results for sustainability or need for improvement

ODP uses the Plan-Do-Check-Act (PDCA) Model to implement system improvement and you will find references to PDCA throughout this handbook.

See Appendix A for the ODP QM Strategy Bulletin.

ODP's Mission, Vision & Values

ODP's mission...

> *"...is to support Pennsylvanians with developmental disabilities (and/or Autism) to achieve greater independence, choice and opportunity in their lives."*

It was developed with stakeholder input, is published with every communication we release, and it is aligned with the definition of quality provided by individuals and families served by ODP.

Successful QM in any organization starts with the entity's Mission and Vision, as they are central to helping organizations and their stakeholders remain focused on what they are striving to achieve. These guiding messages should be developed with stakeholder input and communicated frequently using as many approaches as possible to keep everyone on track. QM is essential to accomplishing and maintaining the level of excellence outlined in an organization's Mission and Vision statements.

ODP's vision...

> *"...is to continuously improve an effective system of accessible services and supports that are flexible, innovative and person-centered."*

It was also developed with stakeholder input.

ODP's values...

ODP asked individuals and families what satisfaction, or quality, means to them and the response was: having *Everyday Lives.* More specifically, this means having the same experiences and opportunities as everyone else does.

Each of us plays an important role in designing and delivering quality supports and services to individuals and their families. By striving to achieve our optimal performance in the areas for which we

have responsibility—at each level in the organization—we believe the end result will be individuals and families living the *everyday lives* that they want to live. ODP and its stakeholders, including individuals and families being served by ODP, developed and disseminated a document describing our commitment to *Everyday Lives: Values in Action.* This commitment is founded on the two value statements below:

- ❖ "We value what is important to people with disabilities and their families, who are striving for an everyday life."
- ❖ "People with disabilities have a right to an everyday life; a life that is no different than that of all other citizens."

For people with disabilities, "An everyday life is about opportunities, relationships, rights, and responsibilities. It is about being a member of the community, having a valued role, making a contribution to society, and having one's rights as a citizen fully respected. It is a vision that we should all be working toward together. This continues to be the truest statement on which we can build our work." (*Everyday Lives: Values in Action*, p. 6)

Everyday Lives (EDL) Values in Action: My Life, My Way is a statement of the values that people with disabilities consider important, created by people with disabilities.

In the EDL value statements for individuals, attached as an appendix to this handbook, you will see that the first part of each value statement explains what the value means to people with disabilities and the second part describes the kind of support individuals with disabilities need from family, supporters and the community to realize these values in their everyday lives. Values statements in the EDL publication includes: Control, Choice, Freedom, Stability, Health and Safety, Connectedness, Responsibility, Communication, Success, Employment/Meaningful Contribution, Individuality, Relationships, Partnership, Quality, and Advocacy.

See Appendix B for the value statements important to individuals.

Everyday Lives (EDL) Values in Action: What Families Value is a statement of values, created by families, that describes what is important to families who want an everyday life for their family member. Families embrace and envision person-centered, family-supported, values-based, everyday lives for their family members, regardless of changes in government administrations, fiscal resources, and unforeseeable influences. They desire that these values are adopted and embedded in ODP's policy and practice across the service system. These values that families value, also included in the EDL publication, are: The Unique Role of Family, Supporting Families Throughout the Lifespan, Knowledge and Resources, Mentoring, Communication, Respect and Trust, Choice and Control, Health and Safety, Simplicity and Flexibility, Quality and Stability, Collaboration, and Opportunity for Innovation. This list does not include all values addressed in the EDL publication, but you get the idea.

See Appendix C for the value statements important to families.

Take some time to review and consider the similarities across each of these sets of values created by individuals and their families. If we all consistently consider the question, "Are we adhering to the values?" we can bring about meaningful and enduring systemic changes towards the realization of these values.

In 1991, ODP began asking individuals and families what satisfaction, or quality, means to them. One important result of these conversations was the development and dissemination of the original *Everyday Lives* (EDL) document, which promoted the concept of self-determination for people with disabilities. The principles within this document have continued to guide ODP and the service system ever since.

Role of Stakeholders

An important part of the structure of promoting quality across the ODP service system is the people who carry out the QM roles and responsibilities. Ultimate responsibility for the ODP QM strategy rests with the Deputy Secretary, who delegates responsibility to others on the executive leadership team. Statewide and local quality oversight groups, along with many others within ODP, carry out QM/QI

functions. Carrying out the QM strategy could not be accomplished without the input and collaboration of our many partners including:

- ❖ Self-advocates
- ❖ Family members
- ❖ ISAC (Quality Council)
- ❖ Executive leadership
- ❖ Central Administration staff
- ❖ QM Division staff
- ❖ Regional office staff
- ❖ Regional quality teams
- ❖ State Center staff
- ❖ AEs/Counties
- ❖ Waiver and non-waiver providers
- ❖ Supports Coordination Organizations (SCOs)

Each layer of ODP's QM Structure is responsible to carry out QM activities considering its major functions and contributions to the effectiveness of the system. These activities are outlined in ODP's QM Strategy Bulletin and include:

- ✓ Ensuring alignment with ODP's mission, vision, values, quality framework and priorities
- ✓ Identifying persons responsible to carry out the QM function
- ✓ Fostering development of an inventory of performance measures
- ✓ Based on review of performance, establishing quality improvement priorities and QM Plans, and tracking/evaluating results
- ✓ Collaborating and communicating internally and with system partners to improve quality

This is not a complete list, as ODP's QM stakeholders are always actively involved in many QM activities and initiatives.

Information Sharing & Advisory Committee (ISAC)

In November 2014, the Information Sharing and Advisory Committee (ISAC) was formed to serve as ODP's stakeholder quality council with the purpose of discussing policies and practices and making recommendations. At that time, more than 265 stakeholders conducted research and evaluated best practices to prioritize the most important steps for ODP to take to improve system delivery. The ISAC went on to create a detailed series of recommendations, strategies, and performance measures to guide ODP and gauge progress in achieving the goals published in the 2016 edition of *Everyday Lives: Values in Action*. These strategies and recommendations developed by the ISAC continue to serve as a guide for everyone engaged in developing, providing, and advocating for services in the ODP system today.

The ISAC recommendations are built on the values, goals, expectations, and aspirations of people with disabilities and their families. Detailed descriptions of each recommendation, along with strategies the ISAC agreed to work together to implement, as well as performance measures to monitor performance, are contained in a companion document called *Everyday Lives Recommendations, Strategies, and Performance Measures*. Annually, ODP produces and distributes a report to all ODP stakeholders detailing progress made toward achieving each recommendation.

The 14 ISAC recommendations are designed to put the *Everyday Lives* values into action through the collaborative effort of ODP and stakeholders — individuals, families, supports coordinators, providers and provider associations, administrative entities/counties, advocacy organizations, and partners in state government — working together.

The 14 ISAC recommendations are:

1. Assure Effective Communication
2. Promote Self-Direction, Choice and Control
3. Increase Employment
4. Support Families throughout the Lifespan
5. Promote Health, Wellness, and Safety
6. Support People with Complex Needs
7. Develop and Support Qualified Staff
8. Simplify the System
9. Improve Quality
10. Expand Options for Community Living
11. Increase Community Participation
12. Provide Community Services to Everyone
13. Evaluate Future Innovations Based on Everyday Lives Principles
14. Promote Racial Equity

As you can see, each recommendation is designed to improve opportunities for people with intellectual disabilities and Autism to live full, everyday lives. The ISAC is a standing committee and is flexible and responsive to prominent needs and issues as they arise. For example, Recommendation #14 was added in 2020 in response to an emerging focus on racial equity.

Quality Assessment & Improvement (QA&I) Process

In 2017, ODP introduced a new approach to conducting oversight and monitoring statewide: the QA&I process. This process is designed to conduct a quality review of all AEs, SCOs and providers, via a 3-year cycle. This integrated approach, which includes individual interviews, self-assessments and full reviews, completed onsite and by desk review, was designed to be comprehensive, standardized and measurable and is intended to:

❖ Follow an individual's experience throughout the system,

❖ Measure progress toward implementing ODP's *Everyday Lives: Values in Action,*

❖ Gather timely and useable data to manage system performance, and

❖ Use data to manage the service delivery system with a continuous quality improvement approach.

To support achievement of ODP goals, QA&I process design includes:

❖ Conducting individual interviews to evaluate experiences related to identified desired outcomes, and

❖ Incorporates review tool questions to:
  - ✓ Evaluate progress related to ISAC Recommendations
  - ✓ Evaluate success of entities in carrying out established process steps that support achievement of peoples' desired outcomes through the use of entity specific (AE, SCO, and provider) questions
  - ✓ Inform CMS Waiver performance measures (5 of 6 assurance areas) including: Level of Care, Service Plans, Qualified Providers, Health and Welfare (Safety), and Administrative Authority

As part of the QA&I process, AEs, SCOs and Providers are expected to conduct a self-assessment of their own performance annually, using a sample of individuals. The focus of the self- assessment is on the provision of services/supports to individuals, based on key quality metrics and implementation of *Everyday Lives: Values in Action*. The self-assessment tool mirrors the QA&I tool so that, if used as intended and to accurately assess performance, can truly inform the entity's understanding of its progress towards achieving the goals of ODP and thus, the individuals and families that it serves. Additionally, if an entity chooses to accurately assess its performance, the information can then be used to inform quality improvement activities.

Visit MyODP for more information.
Path: Resources >> Quality Management >> QA&I Process

Independent Monitoring for Quality (IM4Q)

A discussion surrounding ODP's QM Strategy would not be complete without also mentioning the IM4Q survey process. In any industry, it is the people in the community who use the product/service that ultimately define what quality means to them, related to that product/service. So, to understand how satisfied people are with their lives, relative to the ODP service system—which provides insight into how they define quality—we ask them, using the IM4Q survey process, among other ways.

The Institute on Disabilities at Temple University first piloted the IM4Q survey process in 1999-2000 as an information-gathering method used to improve the lives of individuals with an intellectual or developmental disability. At the request of ODP, county MH/ID programs select local IM4Q programs to conduct annual surveys by assigned interview teams—to monitor the satisfaction and outcomes of a random sample of individuals receiving services statewide. The collected data is sent to the Institute on Disabilities for analysis and creation/distribution of annual reports.

Here's how the IM4Q survey process works:

- ❖ Individuals who are receiving services are asked if an IM4Q team can interview them. The interview process is *voluntary.*
- ❖ The interview team is *mobile* and can meet the individual where he or she feels most comfortable: at home or in a day program, for example.
- ❖ The team, typically 2-3 people, includes *at least one member who is either an individual with a disability, or a family member of an individual with a disability*.
- ❖ The team is *independent*, which means they are not from ODP, a county program, or the individual's provider.

IM4Q surveys are completed based on responses of the individual receiving services/supports, or by a family member, friend or staff person. Survey topical areas include: Satisfaction, Dignity, Respect & Rights, Choice & Control, Employment, Self-Directed supports, Relationships, and Inclusion. During the survey process, if a concern or "consideration" about the person is identified, and the person provides

consent to share the "consideration," the survey team will provide the information to the county program for appropriate follow-up, often referred to as "closing the loop."

The survey data collected is then anonymously aggregated and shared in data reports used by ODP and its stakeholders for continuous quality improvement (CQI) activities. An IM4Q Steering Committee of ODP stakeholders identifies system improvement recommendations for action and submits them to ODP's ISAC. In collaboration with ISAC, ODP prioritizes opportunities for system improvements, and communicates these priorities to the field.

E. ODP's USE OF QM MODELS

DDRI Model

Within the HCBS Framework, covered earlier in Section D, CMS describes quality management functions as a continuous cycle of Design, Discovery, Remediation and Improvement. This cycle, referred to as the DDRI Model, describes the steps ODP takes to achieve compliance in each of its program areas. Let's take a closer look at each function.
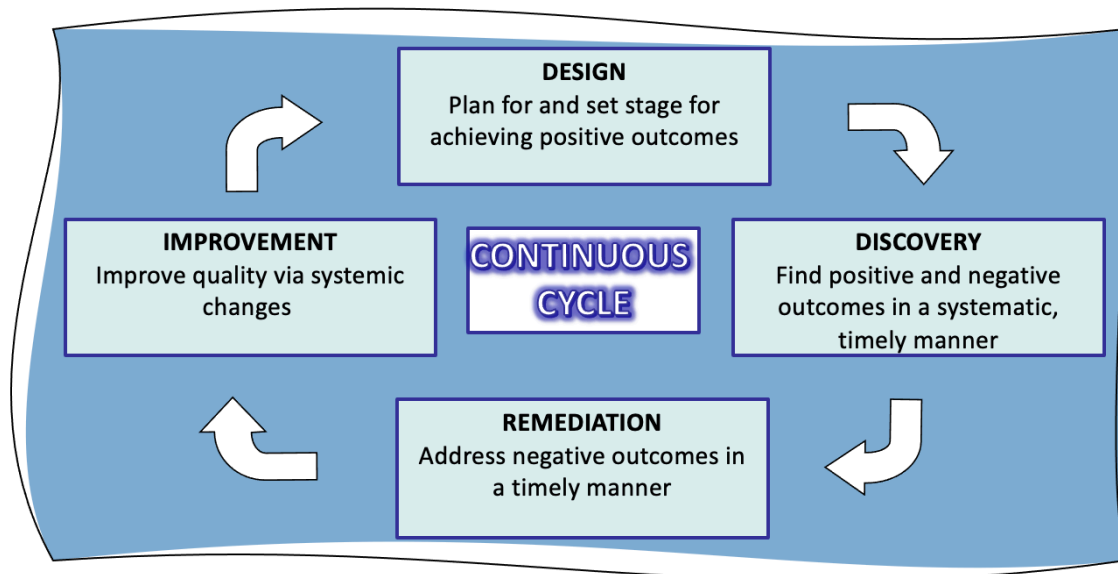
DESIGN refers to a state's plan for how it will monitor a waiver program and make improvements when systemic problems are detected. States must describe this plan in their waiver application and the plan must be organized around the CMS assurances and sub-assurances.

A state is required to describe in their application:

- ✓ How it will "discover" when assurances have not been met,
- ✓ Its plan for monitoring whether problems it discovers are fixed or "remediated," and
- ✓ How its system will be engaged in "improvement" activities when systemic problems are discovered.

This phase of the DDRI model also involves defining performance measures and sampling methodologies that the state will use to assess quality and compliance; actually designing the discovery, remediation, and improvement processes; identifying priorities for intervention; and developing proactive mechanisms for avoiding quality problems. And of course, implementation of the plan.

DISCOVERY refers to a state's monitoring processes used for timely detection of deviations from program design. This monitoring process, enables a state to assess:

- ✓ When program processes are not being followed, and
- ✓ When, and to what extent, the CMS assurances (and/or sub-assurances) are not being met.

Discovery activities are a means for identifying problems with performance so that they can be addressed. This phase includes data collection, analysis of findings, and reporting of findings by process owners and internal subject matter experts (SMEs). Analysis of performance on established performance measures and other objective data can provide indications as to whether the program is working as intended to achieve compliance with CMS performance measures, as well as additional desired person-centered outcomes for individuals and families, such as choice and control, employment, and community participation. By collecting data from various sources and studying

results over time, we can determine how well we did and where improvement efforts need to be focused.

ODP "discovers" or collects its data in a variety of ways. Primary data sources used to assess and guide quality improvement activities to ensure we are meeting CMS requirements, Pennsylvania regulations, and ODP's standards, policies, and procedures are:

- ❖ **QA&I** Process (described in Section D)
- ❖ **IM4Q** Surveys (described in Section D)
- ❖ **National Core Indicators (NCI)** - A subset of data gathered through IM4Q is submitted to NCI, a national project that compares experiences of individuals and their families across states.
- ❖ **Provider Reimbursement and Operations Management Information System, (PROMISe™)** - A system that processes claims and manages financial information activities for ODP's Waivers.
- ❖ **Home and Community Services Information System (HCSIS)** - A web-based application that enables users to enter/retrieve demographic and service planning data, information, and reports on participants enrolled in programs.
- ❖ **Enterprise Incident Management (EIM)** - A web-based application that enables users to enter/retrieve incident data, information, and reports on participants enrolled in its programs.
- ❖ **Ad hoc** data collection - ODP also collects and organizes needed data through the creation of customized tools when modification of already existing databases is not possible or when collecting data manually just makes sense. Examples include Excel spreadsheets and Logs.

REMEDIATION in the DDRI Model involves fixing each quality problem, when it is discovered, in order to enhance quality overall and achieve compliance with requirements.

When evaluating a state's efforts to remediate, CMS looks for evidence that <u>all</u> problems found through the discovery process have been addressed, as well as how they were fixed. When remediation data are aggregated into a report, CMS looks for that report to include any compliance issues that were not yet remediated at the time of the report, and the reasons why. In summary, if

discovery data shows less than 100% compliance, CMS expects that each individual problem identified will be remediated so that the state achieves 100% compliance.

IMPROVEMENT is the final step of the DDRI model of quality improvement. As previously mentioned, ODP is expected to implement remediation strategies to fix each quality problem discovered. CMS also expects ODP to analyze aggregate data over time to determine whether compliance with required benchmarks, and overall quality, has been achieved. If systemic problems are identified, ODP must implement long-term solutions (*improvement strategies)* to address the problems, and use data to measure strategy, and thus program success.

Specifically, in any case where aggregate performance is less than 86%, CMS requires the state to develop and implement a quality improvement plan to move results to 86% or greater—or provide a justification for why a quality improvement plan is not needed that CMS can review and consider. ODP, in turn, asks AEs, SCOs and providers to analyze any performance results less than 86%, and if analysis supports that a systemic problem exists, then an improvement strategy should be developed and implemented. As evidence that an entity has done this, ODP, through the QA&I process, reviews the entity's Quality Management (QM) Plan and associated Action Plan developed to address the systemic concern, as well as the data that the entity used to inform the plan's development and measure its progress/success.

FOCUS

FOCUS is a quality improvement approach that focuses on a process, not the individuals involved. The approach offers a multi-step structure that provides clear direction for applying teamwork to solve a process problem. Developed for the healthcare industry, this model is easily adapted to guide improvement projects for HCBS programs, can directly connect to the improvement phase of the DDRI model, and should come prior to using Walter Shewhart's Plan-Do-Check-Act (PDCA) cycle that was discussed earlier.

FOCUS is an acronym that stands for:

❖ **Find** a process to improve upon.

❖ **Organize** a team that understands the process.

❖ **Clarify** current knowledge of the process.

❖ **Understand** root causes of variations in the process.

❖ **Select** a strategy for improving the process (and **Start** the PDCA cycle).

Plan-Do-Check-Act (PDCA)

Implementation of improvement strategies is the final component of the DDRI model and ODP frequently uses Walter Shewhart's Plan-Do-Check-Act (PDCA) Cycle to accomplish this. As previously mentioned, this model consists of the PDCA steps, carried out in a continuous, cyclical manner with the aim of getting closer to a target objective and the goal of system improvements. The PDCA steps include:
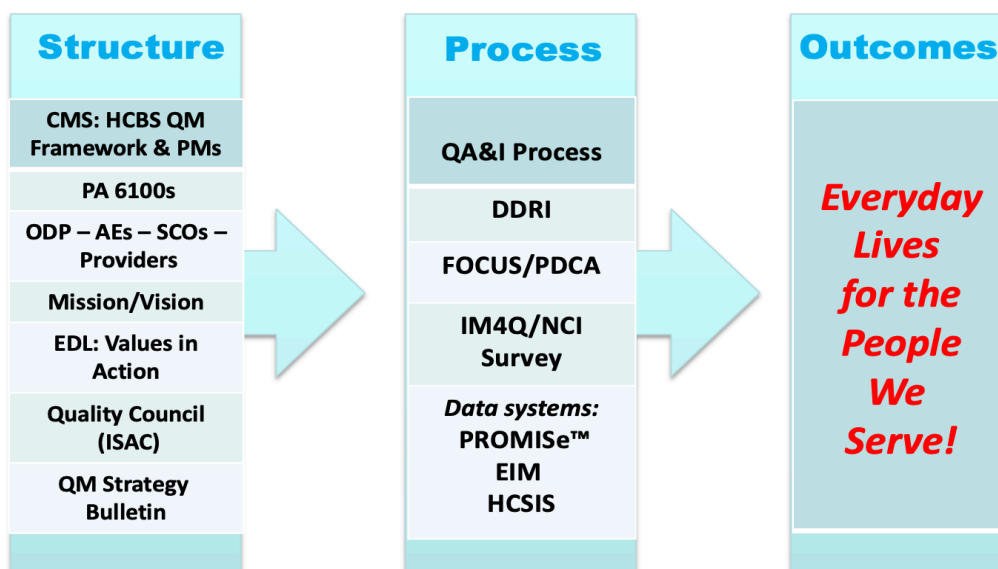
✓ A **PLAN** for how improvement will be accomplished. This step involves writing an action/work plan that specifies goals, measurable objectives, action steps, responsible person(s), and how evaluation of progress towards target objectives will be accomplished.

✓ **DO** involves implementation of the improvement plan, including education about the process change.

✓ **CHECK** involves assessing the effect/impact of the improvement plan by collecting and analyzing data, summarizing lessons learned, and determining the success or failure of the plan.

✓ Finally, **ACT** involves taking action to hold the gains that have been realized or, to continue the improvement process, "as is" or by making changes. If you are taking action to hold realized gains, incorporation of the plan/solution into practice and informing/educating all relevant parties is required. If you are taking action to hold realized gains or to continue the improvement process, continuing to monitor and evaluate progress is also required.

The PDCA cycle and how to apply it to achieve quality improvement will continue to be discussed throughout this handbook.

ODP QM "Puzzle" Summary

To visually summarize the ODP QM "puzzle," its pieces, and how the pieces fit together, we'll use Donabedian's Model of Evaluation. You'll recall that this model enables us to more easily visualize the connection between actions we take and the outcomes we achieve—that structure leads to process and process leads to outcomes. Ultimately the outcome we want is *everyday lives* for the people we serve!

Structure	Process	Outcomes
CMS: HCBS QM Framework & PMs	QA&I Process	*Everyday Lives for the People We Serve!*
PA 6100s	DDRI	
ODP – AEs – SCOs – Providers	FOCUS/PDCA	
Mission/Vision	IM4Q/NCI Survey	
EDL: Values in Action	*Data systems:* PROMISe™ EIM HCSIS	
Quality Council (ISAC)		
QM Strategy Bulletin		

Module 101 – Knowledge Check
See Appendix E for the Answer Key!

#1	Deming's 85/15 theory states that:
	a. Management actions contribute to approximately 15% of problems in the workplace.
	b. Employees and management get along about 85% of the time.
	c. Process/system related issues contribute to 85% of problems, and 15% are traceable to employees.

#2	The key ideas stressed in Deming's "14 points" Management philosophy related to quality improvement are:
	a. Management should empower employees to focus on improving their own performance while management's focus should be on process/system problems.
	b. Management should focus on employees' job performance, as this will cause process/system problems to be corrected.
	c. Management should empower employees to fix process/system problems and require quarterly status updates on progress.

#3	Choose the statement below that best describes the Pareto Principle:
	a. 20% of the output from a given situation or system is determined by 80% of the input.
	b. 80% of outcomes/outputs from a given situation or system are determined by 20% of the causes/input.
	c. The 80/20 rule is a management tool that is applied in industrial settings only.

#4	The F.O.C.U.S. quality improvement approach _____. (Complete the sentence with one of the choices below):
	a. is all about individuals in the system, not processes.
	b. directly connects to the design phase of the DDRI model.
	c. should come prior to application of the PDCA cycle.

#5	In quality management, the acronym PDCA stands for:
	a. Pretty Darn Classy Alice
	b. Plan Do Count Again
	c. Please Do Continuously Act
	d. Plan Do Check Act

F. DATA COLLECTION & ANALYSIS

An entity must _first_ understand its current status or performance in order to identify areas in need of improvement and allocate resources. This understanding starts with an examination of existing data and information.

ODP expects all entities to engage in quality management practices and, as previously discussed, the PDCA cycle is a good tool to use for this purpose, as it stresses the importance of collecting data, and studying results over time, to evaluate how well an organization is performing. Organizations that collect and analyze data about their activities and the results of those activities (including the quality of results and customer satisfaction), then use that information, on a routine and cyclical basis, to improve their business operations, and thus their results, are referred to as _learning organizations_.

Information Management

Learning organizations tend to have effective information management systems. Generally speaking, information management is a system, or set of processes, that are planned and designed for the collection, organization, and use of information (and data) that has value to the organization and its need to make informed decisions based on fact or evidence, as well as its need to create value for its stakeholders, including those served. It can also be viewed very simply as a _cycle_ of processes that support learning activities.

The field of information management has a broad scope across many industries, and can involve a range of simple, physical components, to complex, virtual ones. In some industries, such as healthcare and technology, there is so much to know that higher level degrees and certifications are required. For the purpose of this training, we will cover basic, key ideas, related to your ODP QM work, since improvement models are dependent on the use of data, information, and performance measurement, and therefore your effective management of data and information is essential to the measurement of quality and decision-making.

Information management starts with planning. To help you think through a plan for managing your information, here are a few questions to consider:

Who:

✓ Will be responsible? For the overall information management system, the various parts, data collection, data interpretation (transforming data into information), sharing the information (communicating findings)

✓ Will have access?

✓ Will information be shared with? - widely shared or targeted audience(s)

What:

✓ Do you want to know?

✓ Data will be collected?

✓ What information will be shared? - all information or only significant findings

When:

✓ Will data be collected?

✓ Will information be shared? - monthly, quarterly, annually

Where:

✓ Will data and information be kept? - Filing cabinet (paper), personal computer - Microsoft documents (Excel, Word, and PowerPoint), web-based storage (SharePoint, OneDrive, Docushare) or systems (HCSIS, EIM, HRST, Data Warehouse)

✓ Will information be shared? - internal channels, external channels

How:

✓ Will data and information be organized?

Data vs. Information

So, learning organizations have effective information management systems and use data and information for improvement activities, but is there really a difference between data and information? Yes, there is.

Data refers to uninterpreted observations, facts or material collected as a result of surveys, assessments or general documentation activities.

Information refers to data transformed through analysis and interpretation into a form useful for decision-making.

Data Types

Quality, safety, and performance improvement work involves different types of data and the statistics that are associated with them. This can be a source of confusion for people who are new to data analysis and its use in quality and performance improvement. For this reason, we will define two basic categories of data here.

One way that data is often categorized is by whether it is qualitative or quantitative.

- ❖ **Qualitative Data** describes characteristics, qualities, or attributes and is also referred to as *categorical, nominal* or *attributes data*. It can be collected using surveys, interviews, and observations. Examples include: gender, test status (pass/fail), hair color, levels of education, attitude towards something (strongly agree to strongly disagree), etc. As you can see by the examples, qualitative data can include data with only two values (binary) or data that has more than two values. For qualitative data that has more than two values, numerical values can be assigned to each category as a label to facilitate data analysis (for example – Likert scale), but these assignments have no numerical value.

❖ **Quantitative Data,** also referred to as *continuous data* is measurable and each value in the data set has a unique numerical value. Examples include: height, weight, number of cows in the field, amount of money in your wallet, number of people that live in your household, etc.

Here are some ODP-related examples of qualitative and quantitative data.

ODP *Qualitative* Data Examples	ODP *Quantitative* Data Examples
❖ Are participants happy in their jobs? ❖ What factors contributed to medication errors? ❖ How satisfied are participants with the professionalism of staff? **Potential Response Options** 1 - Very Satisfied 2 - Satisfied 3 - Neutral 4 - Unsatisfied 5 - Very Unsatisfied	❖ Number of: *Participants employed *Trained staff *Medication errors per site ❖ Amount spent per individual

Sampling

No discussion about data collection or data organization is complete without addressing sampling. Sampling is the process of selecting a subset from a population, for the purpose of accurately estimating characteristics of the entire population; also referred to as *"representative sampling."* The goal is a sample small enough to be manageable by resources, yet large enough to provide statistically significant results.

In general, the **entire population**, also referred to as the "N" or sample universe, is what we're trying to learn something about and we are using a subset, also referred to as a **sample size**, or "n" to do it. A population can be anything, e.g., all waiver recipients, service plans or critical incidents.

The advantages of sampling include:

- ❖ It reduces the workload
- ❖ It reduces the cost of collecting data
- ❖ Data collection is faster
- ❖ It can improve the accuracy of the data

ODP collects and organizes large amounts of data to monitor compliance with CMS waiver assurances, as well as federal requirements, and ODP standards. There are a variety of sampling methods used in this process.

It is important to distinguish between a sample size and a sample universe, especially for reporting purposes.

We <u>start</u> with the **sample universe (entire population, "N")** and then we randomly <u>select</u> a **sample size (subset, "n")** from the sample universe.

In the example below, we are looking at a fabricated performance measure that addresses out-patient access to medical care. In 2019, there were 27,400 out-patient clients (sample universe) during the review period and 379 in the sample size.

Performance Measure:	Number and percent of out-patient clients who reported having prompt access to needed medical care		
Numerator:	Number of out-patient clients who reported having prompt access to needed medical care		
Denominator:	Number of out-patient clients surveyed		
DATA	2017	2018	2019
Sample Universe (entire population from which your sample is drawn):	17,000	22,600	27,400
Numerator (# compliant):	295	316	350
Sample Size (denominator):	376	378	379
% Compliant:	78.5%	83.6%	92.3%

How do we determine the correct, representative sample size? Again, a representative sample is a subset of the sample universe that seeks to proportionally reflect specified characteristics exemplified in a target population. Fortunately, you don't have to be a mathematician or statistician to calculate sample sizes!

ODP uses the online Raosoft sample calculator to calculate sample sizes based on established parameters.

Using the Raosoft tool, we calculated a representative sample size for our 2019 fabricated example above, based on the following criteria:

- Margin of error (amount of error you can tolerate) = 5%
- Confidence level (estimated range of values likely to include the population parameter you are studying) = 95%
- Population size (sample universe) = 27,400
- Response distribution (what you expect the results to be) = 50%

Take time to visit the Raosoft site (www.raosoft.com/samplesize) for a more detailed explanation about how the tool works.

Data Collection & Review

Routinely, entities should be accessing available data from existing data sources and organizing it for review and analysis. Data could be reviewed from QA&I full reviews or entity self-assessments, EIM, HCSIS, IM4Q, etc. It could also be collected through use of ad hoc spreadsheets or logs that an entity develops to track data about a specific topic.

For example, an entity may need to develop a spreadsheet to track:

- # of people who have community-integrated employment, or
- # of people who need a communication device and of those, how many have a device

No matter what data is collected, you should always consider taking the next step to display it graphically, as you can often learn more from a graphic visualization than from just looking at a spreadsheet or table of numbers.

Data Analysis Tips

You should always review the data and make any corrections needed *before* you begin your analysis. This will ensure confidence in the results, as well as save you time and effort, if an error is discovered later in the process.

During data analysis, you will make important choices about which information should be emphasized, minimized, or even left out of the analysis. It is important to remain focused on the question(s) you are trying to answer and the relevance of the information to the question(s). Since the goal of data analysis is to highlight useful information, reach conclusions, and support decision-making, your analysis should be simple, clear, and concise. Data visualization can help you with this.

G. DATA VISUALIZATION

Data Visualization Benefits

No matter what data is collected, you should always consider taking the next step to display it graphically, as you can often learn more from a graphic visualization than from just looking at a spreadsheet or table of numbers. This makes sense for analyzing the data and effectively supporting decision-making, as it puts the reader(s) in the best position to identify and understand problems, as well as to measure progress on quality improvement activities. However, when displaying data, it is also important to use the right visualization tool, to ensure that you are providing the information accurately and answering the specific question(s) asked.

Benefits to utilizing data visualization tools include that they:

- ❖ **Summarize data** and make complex information easier to absorb
- ❖ Allow for better **detection of trends**, patterns and cycles compared to a review of raw data alone
- ❖ Help the reader to **remember important facts**

❖ Show **key relationships** between different types of data and

❖ Make your presentations **more impactful.**

Charts and graphs are visualization tools frequently used to summarize data and help you and others experience those "AHA!" moments of understanding what the data is telling you. That's why it's important to understand the ways charts and graphs display information and thus, how to create them.

Common Elements of Data Visualization Tools

Most graphs have two (2) axes, a line that runs across the bottom (horizontally) and a line that runs up the left side (vertically). The line along the bottom is called the **x-axis**, and the line up the left side is called the **y-axis**. Common units of measurement used on the axes are counts, totals, time ranges (e.g., months, years), ages, percentages, etc. The **x-axis** is read across the bottom from left to right and can contain categories or numbers. The **y-axis** usually contains numbers and is read starting from the bottom left of the graph and then upwards. The numbers on the **y-axis** generally, but not always, start at zero (0).

Common elements frequently used to present information to ensure it can be quickly and accurately understood include data labels, tables, legends and sources.

✓ **Data labels** normally come from the source of the data and are used to define that data in the graph or chart. Both axes of a graph should always be labelled to indicate the type of data that they show.

✓ **Data tables** display information in a tabular, or grid form, with rows and columns labeled.

✓ **Data legends** describe the variables that appear in the graph by distinguishing features such as color, size, etc.

✓ **Data sources** identify the source of the data being used, and often the date that the data was extracted from that source.

Commonly Used Data Visualization Applications

So, you have your data, now how do you get started with displaying it with data visualization tools? While there are some free applications (apps) to be found by way of a quick Google search, many require a fee to use them. This is a consideration when you or your organization are shopping around for tools to assist with data visualization needs. There is a multitude of products out there. You just need to choose the best one for you and your organization.

The apps most used across ODP to create data visualizations (ODP does not endorse any particular products) include:

- **Microsoft Excel & Microsoft Word** - These programs are pervasive across most business systems, which makes them a good option that may already be available and familiar to you. Additionally, free online tutorials are provided through Microsoft Office support, and guides, that include videos for those who prefer to watch and learn, are easily found on the Internet.
- **Tableau** - A robust program for more seasoned data visualizers and a good tool for creating comprehensive data dashboards. Note that some users might find this program difficult to master.

Commonly Used Graphs/Charts

There are numerous options for visualizing your data, but the most commonly used graphs in ODP include:

- ❖ Line Graph
- ❖ Bar Graph (Column Graph)
- ❖ Combination Line and Bar Graph
- ❖ Pie Chart/Graph
- ❖ Stacked Column Graph
- ❖ Clustered Column Graph

In addition to the six graphs/charts that ODP generally uses for visualizing data, there is a list of other graphical tools/techniques, known as the "**seven basic tools of quality**," that are commonly considered helpful for troubleshooting quality issues. They include:

- ❖ Cause-and-Effect Diagram, also known as the *Fishbone* or *Ishikawa Diagram*, after its creator
- ❖ Check Sheet
- ❖ Control Chart
- ❖ Histogram
- ❖ Pareto Chart
- ❖ Scatter Diagram
- ❖ Stratification Chart

*Note: **DO NOT PANIC!** The 7 Basic Tools of Quality are being covered here only to expose you to them. There may not be a need to use them in most ODP-related activities, but they are commonly used in the quality management world elsewhere, and you may find one or more of them helpful in addressing a problem within your organization.*

For quick reference, here is a table that includes all of the tools listed above, along with other names that they might be known as, how they are used, and other key information.

See Appendix D for examples of the tools in this table.

QM Tools	Also Known As	Use	Key Information
Line Graph	Line Chart; Run Chart; Trend Chart	To show trends over a period of time and to observe effects of process improvement	• Display or detect variation • X-axis should represent unit of time • Wait to interpret results until you have at least 10 data points • Trends generally represent a statistically important event that requires further investigation
Bar Graph	Bar Chart; Column Chart (when bars are vertical)	To show data frequency distribution/spread, data symmetry or skewness, extreme data outliers	• Small data set • Separate bar for each value • X-axis consists of discrete values (each bar is a separate group) - gaps separate bars • Y-axis shows frequency scale (% or counts)
Combo Line and Bar Graph	N/A	When presenting 2 data series that have very different scales and might be expressed in different units	• Line graph overlays the bar graph, with scales on both right and left axes
Pie Graph	Pie Chart	To understand all responses to a measure	• "Slices" usually represent percentages (total 100%) • Not an analysis, only visual representation of data
Stacked Bar Graph	Stacked Bar Chart; Stacked Column Chart (when bars are vertical)	To compare items in a specific range of values, show relationship of sub-items to the whole, and/or review individual categories across time units	• Bars that represent categories are "stacked" on top of each other (together represent the whole)
Clustered Bar Graph	Clustered Bar Chart; Clustered Column Chart (when bars are vertical)	To graphically represent data across years, that is focused on a category of data, and group data for comparison at a glance	• Similar to bar charts, but allow for grouping of bars side-by-side for comparison purposes • Clustered columns are a great way to graphically represent data across years and present different data categories within those years
Fishbone Diagram	Ishikawa Diagram; Cause and Effect Diagram	To analyze or display potential causes related to a problem; to discover "root causes" of data variations	Most common categories: • 5Ps - Patrons (system users), People (workers), Provisions (supplies), Places to work (environment), and Process/Procedures (methods, rules) *OR* • 4Ms - Method, Manpower, Material, and Machinery
Check Sheet	Defect Concentration Diagram; Tally Sheet (quantitative data)	To easily collect and analyze data repeatedly, at same location, by same person or collect data on frequency/pattern of problem/defect	• Can be used to collect qualitative or quantitative data • Decide which problem will be observed and which data points will be collected • Create simple form: list data points to be collected, via use of a checkmark/slash/x, with a total column to allow for easy analysis without recopying

7 Basic Tools of QM	Also Known As	Use	Key Information
Control Chart	Shewhart Chart; Process Control Chart; Statistical Process Control (SPC) Chart	To distinguish variation from common and special causes, assist with eliminating special-cause variation, and to observe effects of process improvement	• Line/Run/Trend Chart with upper and lower control limits (mostly industrial use) • Construct the same as Line/Run/Trend Chart • Calculate control limits and plot on chart to examine data for variation • Common cause variation = variation within the control limits with no pattern (expected - generally no action needed) • Special-cause variation = variation outside the control limits or within the control limits with a pattern (should take action to intervene/correct)
Histogram		To show data frequency distribution/spread, data symmetry or skewness, extreme data outliers	• Bar graph for large data set • Specialized type of bar chart used to summarize groups of data • Divided into equally sized ranges of values along x-axis, bars are not separated by gaps
Pareto Diagram	Pareto Chart; 80/20 rule	To identify most frequent or most important factors contributing to problem	• Series of bars - displays priority for problem-solving as observed by the varying heights of bars • Arrange bars in descending height • Related to Pareto principle (80/20 rule) - 80%of the problems/effects come from 20% of causes; thus by focusing on the 20% of causes, 80% improvement can be achieved
Scatter Diagram	Scatter Plot	To determine extent to which 2 variables relate to one another (correlate - positive, negative, none)	• Often used in combination with Fishbone or Pareto diagrams • At least 25 pairs of data points for 2 variables • Y-axis displays dependent variable, x-axis displays independent variable • Positive correlation = as one variable increases, the other also increases • Negative correlation = as one variable increases, the other decreases
Stratifica-tion Chart	"is/is-not matrix"	To demonstrate underlying patterns or show where a problem does and does not occur; use before data collection to know what patterns or differences to look for or use after data collection to determine factors that affected results	"Divide and conquer" strategy - for example: • A chart showing medication errors in total, might include multiple sites and show a problem with medication errors in general • Separating/graphing the site-specific data will display where the problem is occurring and where it is not, showing where efforts should be focused

H. PRIORITIZING YOUR EFFORTS

Now that you have collected, analyzed and used data visualization tools to display your data, it's time to identify an area in need of improvement and convene a Quality Improvement (QI) Team. You may have identified more than one area in need of improvement however, it may not be realistic to implement improvement activities in all identified areas at the same time. Therefore, you will need to prioritize your efforts to ensure that improvement activities are manageable, effective in enhancing services, supports, and outcomes for individuals, and that available resources are used wisely. With a particular improvement in mind, a QI team, comprised of members who have expertise in the identified area, should be convened to review the data and develop strategies for improvement.

Data-Based Decision Making

A QI Team should always start by reviewing the data, as it will help them focus and prioritize their efforts. As opposed to anecdotal or intuition-based decision-making, data-based decision-making helps a QI Team (and organizations) effectively manage its operations by using a systematic approach, rooted in facts.

Let's look at two examples to consider the differences:

> **Example 1**—A store owner visits one of his many stores and meets with its manager to learn about customer satisfaction with the sales support and the quality of the products. The manager had gathered information by asking customers to describe their experience with the product and the sales support. The manager reports that the customers who were questioned responded positively to the product and the sales support.

> **Example 2**—A store owner notices there is a decline in revenue by 10%. The owner is concerned that customers are not satisfied with the sales support or the quality of the products. A survey is developed and implemented in all his stores and the information reveals

that of his 20 stores, 15 have a greater than 95% satisfaction rate in both areas. Five (5) stores have a satisfaction rate below 85%, in at least one area.

As you can see, where to prioritize efforts and resources becomes much clearer by using a data-driven approach like described in the second example. Additionally, a data driven approach can help to *remove bias* from the equation, which could have been a factor in the first example, if the manager intentionally "cherry-picked" which customers were asked about their experiences, based on what they purchased, if they knew them, etc.

Selecting Improvement Activities

When selecting improvement activities, it's best to consider these key organizational factors:

- ✓ **High Risk** areas—Have the potential for serious complications or negative outcomes for individuals, the population served, and the organization.

- ✓ **High Volume** areas—Affect a large percentage of the population served and, therefore, have a greater potential to implement positive change in an organization.

- ✓ **Problem Prone** areas—Processes/procedures within the organization that have been known to impede effective and efficient functioning of the organization.

In essence, where can you get the most impact for your efforts ("bang for your buck")?

Person-Centered Outcomes Focus

ODP specifically looks for improvement projects to be **person-centered** with performance data that specifically targets **people outcomes**, not compliance outcomes. We want to see improvement projects that focus on positive results for the people we serve instead of projects that focus on whether or not a box was checked.

Examples of "person-centered" or "people outcomes" are:

- Increase # of individuals with competitive integrated employment (CIE)
- Increase # of individuals who are using the Life Course to develop plans
- Decrease # of medication errors

I. ORGANIZING A QUALITY IMPROVEMENT TEAM

Now that you have identified an area in need of improvement, it's time to convene a Quality Improvement (QI) Team. *Successful* quality improvement activities are *always* a team effort and under the right circumstances, a team harnesses the knowledge, skills, experiences, and perspectives of its members to achieve significant and lasting improvements. Because a QI Team's members are part of the system and know the process well, they generate solutions more likely to succeed.

What Is a QI Team?

What really makes a group a QI team? It's the application of the tools and techniques of QM to accomplish a specific goal.

QI teams can be convened in response to internal or external forces. For example, to address internal systems or processes that are outdated or no longer efficient and sustainable, *or* to address concerns of internal or external stakeholders, *or* to improve customer satisfaction. There are numerous reasons for convening a QI Team but some of the more common are to:

- Achieve a complex task
- Demand accountability
- Find a clear path forward - maybe prior efforts to address a problem haven't succeeded
- Create culture change
- Use resources efficiently/effectively

A QI Team is convened when we want to take advantage of the diverse perspectives and expertise of staff to optimize organizational performance. The structure of a QI team and how it functions are also very important to its success.

QI Teams—Best Practices

So, if the structure of a QI team and how it functions are critical to its success, then how do you transform a group of people that may or may not commonly work together into a *functional* and *effective* QI team? This is one of the biggest challenges confronted by organizations. The key to tackling this challenge is to incorporate QM practices into group activities and adapt the culture of the group to one of collaboration and mutual support. A successful QI team optimizes the talents of each member to achieve improvement and sustain it.

A highly practical QM skill is understanding what a QI team is and how it functions. ODP QM certified staff know:

- ❖ When a QI Team needs to be convened
- ❖ How it functions differently from other groups
- ❖ How to participate specific to a QI team role and
- ❖ How to facilitate a QI team

During the 2-day virtual QM Certification class, participants are assigned to a QI team to experience participation and be introduced to the various stages that QI teams move through. These QI teams are assigned an area in need of improvement, given a data set to use, and will develop QM plans and supporting Action plans to address the improvement project.

Highly functional and effective QI Teams use QM tools, methods and practices in a collaborative effort, and make data-driven decisions by **consensus**, to achieve their goal. Note that when making decisions by consensus, each team member agrees. This is in contrast to a vote or compromise, where someone must give up something while other members may not. <u>All members have to agree.</u> QM at its best is a

collaborative process that synthesizes the knowledge, experience, expertise, and innovation that each member of the team contributes.

Who Convenes a QI Team?

So, who convenes a QI Team? Anyone in an organization can raise the need to convene a QI team, but it is ultimately organizational leadership that authorizes convening a team.

Authorizing the convening of a QI team is not the only responsibility of organizational leadership, however, it must also clarify the work of the team. Specifically, the process or system to be improved needs to be clearly identified, the expected outcomes and timeframe for achieving them need to be defined, limits of the team's work need to be established, such as the team's authority for decision-making, and the team needs to understand what resources are available to them.

Lastly, <u>leadership buy-in and support for the QI Team's work is necessary if it is to succeed</u>. This cannot be emphasized enough.

QI Team Membership—Factors to Consider

The purpose of the QI team guides team membership. For example, if the process to be improved upon is a risk management function, then the agency's Risk Manager should be a member of the team. If the process to be improved upon involves medication administration errors, then someone who actually administers medications should be a member of the team. It is imperative for QI team success to include "ground-level" team members who are involved in whatever process or system you are trying to improve. We likely all have experiences receiving directives from upper-levels of an organization regarding a change in a process that we know is doomed from the start due to something fundamental that was overlooked because the "ground-level" wasn't included in the decision-making process. Involving people who will implement a future process or system is essential to ensuring achievement of a positive outcome.

Representatives from all levels of the organization may or may not be considered for inclusion in a QI team. However, if the system or process is cross-functional or incorporates multiple disciplines, QI team membership should always be representative of each of the functions or disciplines to ensure success.

Subject matter experts (SMEs) and ad hoc members are people whose expertise or input may be needed at some point in the work of the QI team; however, they may not need to attend every meeting. Being included or consulted only when their expertise is required helps to keep the team a more manageable size, which is approximately 5-8 members ideally; *however*, having a group with expertise and knowledge of the process takes precedence over limiting the size of the group.

QI Team—Key Roles

There are three key roles on a QI team – the **QI Team Lead**, the **QI Team Facilitator**, and **team members**. Leadership will name the QI Team Lead when a QI team is convened, based on the purpose of the team and the person's expertise and knowledge of the process or system to be improved. Leadership and the QI Team Lead will then identify the remaining team members, taking into consideration some of the following factors:

- ❖ Their knowledge of the problem, and
- ❖ Whether they are:

    - ✓ An effective team player
    - ✓ A good problem solver
    - ✓ An effective communicator
    - ✓ Reliable
    - ✓ Flexible
    - ✓ Engaging with others

In some cases, leadership may also choose a **QI Team facilitator.** This person serves a neutral/objective role in the team process.

QI Team—Key Roles Defined

To help with decision-making related to who would be a good fit for the QI Team roles of QI Team Lead and QI Team Facilitator, we'll describe the primary duties of each role here in more detail.

The Primary Duties of the **QI Team Leader** are to:

- ❑ *Educate* members about the purpose and priorities of the team
- ❑ *Build* consensus (remember this means each team member agrees)
- ❑ *Act* as a liaison between the team, other groups and leadership
- ❑ *Update* the team with organizational decisions and activities
- ❑ *Assess* the team's progress
- ❑ *Make* assignments or ask for volunteers
- ❑ *Support* team members' skills development

The Primary Duties of the **QI Team Facilitator** are to:

- ❑ *Mentor/model* QM best practices
- ❑ *Facilitate* data collection and analysis
- ❑ *Help* the team develop improvement plan
- ❑ *Provide* feedback and summarize key points
- ❑ *Solicit* input from each member
- ❑ *Assure* the team sticks to the agenda, objectives and timeframe
- ❑ *Remain* <u>neutral and objective while suggesting/recommending only</u>

QI Team—Additional Team Member Role Defined

A QI Team would not be complete without additional members who have knowledge of the problem and are effective team players and communicators, good problem solvers, reliable, flexible, and engaging with others. Additional QI Team members need to be able to communicate clearly and meaningfully contribute to the team's activities. They are the ones who identify opportunities for improvement, as well as obstacles or barriers to the team's work, and are the ones to propose solutions to identified barriers.

Each team member should follow established ground rules and may also volunteer to take on additional tasks such as:

- Setting up virtual meetings and keeping track of meeting agendas, minutes, schedules, and attendance

- Completing assignments

- Helping with data visualization and reports

QI Team—Guiding Documents

Guiding documents provide structure and organize a QI Team's work. They are introduced during the initial organizational meeting and referenced throughout the life of the team. They include:

a. **Meeting Agenda**
   o Ensures the team stays on task during the meeting
   o Established by the QI Team Lead
   o Shared well in advance of meetings so that team members are prepared
   o Can be formal or informal
   o Identify clearly stated meeting goals

- o Can maximize productivity with a note taker, as they can follow the agenda and fill in notes along the way

b. **Ground Rules**

- o Simple guiding principles
- o Communicate how to handle situations proactively
- o Aid in functioning collaboratively as a team
- o Established by QI Team members – ideally in first organizational meeting
- o An opportunity to utilize the QM tool "brainstorming," as all team members have equal standing as each contribute

See Appendix C for an example of a set of Ground Rules.

c. **Team Purpose Document**

- o Developed with leadership input
- o Written clarification of the work of the team
- o Specifies the process or system to be improved, the expected outcomes and timeframe for achieving the objective, limits of the team's work, and resources available

d. **High-Level Action Plan**

- o May be introduced to jumpstart discussion
- o Driven by leadership's specific expectations for outputs and process
- o Develops into a living document that can be modified as the team's work progresses and can function as a progress report and give guidance to those responsible for specific action steps

e. **Meeting Notes/Minutes**

- o Memorialize discussions/decisions and capture action steps

Use of these guiding documents to keep the team's work structured and organized helps the team remain effective and attain its objective.

J. EVOLUTION OF A QI TEAM

Now that we've discussed organizing a QI Team, let's talk about the evolution of a QI Team, or really any team for that matter. For the purpose of this training, we will be discussing team evolution in the context of QI Teams and the quality improvement process.

It's important for QI Team members to be aware that all groups go through stages on their way to effective performance. Additionally, in larger organizations, some QI Team members might not have worked together before, so getting to know one another should start with the first meeting. Under the right circumstances, a team harnesses their collective knowledge, skills, experiences, and perspectives to achieve significant and lasting improvements. For this reason, it is imperative that all team members get to know each other, understand these stages, and take action to work through the stages for the success of the team's mission.

Psychologist Bruce Wayne Tuckman (you read that right) first proposed the *Forming–Storming–Norming–Performing* model of group development in 1965 with his paper, "Developmental Sequence in Small Groups." In his paper he indicated that these stages are all inevitable and necessary for a team to grow, face challenges, tackle problems, discover solutions, and deliver results.

Understanding that a QI Team goes through these stages and knowing what occurs during each one, helps the team to be aware, anticipate, and address issues that arise relative to the stage the group is in. It also helps guide the work of the team, as certain activities or outputs are associated with each stage.

The QI Team leader has specific responsibilities related to the evolution of the team and ensuring the team continues to be engaged. These responsibilities include:

- ✓ Identification of the current stage of the team

- ✓ Consideration of what needs to be done to move on to the next stage of evolution

- ✓ Adjustment of their behavior and leadership approach accordingly

It's also important to note that teams may go back and forth between stages. For example, disruptions to the group dynamic and workflow can occur when a new team member joins the group, a member that has been absent for a while begins to participate again, or a new business direction occurs. These situations might cause the team to have to reevaluate their roles and objectives and could cause a norming or performing team to slide back to the storming stage.

Forming Stage

Although each QI Team is unique to its purpose and interpersonal dynamics of team members, the stage a team is in is determined by what is occurring during team meetings and discussions. When a QI Team is initially convened, this stage is referred to as "Forming." Characteristics of a team in the Forming stage include:

- ❖ Slow to start

- ❖ Members are excited, enthusiastic and happy to be on board, so they are on their best behavior and tend to stick to safe topics, however...

- ❖ There is also uncertainty about roles, how to contribute, and how to work together

The Forming stage is the time that the QI Team begins to understand their task and the expectations. It is also when members will generally take the opportunity to vent about what they feel is wrong related to the task in front of them and to criticize leadership. This is typical during the beginning of team formation and it does serve a purpose in team development. The QI Team Lead and QI Team Facilitator can assist the team through this stage by taking the lead and providing clear expectations and consistent instructions.

Storming Stage

During the "Storming" stage, individual team members may feel disgruntled and may *not* look forward to continuing to participate or meet with the team. Some of the progress that was realized during the Forming stage may be lost. Characteristics of a team in the Storming stage include:

- ❖ Lack of consensus

- ❖ There is conflict and members are more comfortable expressing disagreement

- ❖ Forgetting the ground rules

- ❖ Members may express strong emotions and may be frustrated with lack of progress

- ❖ Skepticism about the team process and whether they will succeed

- ❖ Members might maneuver for more influence and

- ❖ There is more competition between members and emphasis may be more on individual accomplishments, instead of team collaboration.

The QI Team Facilitator needs to anticipate disagreement and be prepared to intervene with a comment, reminder, or suggestion, or an activity such as an ice breaker or fun exercise to lighten the mood and refocus the group. There are many resources available on the Internet that the facilitator can explore *beforehand*, to have something ready, should the need arise. Lastly, the QI Facilitator should remind the team that this is normal progression in their evolution, that they are actually making progress, and that everyone on the team has value to the work of the team. Normalizing matters in this stage and leadership should be encouraged.

Norming Stage

The third stage in the evolution of a QI Team is referred to as "Norming." During this stage, the work of the team begins to take on an easier flow. Characteristics of a team in the Norming stage include:

- ❖ Relief/reduced anxiety
- ❖ Reconciliation/worked through challenges
- ❖ Productive meetings/Little successes
- ❖ Cohesion is developing
- ❖ Members draw on each other's strengths and are more:
    - ▪ Engaged and supportive of each other
    - ▪ Familiar with everyone's style and
    - ▪ Patient with others

The <u>QI Team Facilitator</u> supports the team during this stage by recognizing individual and group efforts, providing learning opportunities and feedback, and monitoring the energy of the group. They should also continue to maintain an objective, neutral perspective in order to assure that the team's work products reflect collaboration and are not influenced by any one person.

Performing Stage

The fourth and final stage in the evolution of a QI Team is referred to as "Performing." Characteristics of a team in the Performing stage include:

- ❖ Demonstration of interdependence
- ❖ Greater confidence as individual team members and as a team
- ❖ Ability to effectively produce as a team and
- ❖ Outputs/outcomes align with expectations

The <u>QI Team Facilitator</u> supports the team by celebrating accomplishments, guiding from the side lines with minimal intervention, encouraging group decision-making and problem-solving, and providing opportunities to share learning across teams.

	Module 102 – Knowledge Check
	See Appendix E for the Answer Key!
#1	Information management systems are planned and organized for data collection, interpretation, and use. **TRUE or FALSE**
#2	There is really no difference between data and information; they are just different terms used to describe the same thing. **TRUE or FALSE**
#3	Selecting a subset of cases from within a population in order to accurately estimate characteristics of the whole population is called: a) Estimation b) Prioritization c) Sampling d) Randomization
#4	It really doesn't matter what type of visualization tool you use to display data, as long you include relevant axes, legends and data sources. **TRUE or FALSE**
#5	Variation in data that indicates there are unique circumstances that are not part of the normal process and have led to unpredictable results is referred to as: a) Astronomical Value b) Special Cause c) Upper and Lower Control Limits d) Common Cause
#6	The QI Team Lead manages the team and acts as a liaison between the team, other groups and leadership. **TRUE or FALSE**
#7	The stages of QI Team development include forming, storming, norming and developing. **TRUE or FALSE**

K. ODP EXPECTATIONS FOR APPLYING PDCA

As mentioned previously, you will need to prioritize your efforts to ensure that performance improvement activities are manageable and effective in enhancing services, supports, and outcomes for individuals, and to ensure that available resources are used wisely.

ODP expects entities will engage in efforts, or strategies, that are person-centered and seek to *directly improve the lives of individuals being served.* **Person-centered** means focused on the person, what they can do, what their needs are, and what they want. Remember - we want to see improvement projects that focus on positive results for the people we serve instead of projects that focus on whether or not a box was checked. Examples of person-centered performance data/information that could be used to improve person-centered "people" outcomes include, but are not limited to:

- ISAC recommendations - related data and performance measures
- Health and safety related data, including incident management
- NCI/ IM4Q related data

*Note: *Be prepared to show and discuss the <u>person-centered performance data</u> used to develop your QM Plan with ODP or AE reviewers.*

QM Plan vs. Action Plan

Once you determine the area(s) in which to focus your improvement efforts, you will need to develop <u>a plan</u> that includes <u>two parts</u>:

Part #1 - the QM plan, and

Part #2 - the Action plan (how you will put the QM plan into action)

Let's say that again in a different way – _One document, two parts_. Sometimes there is confusion surrounding this concept because, due to limited space, a QM plan's action plan, with all of its components, cannot effectively fit on the page inside the QM plan. Therefore, the action plan of the QM plan is often pulled out into a separate document, so that there is enough space for all of its components. The action plan is not a stand-alone document, but rather an extension of the QM plan.

*Note: A QM Plan is not considered complete without both parts!

Key points to help you distinguish a QM plan from its Action plan include:
The **QM plan (Part #1)** describes, in _broad terms_, the _long-term plan_ for moving forward, and speaks to an organization's mission and vision through identifying improvement priorities. A QM plan _does not change_ over the course of its current _lifecycle_, which is recommended, per best practice, to be a fiscal year.

The **Action Plan (Part #2)** is an _extension of the QM plan;_ a _support document_ that is essentially a _blueprint for how the QM plan will be implemented._ An action plan describes, _in detail_, action items to achieve target objective(s) in the QM Plan. In contrast to the QM Plan, the action plan is a _working document_ and does change. It should be continually modified and updated based on findings and lessons learned, as you regularly monitor and evaluate information gleaned from your data being collected. Lastly, the action plan _serves as a status report_ for the QI team and its completion of established action items.

Now that you understand how these "parts" are connected and actually make up a "whole," we'll move on to discuss the QM plan (Part #1) in more detail and then after that, we'll discuss the Action plan (Part #2).

Part #1: QM Plan: Components

The QM plan template you use, can be the ODP template, or a template of your choosing, provided that it includes these components:

- ✓ Focus Area
- ✓ Goal
- ✓ Outcome
- ✓ Target Objective
- ✓ Performance Measures
- ✓ Data Source
- ✓ Frequency
- ✓ Responsible Person

 QM Plan development is part of **Step #1 in the PDCA cycle - Planning**.

Part #1: QM Plan: ODP Template

The QM plan template below was developed by ODP and its stakeholders. Entities can choose to use this template or develop one of their own, provided all of the required components outlined in the previous slide are included.

In the sections to follow, we'll discuss each of these components in more detail, along with ODP's expectations for their completion.

Quality Management Plan			
Entity Name:		**Year:**	
Focus Area:			
Goal	**Outcome**	**Target Objective**	**Performance Measures/ Data Source(s)/ Frequency/Responsible Person**
			Performance measures: **Data Source(s):** **Frequency:** **Responsible person:**

See Appendix G for the QM Plan & Action Plan templates.

Part #1: QM Plan: Focus Areas

You'll recall from earlier sections of this handbook, ODP uses the *Home and Community-Based Quality Framework* (HCBS) as the foundation for quality management. This *Framework* visually displays, with arrows, that program design and implementation, related to the focus areas and their interaction with QM functions, determines the results/outcomes achieved for the individuals enrolled in the program. Additionally, using this *Framework* addresses fundamental program requirements in service standards, provider qualifications, assessment, service planning, monitoring participant health and welfare, and critical safeguards (e.g., incident reporting and management systems).
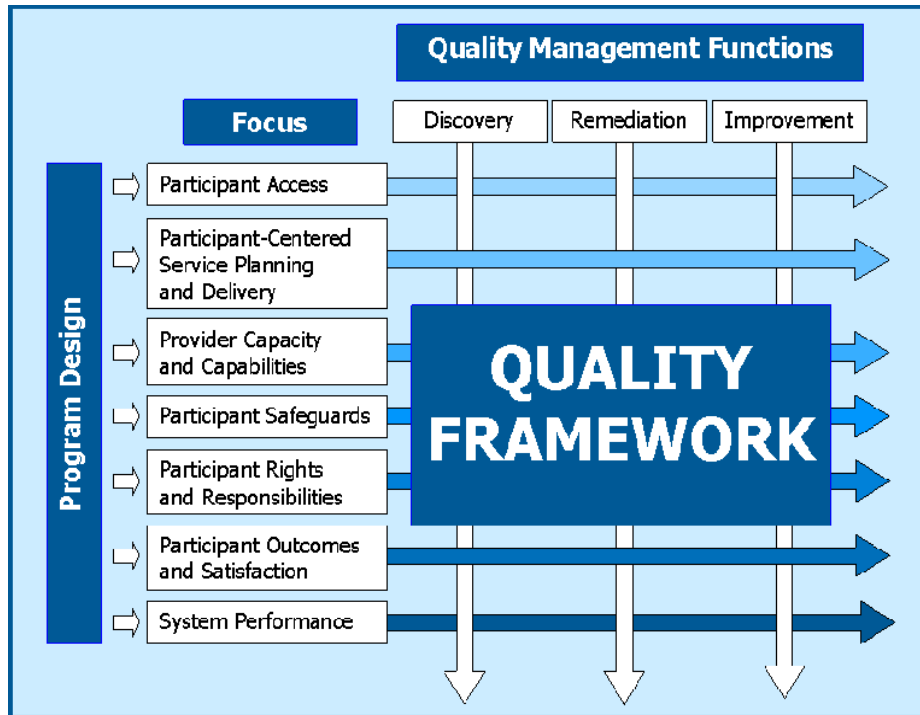
The broad outcome, or "Focus" areas affected by program design are listed in the *Framework* as:

- ❖ Participant Access

- ❖ Participant-Centered Service Planning and Delivery

- ❖ Provider Capacity and Capabilities

- ❖ Participant Safeguards

- ❖ Participant Rights and Responsibilities

- ❖ Participant Outcomes and Satisfaction

- ❖ System Performance

For your consideration when writing your QM/Action plan, we've provided the descriptions of the HCBS Focus areas, in the table below. After reviewing all 7 Focus (outcome) areas, you may determine that some improvement activities may fall into more than one focus area. Use your best judgement when making the final decision, keeping in mind the business operation that will be the lead for the improvement activity.

HCBS Focus Area	Description
Participant Access	Individuals have access to home and community-based services and supports in their communities.
Participant-Centered Service Planning and Delivery	Services and supports are planned and effectively implemented in accordance with each participant's unique needs, expressed preferences and decisions concerning his/her life in the community.
Provider Capacity and Capabilities	There are sufficient HCBS providers, and they possess and demonstrate the capability to effectively serve participants.
Participant Safeguards	Participants are safe and secure in their homes and communities, taking into account their informed and expressed choices.
Participant Rights and Responsibilities	Participants receive support to exercise their rights and in accepting personal responsibilities.
Participant Outcomes and Satisfaction	Participants are satisfied with their services and achieve desired outcomes.
System Performance	The system supports participants efficiently and effectively and constantly strives to improve quality.

Part #1: QM Plan: Goal & Desired Outcome

After you've chosen your Focus Area, you'll move on to develop your goal and outcome statements. On a QM plan:

A **goal statement** is driven by an organization's mission, vision, values and quality framework and it sets the direction for all activities to follow. It is a written statement, using broad/general terms in the present tense, but describes a desired ideal, future accomplishment, not tasks or activities.

  ✓ For example – People are engaged and participating in their community.

An **outcome statement** describes a desired result that represents a change in status for individuals within the ideal future accomplishment described in the goal, and it drives the target objective(s).

  ✓ For example – People work in Competitive Integrated Employment (CIE).

Both of these statements should be *person-centered* and *simply stated.*

Part #1: QM Plan: Target Objective(s)

After you've developed your goal and outcome statements on your QM plan, you'll move on to develop the Target Objective(s) – where we begin to see more specificity.

First, let's break down the term "Target Objective" (TO) into its two parts and define them, as this might help clarify for anyone with experiences in service planning, treatment planning, strategic planning, care planning, etc. A **target** is a precise, quantifiable desired result. An **objective** describes where you want to go, but not necessarily how far, and is generally vaguer than a target. Depending on your experiences, you likely have heard these words used interchangeably, together, or separately to refer to similar parts in whatever plan you were working with.

In an ODP QM plan, the terms are used together, to represent **one statement** that describes where you want to go (what you want to happen), in precise, quantifiable terms (by how much and by when), using S-M-A-R-T guidelines, baselines and benchmarks. How the outcome and goal, at least in part, will be achieved, through specific and measurable action. It "targets" the level of performance you want to achieve, in a simple format:

❖ ***What you want to happen + by how much + by when = TO***

✓ For example: Increase # of people working in CIE by 20% to 103 by June 30, 2019.

In this example, baseline data for FY 17/18 was used with 86 people working in CIE. Achieving the TO increase of 20% would result in 103 people working in CIE by the end of FY 18/19.

Part #1: QM Plan: S-M-A-R-T Target Objective(s)

A TO should be S-M-A-R-T*,* as indicated previously, and can be established using *baseline* data and *benchmarks*, which will be described next. In cases where baseline data does not exist, the TO for the QM Plan could be to establish a baseline or look externally for a benchmark.

You previously may have been exposed to the guideline called S-M-A-R-T. It's a great tool for remembering the criteria to guide you in writing your target objectives.

<u>**S-M-A-R-T** stands for:</u>

S—Specific

M—Measurable

A—Attainable (Achievable)

R—Realistic

T—Time-bound

Part #1: QM Plan: Baselines and Benchmarks

A target objective can be established using baseline data and benchmarks. A **baseline** is a starting point used for comparison established by tracking an organization's performance over time, generally at least one year, and provides an objective assessment of the current level of performance. It answers the question, "where are we now?"

A **benchmark** is a *reference point* for improving performance through quality improvement activities established using sustained, superior performance (and ideally a demonstrated best practice). Benchmarks can be established *internally* by *starting with the organization's baseline* and determining a realistic level of improvement to strive for, or externally by a regulatory body, or by sustained and superior performance of a similar organization/system. It answers the question, "where do we want to go?" The practice of using benchmarks, or **"benchmarking,"** to compare your results against a reference point (*benchmark*) can be done with organizations or individual practitioners.

Part #1: QM Plan: Performance Measures (PMs)

Performance measurement is foundational in performance evaluation. If you don't measure the results of your improvement efforts, you can't definitively tell if you've succeeded or failed. Therefore, you must simply and clearly state the performance measure you plan to use to evaluate your efforts, specifically related to your target objective, in your QM plan.

Performance measures are quantifiable measurements, agreed to beforehand, that reflect critical success factors of an organization. They may be a simple number, or count, or percentage and are informed through collection and analysis of data from all identified sources. By studying the results over time, an organization can determine, "How did we do?"

> ✓ PM examples: Total # of people with CIE; and Total # of new people with CIE

These example performance measures are obviously simple counts and easily defined by those responsible for collecting the data. However, some performance measures may be more complex,

making them open to interpretation. If this is the case in your organization, you may want to consider use of a data dictionary.

Part #1: QM Plan: Data Dictionary

If you "Google" the term, you will see a number of different definitions and examples of a data dictionary, many of which are used by those in the information technology field. In ODP, we think of a **data dictionary** as a QM "PM road map" that keeps users on track to *consistently* and *accurately* collect, interpret, and analyze data.

Content of a data dictionary can be limited or expansive, depending on an organization's complexity and/or identified needs. What you see in the table below are ten (10) minimal elements that ODP recommends for inclusion in a data dictionary.

Performance Measure (PM)	Measure Description or Rationale for Data Use	PM Numerator "*Top part of the fraction*" Parts of the whole that meet identified criteria being measured.	PM Denominator "*Bottom part of the fraction*" The whole being measured. Include exclusions, if applicable.	Operational Definition: How to measure a certain variable or how to define a certain term to assure consistency in data collection and data analysis.	Additional Notes Regarding Data Collection/ Analysis	Data Source	Target Objective	Person: *Data Collection and Maintenance*	Person: *Reports PM Findings and Analysis to Identified Audience*
PM #1									
PM #2									

10 Minimal Elements

The goal is to make sure your data-related processes are performed in a consistent, accurate manner, so you'll want to ensure that staff in your organization, especially those who play a role in data collection, interpretation/ analysis, and reporting processes, are familiar with data dictionary contents.

⭐ **Remember:** Data collected and interpreted differently within an organization, is data that cannot be used to make meaningful decisions.

Part #1: QM Plan: Data Sources

Once you determine what it is you are going to measure, consider the type of data that would best inform the measure and identify the data source in your QM plan. A **data source** is the location where data originates and/or is stored, according to specific requirements that aim to ensure reliability and validity of the data.

To determine the best data source for your improvement efforts you should ask:

1) Do the data currently exist?

2) If yes:

- ✓ Are they accessible, accurate, valid and reliable?
- ✓ Who "owns" the data?
- ✓ How can the data be best collected/documented?

If the answer to question number 1 is "no," then it likely means a data source needs to be developed. An entity may not have the resources to develop a complex database however, many times a simple Excel spreadsheet will suffice. Development of any type of new data source would become one of the first activities in the QM plan's action plan, discussed a little later in this handbook.

Here are some data sources to consider:

- Formal ODP databases (e.g., HCSIS, EIM, PROMISe)

- Entity-developed databases

- Spreadsheets

- Checklists

- Individuals' records

- Logs

Part #1: QM Plan: Frequency

"**Frequency**" specifies how often data are *collected* and then *reported* and these elements should also be included on your QM plan. The availability of the data and its accessibility will influence when you collect it, but monthly is recommended as a best practice. In some cases, the data may be available in real time, in other cases, you may decide to retrieve the data on a specific date of the month, or the same day every month – like the third Thursday, etc. Data retrieval needs to be standardized for reporting purposes to assure consistency and comparability.

While data are collected on a more frequent basis, frequency of reporting is also critical for summarizing and sharing progress toward achieving goals and desired outcomes to an oversight group. A *reporting calendar* is often developed and shared to establish the *frequency of reporting* for leaders, managers, responsible parties, and staff, which is recommended to be on a quarterly basis as a best practice.

Part #1: QM Plan: Responsible Person

Lastly, a responsible person should be included on your QM plan. A **responsible person** refers to the title of the person in your organization who is ultimately responsible for managing or coordinating the activities that will lead to the achievement of the goal and desired outcome, including periodic monitoring, analysis and reporting of performance. The most appropriate responsible person for an improvement project, is usually the person who has the expertise and authority to implement identified/needed changes and is thus held accountable by management for completion of identified activities.

- ✓ For example: "AE Employment Lead" might be a good responsible person to use for the CIE examples that we have been using throughout the QM plan development discussion up to this point.

*NOTE: In most cases, the responsible person will not be a Quality Manager. Instead, a Quality Manager is expected to collaborate with QI team members through use of targeted quality management tools, supports and guidance.

Part #1: QM Plan: Example

In the example below, the QM plan components were entered into our QM plan template. Note the simplicity of the document, which allows the reader to clearly understand the goal and the other components' relationship to it. Also note that the goal, outcome statement, target objective and performance measures are person-centered, with planned outcomes having a direct, positive impact on individuals.

Quality Management Plan			
Entity Name:	ABC AE	**Year:**	FY 18-19
Focus Area:	Participant-Centered Service Planning and Delivery		
Goal	**Outcome**	**Target Objective**	**Performance Measures/ Data Source(s)/ Frequency/Responsible Person**
People are engaged and participating in their community	People work in Community Integrated Employment (CIE)	Increase # of people working in CIE by 20% to 103 by June 30, 2019. Baseline: FY 17/18 = 86	**Performance measures**: Total # of people with CIE Total # of new people with CIE **Data Source(s)**: SCO Report **Frequency**: Data collected monthly, reported quarterly. **Responsible person**: AE Employment Lead

It is possible for a QM plan to include more than one goal or to have more than one target objective associated with one goal or outcome. If including multiple goals/target objectives in your QM plan, please remember the importance of prioritization. Do not attempt to tackle more than you can reasonably/successfully accomplish.

Let's now segue into talking about how this QM Plan—specifically the target objective—is going to be achieved through development of an action plan.

Part #2: Action Plan

An Action Plan is an *extension of the QM plan, specifically the target objective(s)* and is an integral part in the process, if the improvement activity is going to succeed. It includes a sequence of action items/steps/activities that must be performed for the purpose of achieving the target objective(s) in the QM plan, with timeframes for completion. Additionally, an action plan functions as an assignment guide for staff tasked with outcome achievement and performance improvement and records how/when success was achieved. In summary, *action plans put the QM plan into action, help to keep it on track, and support monitoring of progress.*

 Action Plan development is part of **Step #2 in the PDCA cycle - Doing**.

Part #2: Action Plan: Example

Below is an example of an action plan populated with the items/steps/activities most likely to achieve the target objective using our examples from our QM plan, related to increasing CIE for individuals. Note that the top part of the action plan is completed using the information from the QM Plan. Also note, that the action items/steps/ activities are *listed sequentially*, meaning in order of what needs to be completed first. Steps that address data collection and analysis are high on the list and should always be included. Remember to be very specific in the action item description, as this provides guidelines/directions for staff that will carry out the activity.

The *responsible person in an action plan is not necessarily the same person identified in the QM Plan* as the responsible person. It could be, but *more often is a designated person who is most familiar with the operational function outlined* in the action item. For instance, it makes sense that the AE Data Manager mentioned in the example is responsible for aggregating and preparing all data received from the SCO Data Manager.

Keep in mind the timeframe in the QM plan for the specific target objective, then enter a realistic target date. If an action item listed is to recur at regular intervals, list the date the action is to start and add ongoing, monthly, quarterly, etc. The "status" column is filled out when progress occurs, so that progress can be reviewed and discussed, but is not yet completed in the example. The completion date is entered when that action item is completed.

Action Plan					
Entity Name: ABC AE			**Year:** FY18-19		
Focus Area:		Participant-Centered Service Planning and Delivery			
Desired Outcome:		People work in Community Integrated Employment (CIE)			
Target Objective:		Increase # of people working in CIE by 20% to 103 by June 30, 2019			
Performance Measure(s):		Total # of people with CIE; Total # of new people with CIE			
Data Source(s)		SCO Report			
Responsible Person:		AE Employment Lead			
"Name" Team members:					
Action Item		**Responsible Person**	**Target Date**	**Status**	**Completion Date**
1.	Community outreach/education meeting for local businesses about CIE—determine job availability	AE Employment Lead	5/1/18		
2.	Provide training to SCs about expectations for Pa's Employment 1st Initiative	SCO Director	5/1/18		
3.	Ensure that individuals who want to work in CIE have that goal listed in their ISP	SCO Supervisor	Starting 6/1/18 and ongoing		
4.	Determine total # of people with CIE and total # of new people with CIE	SCO Data Manager	Starting 7/1/18 and monthly		
5.	Collect data for action items 3 and 4 and submit to AE Data Manager	SCO Data Manager	Starting 7/30/18 and monthly		
6.	Aggregate and prepare for review all data received from SCO Data Manager	AE Data Manager	Starting 8/1/18 and monthly		
7.	Review and analyze data	QI Team	Starting 8/30/18 and quarterly		
8.	Report data analysis/findings and recommendations to AE Board of Directors	AE Employment Lead	Starting 9/30/18 and quarterly		

Part #2: Action Plan – Monitoring

So that you don't lose momentum of a quality improvement activity and jeopardize success, the QI Team should:

- ✓ Use the action plan at team meetings to review completion of action items/steps/activities
- ✓ <u>React</u> quickly if:
    - ▪ Action items/steps/activities are not being implemented according to the action plan
    - ▪ It becomes clear that identified action items will not generate the desired outcome and revision of the action plan is needed

To summarize, the QI Team should repeat/continue with successful activities and revise or discontinue unsuccessful ones.

L. <u>REPORTING YOUR PROGRESS</u>

So far in the *4-step, Plan-Do-Check-Act (PDCA) cycle*, we have reviewed how to complete *Step #1 – Planning*, by writing a QM Plan and a supporting Action Plan and *Step #2 – Doing* has been accomplished with the implementation of the Action Plan. Next, we move on to *Step #3 - Checking*, which involves checking the effect of improvement items/steps/activities through data collection and analysis, summarizing lessons learned, and reporting your progress. In other words, you will determine the current status of your efforts, whether you are succeeding or failing, and report the status.

Step #3 in the PDCA cycle – Checking.

Collecting the Data

Previously, we touched generally on data collection, analysis, and visualization and about how important each is to any improvement project. Now, we are going to delve deeper into these topics and apply what we learned towards development of a quarterly progress report.

Determining the current status of your efforts requires that you start with collecting your data. As your QI team collects and monitors data, it's important to keep in mind that the first 6-8 weeks can be a crucial "window of opportunity" to address any problems, before they become embedded in routines, and thus much harder to fix.

Preliminary Data Analysis & Findings

Once your data is collected and organized, you can begin some preliminary data analysis. A high-level, initial look at the data should first assess whether there are enough data points to *consider trends, shifts, patterns, and cycles* from which decisions to act can be based. You'll recall that there must be a *minimum number of data points (generally at least 10 for statistical significance)* for different types of graphs to help you answer different types of questions. Taking action on the basis of a lesser amount of data points is not recommended however, if a drastic change does occur, it is best to explore it immediately upon discovery.

Checking data and asking, "Do the data indicate preliminary achievement of the target objective?" should occur early in the process, *usually 3-6 months into a 12-month plan cycle,* so that actions to modify strategy can occur in time to have an impact on results.

It cannot be emphasized enough that *data analysis is not just about collecting numbers; it's about using them.* Organizing and thinking about the data is key to understanding whether your improvement activities are, in fact, helping your organization achieve desired outcomes.

The first step in analysis is to determine the **findings,** or in other words, *the data results without any analysis or interpretation*. Findings are just simple statements about the count, the timeframe and when these counts were noted. Any data retrieved is generally a snapshot at the time it is retrieved, and this should be noted. Analysis and interpretation help to apply meaning to the numbers and occur when we start to put the findings into context and relate them to the target objective or desired outcome.

Data Analysis: Critical Thinking

Simply put, **critical thinking** is the *process of actively analyzing to draw conclusions.* It involves being inquisitive, objective, and open-minded, as well as being skilled at self-regulation and problem-solving.

These critical thinking questions should be applied when reviewing and analyzing data findings:

- ✓ Who?
- ✓ What?
- ✓ When?
- ✓ Where?
- ✓ Why? Why? Why?...
- ✓ How?
- ✓ How much?

When reviewing findings, QI Team members need to have inquiring minds and be creative and innovative in their approach. They should look for possible connections (connect the dots) and ask "Why?" more than once.

When analyzing the data and interpreting the findings within the context of the problem, ask questions surrounding any conclusions that can be drawn. Some of these questions include:

<u>What conclusions can be drawn about the:</u>

- ✓ Corrective actions or improvement activities implemented?
- ✓ Appropriateness of performance measures?
- ✓ Accuracy, reliability & validity of the data?
- ✓ Desired outcome?
- ✓ Process?
- ✓ System overall?

This list of questions is not exhaustive and should be specific to the issue at hand. Additional questions may arise as the QI team conducts its analysis.

When drawing conclusions, *be alert to the possibility of misinterpreting the data.* If there are any data shortcomings, such as a small sample, or not enough data points to draw conclusions, or confounding variables that may need to be explored, these should be pointed out. They could possibly lead to modifications in the action plan or provide additional avenues of discovery.

The information you collect through critical thinking exercises during your analysis and interpretation should then be used for writing the findings and analysis section of your report. To the extent possible, each of the basic critical thinking questions should be answered within the narrative of your quarterly report. Once the analysis is complete, you're ready to write and present your report.

QM Quarterly Report: Template

The template below was developed by ODP for use when developing a QM quarterly report. Entities can use this template or develop one of their own, provided all of the displayed components are included.

Entity Quality Management Quarterly Report		
Review and analysis of progress made to date to achieve QM Plan objectives.		
Entity Name:	**Date:**	**Submitted by:**
Focus Area and Desired Outcome:		
Objective:		
Performance Measures	**Findings and Analysis** *Display data and provide data analysis where available. Include barriers to achievement of objectives where obstacles exist.*	**Plan-Do-Check-Act (PDCA) Cycle Follow-up** *Describe follow-up activities including how barriers, if present, will be addressed.*
Describe how key stakeholders are involved in the achievement of QM Plan objectives.		
Describe how, and on what schedule, progress in implementing the Entity QM Plan is reported to the oversight body.		

When writing the report, keep in mind that more is not necessarily better. A lengthy report doesn't always convey a better understanding. *Reports should be short enough so that people will actually read them yet comprehensive enough to convey current status and next steps.* Just be sure to answer the who, what, when, where, why and how questions that were previously discussed.

A QM quarterly data report should include these key components:

❑ **Performance Measures** being tracked with identified numerators and denominators, as applicable.

❑ **"Findings and Analysis"** section where your data findings, visualization and analysis belong, as well as a description of identified barriers encountered.

❑ Display and analyze data for the current quarter, along with historical data when available.

   ▪ For example, your 2nd quarter report should also include 1st quarter historical data, your 3rd quarter report should include 2nd and 1st quarter historical data, and so on.

❑ Written analysis should include a to-the-point explanation about what the data mean.

❑ Ensure to provide continuity between reports by addressing the status of actions taken that are listed in the prior report's "Follow-up" (PDCA) section, as applicable.

❑ **"Follow-up" (PDCA)** section should describe how barriers to achievement of your target objective will be addressed.

❑ **Descriptions** of how:

   ❑ Stakeholders are involved in the QM Plan process, AND

   ❑ Progress will be reported to an oversight body (e.g., Board of Directors, County Commissioners, etc.), and on what schedule

As indicated above in the Findings and Analysis section, data visualization is one of the key components of a QM quarterly report. Displaying data visualizations serves multiple purposes, including:

❖ Clear and accurate conveyance of data and information
❖ Showing data patterns and trends
❖ Minimizing the likelihood of misrepresenting data, and
❖ Helping people learn more effectively through visual images, rather than just words

How you choose to display your data depends on what you are trying to say. Previously you were introduced to a number of different data display options and it may be helpful for you to refer back to that section for a more in-depth review of the topic. Whichever display option you select, remember to keep it simple and understandable for the audience.

A "good," *usable* report is one that includes the data you need and one that facilitates making vital decisions based upon that data. It is accurate, complete, relevant, visually interesting and timely.

⭐ <u>**Remember:**</u>

- ✓ Best practice calls for reporting on a *quarterly* basis AND
- ✓ Be prepared to share your reports with ODP or AE leads during QA&I reviews, as *it is through the reporting process that you measure and document progress towards achieving identified person-centered goals and objectives, on your QM plan.*

QM Quarterly Report: Example

Below is a completed example of a QM Quarterly Report related to continuing our improvement project example to increase the number of people with CIE. It includes all key components. In our analysis, we point out that there is not an exact correlation between the total # of people working in CIE (94) and the total # of *new* people working in CIE (12) as of December 31st. Coming up we will further explain why counting is done a little differently when people are the unit of analysis. In the last two rows of our report, we entered example information related to key stakeholder involvement and how progress in achieving the target objective is reported to an entity oversight group.

QM Quarterly/Annual Report **Review and analysis of progress made to date to achieve QM Plan objectives.**		
Entity Name: ABC AE	**Date:** 12/31/18	**Submitted by:** AE Employment Lead
Focus Area and Desired Outcome: Participant-Centered Service Planning and Delivery; People work in CIE		
Objective: Increase # of people working in CIE by 20% to 103 by June 30, 2019		

Performance Measures	*Findings and Analysis*	*Plan-Do-Check-Act (PDCA) Cycle Follow-up*
# of people with CIE # of *new* people w/ CIE	**Total # of people with CIE, FY 18-19 – Quarter 2 = 94** Data reflects an increase of 8 people working in CIE by mid-FY. **# of people working in CIE** 100 90 80 86 87 89 92 92 94 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 **Total # of *new* people with CIE, FY 18-19 – Quarter 2 = 12** Data reflects 12 new people working in CIE by mid-FY. **# of new people working in CIE** 5 0 0 2 4 3 0 3 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 *Data Source:* SCO Report **Analysis:** There is not an exact correlation between the total # of people working in CIE (94) and the total # of new people working in CIE (12). The first chart shows a steady increase in the number of people working; the second chart does not show the same trend. <u>For example:</u> There were 86 people working in CIE as of July 31st. 2 new people started working in August, but by the end of the month, the total # working was increased by only 1 person. As of September 30th, only 2 additional people were working, even though 4 new people were hired. By tracking the data similarly for the first 6 months of the fiscal year, the projected YTD Target Objective = 102 (94 + 8). **Review of agency records indicate that 3 people retired at some point during the first 6 months of the fiscal year.** The possibility of retirement was not considered when the original target objective of 103 was determined.	The QI Employment Team will request data from SCO John Smith on the number of anticipated retirements for the next 6 months.

Describe how key stakeholders are involved in the achievement of QM Plan objectives. Quarterly meetings with stakeholders will occur, with minutes posted to the AE website.
Describe how, and on what schedule, progress in implementing the Entity QM Plan is reported to the oversight body. AE Employment Lead will be reporting this information quarterly to the AE Board of Directors.

Unit of Analysis: People

In the example above, the unit of analysis—or the "who" we are analyzing—is people. More specifically, we are counting the number of **unique, unduplicated** people working in CIE, as of a certain date. This count is determined differently than other counting, like number of medication errors, restraints, etc., where the unit of analysis is the "what" we are analyzing.

In our analysis, we see that 94 represents the total number of people with CIE, taking into consideration the turnover of people who entered *and* left the workforce during the first 6 months of the fiscal year. The total number of people who entered CIE at some point during the same time period was 12. Only 8 of the 12 newly employed people were still employed as of December 31st. Explaining in more detail, 86 people were working in CIE as of July 31st and 2 new people started working in August, but by the end of the month, the total # working was increased by only 1 person. As of September 30th, only 2 additional people were working, even though 4 new people were hired and so on. Before completing this analysis on people, we needed to take specific information into consideration such as:

- ✓ Operational definitions:

    - Unique, unduplicated – means count each person one time only

    - "New" - a newly hired employee is someone who either hasn't previously been employed in CIE by an employer, or was formerly hired by an employer, but has been separated from that prior employment for at least 60 consecutive days

- ✓ Never assume the same people are working from one month to the next - some of them are the same but some new people may have started, and some may have ended their CIE employment during the time period. For this reason, it is important to track the number of new people in CIE separately. *This is also a great example for why you should monitor your data monthly—it's much easier to see what happened—although you might only report it quarterly.*

Projecting Year-to-Date (YTD): Unit of Analysis - People

Part of analyzing your data should involve checking to see if you are on track to meet your target objective (TO), by your target date and including this information in your quarterly report. You can do this by projecting (estimating) what your year-to-date (YTD) total would be, based on continued performance at the current level, at the time that you are checking it. Projecting your YTD allows you to look at where you started, where you are, and where you want to be, and then adjust your action plan and activities in a timely manner in hopes of impacting performance to reach your TO by your target date.

As explained previously related to our quarterly report example, only 8 of 12 *newly* employed people were still employed in CIE, after 6 months (mid-fiscal year). Based on this information, we projected an additional 8 (not 12) people would be working in CIE by the end of the fiscal year (our target date), resulting in a projected YTD of 102. That is 1 less person than we were hoping for in our example TO, and this was addressed in the Findings/ Analysis and PDCA sections of the quarterly report example. This table below helps us to visualize how this data was tracked and projected in our example, with the unit of analysis being people. Again, this is a great example for why you should monitor your data monthly—it's much easier to see what happened—although you might only report it quarterly.

Jul 18	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Projected YTD
86	+1 = 87	+2 = 89	+3 = 92	+0 = 92	+2 = 94							94 + 8 = 102

Projecting Year-to-Date (YTD): Unit of Analysis - Things

When the unit of analysis is *not* people, but rather counts of things (the "what"), the YTD is determined differently. Using an example of medication errors (see table below) with:

- A FY17-18 baseline of 210 errors

- A data set of 23, 12, 14, 14, and 19 for the first 5 months and

- A target objective (TO) to reduce the number of errors by 20% (to 168) by June 30, 2019

Jul 18	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	YTD (update monthly)
23	12	14	14	19								82

You would follow these steps to determine the projected YTD:

- ❑ **Step 1:** Divide the total number of med errors (current YTD) by the number of months collected so far. In our example, that would be 82/5 = 16.4

- ❑ **Step 2:** Multiply the result from Step 1 by 12 to determine projected YTD. In our example, that would be 16.4 x 12 = 196.8

- ❑ **Step 3:** Compare projected YTD total with TO to determine whether performance is on track; in our example, data indicate that we are <u>not</u> on track, since the projected YTD of 197 (rounded because you can't have a .8 when counting medication errors) exceeds our TO of 168 by 29 medication errors

Based on the projected YTD, you would want to review the current action plan to determine why strategies may not be working, make revisions, implement changes timely to try to impact performance before the end of the fiscal year, and address all of this in the Findings/Analysis and PDCA sections of the quarterly report.

Taking Action

We've now talked about data collection, analysis, visualization, and reporting and discussed that one important part of reporting is the inclusion of follow-up, or taking action based on what you've learned so far. This is *Step #4 in the PDCA cycle - Acting*. At this point, you know how implemented

improvement activities are working, and what, or if, any barriers exist. *Based on this information, you can now take action by incorporating plans to:*

- ✓ Continue successful improvement practices

- ✓ Revise or discontinue the unsuccessful activities and/or

- ✓ Make recommendations for solutions to overcome identified barriers

Step #4 in the PDCA cycle – Acting.

After you've developed a QM Plan, developed and implemented an associated Action Plan, written your quarterly report for your oversight body, and taken action based on the information you have learned, what's next? Simply stated, you would continue to monitor progress in achieving your QM Plan target objective(s) through ongoing implementation of the PDCA cycle. That means you should continue to collect and analyze data, at established intervals, monitor action plan activities as appropriate, and complete reports as scheduled.

Updating QM/Action Plans

As you continue to implement the PDCA cycle *ongoingly*, you should be considering your baseline data and target objectives to determine whether target objectives are being achieved, should be continued, revised or discontinued *in the next QM Plan cycle*, and if new target objectives should be developed.

⭐ **Remember:**

- ✓ A QM plan *does not change* over the course of its current *lifecycle*, which is underlined recommended, per best practice, to be a fiscal year

✓ While a QM Plan's Action Plan *should be continually modified and updated* based on findings and lessons learned, as you regularly monitor and evaluate information gleaned from your data being collected

The decision to discontinue a target objective should only be made after review and discussion of available performance data. If you plan to discontinue any target objective(s), you should provide *written rationale that includes the performance data and describes how you will monitor to ensure level of performance is sustained long-term, otherwise known as continuous quality improvement (CQI).*

Other things to think about as you move into the next QM planning cycle are **lessons learned**, which are the *sum of knowledge gained by your experiences.* You should consider:

✓ Positive and negative lessons
✓ Successful and unsuccessful actions, including consequences and surprises
✓ Integration into future QM planning

Continue the QM Planning Cycle or Disband the Team?

Based on your assessment of your current QM/Action Plan—reflecting on lessons learned and determining key target objectives for moving forward, you are now ready to embark on another QM planning cycle. Remember, this QM/Action plan process, which embeds the PDCA cycle, is the method you will use for measuring and influencing quality in your organization and throughout the ODP system, for the purpose of better outcomes for those served, and ultimately everyday lives for them.

A QI Team, unlike an Advisory Board, Executive Leadership or a Committee, does not go on indefinitely. Usually, there is a beginning point and an end point. But how do you know where that end point is? And who decides?

Generally, a QI Team disbands when:

- ✓ The purpose in the original guiding document has been fulfilled
- ✓ All associated work of the QI Team has been completed
- ✓ Recommendations have been made by the team and adopted, or not, by leadership and
- ✓ Policy has been developed to embed successful strategies into business operations.

After these 4 tasks have been accomplished, then the QI Team should make the recommendation to disband to leadership, as they ultimately make the decision.

It should be noted that there are some circumstances when, for a variety of reasons, leadership may want to continue the team. For example, QI teams are generally focused on achieving a process improvement, or a specific desired result, but oftentimes, the process being focused on is just one part of a system being developed or improved upon. A QI Team that has hit its stride, understands QM methodology, and has demonstrated success, is now an asset to the organization. Leadership may want to take advantage of that and instead of disbanding the team, they might choose to utilize them to address another process within the same system or use their experience to design a new system with quality built in from the start.

Regardless of whether leadership decides to disband the QI Team or continue its work with another focus, it's time to **celebrate!** The work of quality improvement has been done using QM concepts, methods and tools to make evidence-based decisions through consensus, and embed "Lessons Learned," in policy and daily tasks to assure improvement is sustained. In other words...

DON'T FORGET TO CELEBRATE!

QUALITY is now built-in and is a way of doing business – by everyone in the organization!

BE A CQI CHAMPION!

As an ODP CQI champion, you can…

- ❖ Show off your expertise by:
    - ✓ *Collecting and organizing understandable data* to inform decision making;
    - ✓ *Strategizing actions* to achieve improvement for <u>person-centered</u> outcomes;
    - ✓ *Reporting progress* in achieving goals and objectives; and
    - ✓ *Communicating the results* of your work throughout your entity.
- ❖ Create and *maintain a culture of CQI* by being a role model for positive change and fostering communication, collaboration and teamwork;
- ❖ *Stay updated* on ODP priorities and requirements for business partners and *communicate* recent updates to leadership and staff;
- ❖ Make recommendations to leadership, including convening, facilitating and participating in QI teams to achieve improvements; and
- ❖ Work with staff to implement new initiatives that make use of data, performance measures, and target objectives.

| | **Module 103 – Knowledge Check** |
	See Appendix E for the Answer Key!
#1	"Reduce the annual baseline of restraints by 5% by 6-30-2021" is an example of a _____ on a QM plan:
	a) Goal
	b) Outcome
	c) Target objective
	d) Data Source
#2	The acronym S-M-A-R-T stands for:
	a) Small, Measurable, Achievable, Real, Timely
	b) Significant, Meaningful, Attainable, Right-on, Target
	c) Specific, Measurable, Attainable, Realistic, Time-bound
#3	It doesn't matter if you collect and interpret data in the same way. Data is data and can be used to make decisions, no matter how it is collected/interpreted. **TRUE or FALSE**
#4	Best practice and ODP recommendations endorse monthly collection of data and quarterly reporting to summarize and share progress. **TRUE or FALSE**
#5	The responsible person listed on a QM Plan refers to the title of the person who is ultimately responsible for managing or coordinating activities that lead to the achievement of the goal and desired outcome. **TRUE or FALSE**
#6	Implementation of action plans should be monitored only once per year by a Quality Improvement (QI) Team to determine if action items are being completed and whether or not desired outcomes and target objectives are being met. **TRUE or FALSE**
#7	When developing a data report, data discovery and visualization should be paired with a written explanation. **TRUE or FALSE**

M. GLOSSARY OF TERMS

Action Plan – An extension of the QM plan; a support document that is essentially a blueprint for how the QM plan will be implemented; describes, in detail, action items to achieve target objective(s) in the QM Plan. The action plan is a working document and should be continually modified and updated based on findings and lessons learned; serves as a status report for the QI team's completion of established action items.

Administrative Entity (AE) – A county/joinder or non-governmental entity that enters into and maintains a signed current agreement with the Department to perform administrative functions delegated by the Department, as the Department's designee, in compliance with the Department's approved Consolidated and P/FDS Waivers, Written Policies and Procedures and Departmental Decisions.

Administrative Entities (AE) Operating Agreement – The contract in which ODP identifies delegated responsibilities of AEs as they pertain to the delivery of ID/A services in Pennsylvania.

Baseline – A starting point used for comparison established by tracking an organization's performance over time, generally at least one year. It provides an objective assessment of the current level of performance.

Benchmark – A reference point for improving performance through quality improvement activities established using sustained, superior performance (and ideally a demonstrated best practice). Benchmarks can be established *internally* by *starting with the organization's baseline* and determining a realistic level of improvement to strive for, or externally by a regulatory body, or by sustained and superior performance of a similar organization/system. Benchmarks refer to where an organization/system wants to go.

Best practice – Policy/service/program/strategy/procedure established or proposed as a suitable standard for widespread adoption, as evidenced by optimal results of expert research and experience.

Brainstorming – Spontaneous, free-flowing contribution of ideas from all members of a group for the purpose of problem-solving.

Centers for Medicare and Medicaid Services (CMS) – Agency within the U.S. Department of Health and Human Services (HHS) that administers the nation's major healthcare programs.

Consensus – Occurs when each member of a group/team agrees with a decision, in contrast to voting or compromising where someone must give up something while other members may not.

Continuous Quality Improvement (CQI) – Process that continually monitors program performance and intervenes when and where indicated.

Critical Thinking – Process of actively analyzing to make an informed decision; should include asking who, what, when, where, how/how much and why, more than once.

Data – Refers to uninterpreted observations, facts or material collected as a result of surveys, assessments or general documentation activities.

Data Dictionary – ODP's data dictionary is a document that serves as a QM performance measure (PM) road map to keep users on track to collect, interpret, and analyze data consistently and accurately. It includes 10 elements towards this purpose including: PM, PM description, PM numerator, PM denominator, operational definition, data source, target objective (TO), responsible persons for data collection, maintenance, analysis, interpretation, and reporting, and any additional notes related to data collection/analysis.

Data Source – location where data originates and/or is stored, according to specific requirements that aim to ensure reliability and validity of the data.

Data visualization – Using tools like graphs and charts to graphically represent data and information.

DDRI Model – Describes quality management functions as a continuous cycle of **Design, Discovery, Remediation** and **Improvement** within the HCBS Framework, and outlines steps that ODP takes to achieve compliance in each of its program areas. **Design** refers to how the state will monitor a waiver program and make improvements when systemic problems are detected; **Discovery** describes the state's monitoring processes used for timely detection of deviations from program design; **Remediation** involves implementation of strategies to fix each quality problem when it is discovered; and **Improvement** requires implementation of long-term solutions, or improvement strategies to address systemic problems identified.

Deming's "14 Points" – Management philosophy that stresses the importance of striving for constant improvement by infusing positive leadership and management principles into the organization and recognizing that employees are an organization's most valuable assets. The philosophy emphasizes

that quality improvement is achieved when empowered employees focus on improving their own job performance, and management focus is on problems related to processes or systems.

Deming's 85/15 Theory – States that 85% of problems are process or system related, and 15% are traceable to individuals.

Everyday Lives (EDL) Values in Action: My Life, My Way – Statement of the values people with disabilities consider important, created by people with disabilities.

EDL Values in Action: What Families Value – Statement of values, created by families, that describes what is important to families who want an everyday life for their family member.

Findings – Data results without any analysis or interpretation; simple statements about the count, the timeframe and when counts were noted. The first step in analysis is to determine findings.

Fitness for Use – Concept used to define quality of a product/service; originally described by Juran as an essential requirement of a product to meet the needs of members of society who will be using it; representing freedom from deficiencies and customer dissatisfaction.

FOCUS – An acronym for a quality improvement approach that uses teamwork to target a process, directly connects to the improvement phase of the DDRI model and should come prior to using the PDCA cycle. The acronym stands for: **Find** a process to improve upon; **Organize** a team that understands the process; **Clarify** current knowledge of the process; **Understand** root causes of variations in the process; and **Select** a strategy for improving the process (and **Start** the PDCA cycle).

Forming–Storming–Norming–Performing – Tuckman's model of group development indicating that the stages of forming, storming, norming and performing are all inevitable and necessary for a group/team to grow, face challenges, tackle problems, discover solutions, and deliver results. The stage a team is in is ultimately determined by what is occurring during team meetings and discussions.

Frequency – Refers to how often data is collected and at what intervals progress towards achieving QM plan goals is reported to an oversight body. ODP recommends monthly collection and quarterly reporting as best practices.

Goal Statement – Written statement, on a QM plan, that *sets the direction for all activities* by using broad/general terms in the present tense, but describing a desired ideal, future accomplishment, not tasks or activities.

Home and Community Based Services (HCBS) Quality Framework – Developed by CMS in partnership with other organizations to provide a common frame of reference in support of productive dialogue among all parties who have a stake in the quality of community services and supports for persons and individuals with disabilities.

IM4Q "consideration" – A concern raised during the IM4Q survey process about the person being interviewed that requires referral by the survey team to a local county program for appropriate follow-up. Often referred to as "closing the loop."

Independent Monitoring for Quality (IM4Q) survey process – Annual information-gathering method used to understand how satisfied people with an intellectual or developmental disability are with their lives, relative to the ODP service system. Responses are aggregated and shared annually.

Information – Refers to data transformed through analysis and interpretation into a form useful for decision-making.

Information and Sharing Advisory Committee (ISAC) – ODP's stakeholder Quality Council formed in 2014 to evaluate best practices and prioritize the most important steps for ODP to take to improve system delivery. Results of their efforts include the publication in 2016 of *Everyday Lives: Values in Action* and 14 ISAC Recommendations, or focus areas, built on the values, goals, expectations, and aspirations of people with disabilities and their families.

Information Management – System or set of processes, specifically designed and planned for the collection, organization, and use of information that has value related to the organization's need to make decisions based on fact or evidence.

Juran Management Theory – Emphasizes a "project approach" to quality management, the key role of top organizational leadership, the importance of leaning on each other to succeed (management as a whole), and the significant impact of human factors on quality such as resistance to change, considered to be the root cause of quality issues.

Juran Quality Trilogy – A means for managing quality that includes the following processes: Quality Planning, the design stage, Quality Control, where ongoing inspections of processes occur to ensure that its under control, and Quality Improvement, where collaborative team efforts to study and improve existing processes occurs.

Learning Organization – An organization that collects and analyzes data about its activities and the results of those activities, including the *quality* of their results and customer satisfaction, then uses that information, on a routine and cyclical basis, to improve its business operations.

Lessons Learned – The sum of knowledge gained by experiences; considers positive and negative lessons, successful and unsuccessful actions, consequences and surprises, and integration into future QM panning.

ODP's QM Strategy Bulletin – ODP's document founded on the mission, vision, and values of ODP and created for the purpose of communicating ODP's QM goals and its strategy for continuously improving services and supports through quality planning, quality assurance, and quality improvement. This document provides a road map for system QM that establishes standardized structures and processes for implementing and maintaining the strategy.

Outcome Statement – A written statement, on a QM plan, that describes a desired result that represents a change in status for individuals, *within the ideal future accomplishment described in the goal statement*. The outcome statement drives the target objective(s) on the QM plan.

Pareto Principle (80/20 rule) – The quality concept that 80% of outcomes/outputs result from 20% of all causes/inputs for any given event.

PDCA – Cyclical quality control/improvement method consisting of 4 continuous steps—Plan, Do, Check, Act. The continuous feedback loop allows managers to identify and change parts of a process that need improvement. Applied specifically in the ODP system, **P (Plan)** involves developing a quality management (QM) plan with an action plan outlining how improvement will be accomplished; **D (Do)** involves implementation of the action plan; **C (Check)** involves assessing the impact of the action plan by collecting and analyzing data; and **A (Act)** involves taking action to sustain the improvement gains that have been realized or, to continue the improvement process by revising or discontinuing unsuccessful improvement activities, and making recommendations for solutions to overcome identified barriers.

Performance Measures (PMs) – Quantifiable measurements, such as a simple number, count, or percentage, that reflect critical success factors of an organization; informed through collection and analysis of data from all identified sources.

Person-centered – Focused on the person, what they can do, what their needs are, and what they want. ODP expects entities to engage in efforts, or strategies, that *directly improve* the lives of individuals being served (e.g., health and safety, communication, employment, etc.). In ODP QM, you'll experience this term being used related to person-centered performance measures, data, information, and outcomes ("people outcomes").

Promising practice – Policy/service/program/strategy/procedure, identified by experts, that shows potential for developing into a best practice, but that has not yet been formally evaluated.

Qualitative Data – Data that *describes* characteristics/qualities/attributes that can be collected using surveys, interviews, and observations. Also referred to as *categorical, nominal* or *attributes data*.

Quality Assessment and Improvement (QA&I) process – The oversight process implemented by ODP in 2017 to follow an individual's experience throughout the system by conducting a quality review of all AEs, SCOs and providers, via a 3-year cycle. Includes individual interviews, self-assessments and full reviews, completed onsite and via desk reviews.

Quality Assurance (QA) – Measuring quality as compliance with minimum standards, retrospectively, and as determined by regulators or payors.

Quality improvement (QI) – Complementary to QA activities, uses a systematic, prospective/proactive approach, infusing principles of continuous learning in activities, and includes qualitative measures that align with subjective customer expectations.

Quality Improvement (QI) Team – A group organized to work together to accomplish a specific improvement goal using the tools and techniques of quality management.

Quality Management (QM) – Active oversight of all quality assurance and quality improvement activities required to achieve and maintain a desired level of excellence.

Quality Management Plan – A document that describes, in broad terms, the long-term plan for moving an organization forward; speaks to an organization's mission and vision through identifying improvement priorities; and does not change over the course of its current lifecycle, which is recommended, per best practice, to be a fiscal year.

Quantitative Data – Data that is *measurable* and each value in the data set has a unique numerical value. Also referred to as *continuous data.*

Responsible Person – In a **QM Plan**—refers to the title of the person in the organization who is ultimately responsible for managing or coordinating the activities that will lead to the achievement of the goal and desired outcome, including the periodic monitoring, analysis and reporting of performance; in an **Action Plan—**not necessarily the person identified in the QM Plan, but could be. Is most often the title of a designated person who is familiar with the operational function outlined in a particular action item.

Sample Size – A subset of the sample universe (entire population) that you are trying to learn something about. Statistically represented as the "n."

Sample Universe – The *entire population* from which a sample is drawn. Statistically represented as the "N."

Sampling – The process of selecting a subset from a population, for the purpose of accurately estimating characteristics of the entire population.

S-M-A-R-T– Acronym that stands for: **S**pecific, **M**easurable, **A**ttainable, **R**ealistic and within a **T**imeframe. Used to define required criteria for successful development of target objectives.

Structure -> Process -> Outcomes – Donabedian's model of evaluation that provides a framework for visualizing connections between structures we establish, actions we take, and the outcomes we achieve.

Target Objective (TO) – In an ODP QM plan, a statement that describes where you want to go (what you want to happen), in precise, quantifiable terms (by how much and by when), using S-M-A-R-T guidelines, baselines and benchmarks. It describes how the outcome and goal, at least in part, will be achieved, through specific and measurable action.

"Unique, Unduplicated" – Term that refers to counting each person only once when the unit of analysis is people (the "who").

Unit of Analysis – The "who" or the "what" that is being analyzed (e.g., individuals/people, entities such as AEs, SCOs, Providers, medication errors, etc.).

pennsylvania
DEPARTMENT OF HUMAN SERVICES

OFFICE OF DEVELOPMENTAL PROGRAMS BULLETIN

ISSUE DATE	EFFECTIVE DATE	NUMBER
06/20/2017	06/20/2017	00-17-01

SUBJECT	BY
Quality Management Strategy of the Office of Developmental Programs	Nancy Thaler, Deputy Secretary for Developmental Programs

SCOPE:
Administrative Entities, County Mental Health/Intellectual Disability (MH/ID) Programs
Public and Private ICFs/ID
Supports Coordination Organizations
Providers of Intellectual Disability and Autism Services
Individuals and Families served by ODP
All interested parties

PURPOSE:

The purpose of this bulletin is to distribute the Office of Developmental Programs' (ODP) Quality Management (QM) Strategy. The QM Strategy is founded on the mission, vision, and values of ODP and establishes standardized structure and process for implementing and maintaining the QM Strategy in all ODP's programs.

BACKGROUND:

ODP's QM Strategy is a comprehensive approach that includes quality planning, quality assurance, and quality improvement/enhancement. This QM Strategy is developed and implemented to:
- Offer the highest quality services that promote choice and control in individuals' everyday lives.
- Safeguard the health and safety of individuals receiving services.
- Implement promising practices.
- Ensure program compliance with regulations.

COMMENTS AND QUESTIONS REGARDING THIS BULLETIN SHOULD BE DIRECTED TO:
The appropriate ODP Regional Program Office

Visit the Office of Developmental Programs Web site at
http://www.dhs.pa.gov/learnaboutdhs/dhsorganization/officeofdevelopmentalprograms/

Mission

The mission of ODP is to support Pennsylvanians with developmental disabilities to achieve greater independence, choice and opportunity in their lives.

Vision

Our vision is to continuously improve an effective system of accessible services and supports that are flexible, innovative, and person-centered.

Scope

ODP serves individuals with an intellectual disability and/or Autism Spectrum Disorders (autism).

Values

Everyday Lives: Values in Action, a publication developed in 2016 in collaboration with the Information Sharing and Advisory Committee (ISAC), an ongoing committee of stakeholders ODP formed in November 2014 to deliberate with and advise the ODP, builds on the list of *Everyday Lives* principles that has guided the service system since its publication in 1991.

Deeply rooted in the concept of self-determination, *Everyday Lives* promotes the belief that, with the support of family and friends, people with disabilities can and should decide how to live their lives.
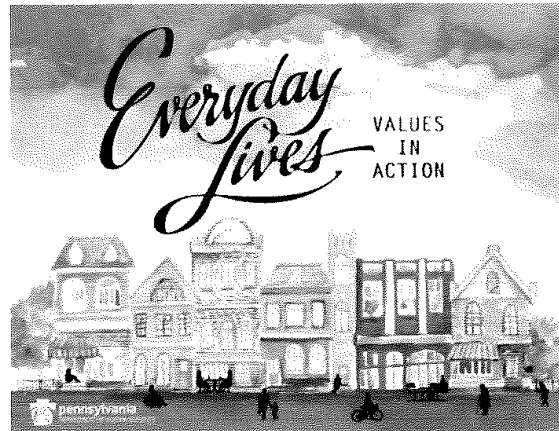
Everyday Lives: Values in Action articulates what is important to people who use services and their families and makes recommendations about how the service system should increase opportunities for individuals to participate fully in their communities, better support families with

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information and connections to other families, provide individuals with more control over services, and improve the system's accountability for assuring health, safety, and positive outcomes.

Two sets of Values Statements – What is Important To People with Disabilities and To Their Families - were created by individuals with disabilities and families as they planned for the future. These values serve as the foundation for *Everyday Lives: Values in Action*.

A Statement of What is Important to People with Disabilities

Everyday Lives in Action: **My Life, My Way** – is presented in two parts. The first part of each value statement explains what the value means to people with disabilities. The second part tells the kind of support individuals with disabilities need from family, supporters, and the community to realize the values in their Everyday Lives.

Family means both those related by birth and those chosen as family; supporters means those who provide services and supports, including natural, public, and private resources; community means those people we interact with as we live, work, play, and worship. These values *should guide every decision made by, for, and about people with an intellectual disability and/or autism.*

Everyday Lives in Action: **My Life, My Way**
Control – I have control over all areas of my life. My family, supporters, and community know these are my decisions and work with me to achieve greater control.
Choice – I decide everything about my life. My family, supporters, and community help me learn about opportunities and together we make them happen.
Freedom – I have the same rights as all other members of the community and I can fully use them. My family, supporters, and community respect my rights.
Stability – Changes to my life are made only with my permission and input. My family, supporters, and community do "nothing about me without me." They plan with me to meet my needs, now and for the future.
Health and Safety – I am healthy and safe in all areas of my life. I, my family, supporters, and community balance health, safety, and risk according to my wants and needs.
Connected – I am a full member of my community with respect, dignity and status. My family, supporters, and community know me as a person, welcome and accept me.
Responsibility – I am dependable and honor my commitments. I keep my word. My family, supporters, and community are honest and fair, do what they're supposed to do, and keep their word.
Communication – I am listened to and understood; my input is valued. My family, supporters, and community listen to me and communicate in ways that work for me.

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Success – I am the best I can be in the goals that I decide. My family, supporters, and community learn how to support me to achieve my goals.
Employment/Meaningful Contribution – I want to work and/or have other ways to contribute to my community. My family, supporters, and community support me to find and keep a real job that I like with good wages and benefits or start and run my own business, and/or volunteer the way I want in my community.
Individuality – I am respected and valued for who I am and want to be. My family, supporters, and community treat me with dignity and support me in a person-centered way.
Relationships – I decide who is in my life – friends, family, partners, neighbors, pets, and others in the community. My family, supporters, and community respect the relationships I choose and support me to form new relationships.
Partnership - I need people in my life who will honor my life's journey. My family, supporters, and community work together with me to build bridges.
Quality – I want my life my way. I, my family, supporters, and the community make sure the services I choose are proved to be of high quality.
Advocacy – I am the best person to let others know what I want and need. My family, supporters, and community listen to me and understand what I want and need, and assist me to be heard by others.

A Statement of What is Important to Families who Want an Everyday Life for their Family Member

Families embrace and envision person-centered, family-supported, values-based, everyday lives for their family members, regardless of changes in administrations, fiscal fluctuations, and unforeseeable influences. Families want these values adopted and embedded into ODP's policy and practice across the service system. By consistent consideration of the question, "Are we adhering to the values?" these value statements can be utilized to bring about meaningful and enduring systemic changes.

The Unique Role of Family – Families represent the very heart of life throughout the lifespan.
Supporting Families Throughout the Lifespan – Our families must be encouraged and supported early on in their children's lives to hope, dream and reach for the future.
Knowledge and Resources – Families want to feel strong so they can provide for and support their loved ones.
Mentoring – Families value mentoring as a strong component to informing and supporting families.
Communication – Good communication involves everyone working toward common goals, respecting one another in partnership.
Respect and Trust – Respect must be granted to all families, their values and beliefs, homes, and privacy.

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Choice and Control – Families seek freedom, on behalf of their family members, to make responsible and personal choices in all aspects of life.
Health and Safety – People should be safe at home, work, school, and in the community.
Simplicity and Flexibility – Families value a simplified and transparent system that is easy to access, understand, and navigate.
Quality and Stability – Families value quality supports and services that enable people to live everyday lives.
Collaboration – Along with self-advocates, family members must be part of the discussion, planning, and creation of every element of the service system.
Opportunity for Innovation – Families support innovative, creative approaches that can be the key to truly person-centered solutions and often offer the most cost-efficient solutions.

Values in Action: Recommendations

ISAC recommendations for *Values in Action* are built on the values, goals, expectations, and aspirations of people with disabilities and their families. The recommendations are a guide for ODP to develop policy and design programs for people with disabilities, families, providers of service, and advocates who support people to have an everyday life.

1. Assure Effective Communication	7. Develop and Support Qualified Staff
2. Promote Self-Direction, Choice, and Control	8. Simplify the System
3. Increase Employment	9. Improve Quality
4. Support Families throughout the Lifespan	10. Expand Options for Community Living
5. Promote Health, Wellness, and Safety	11. Increase Community Participation
6. Support People with Complex Needs	12. Provide Community Services to Everyone
13. Evaluate Future Innovations Based on *Everyday Lives* Principles	

Home and Community Based Services Quality Framework

ODP applies the Home and Community Based Services (HCBS) Quality Framework developed by the Centers for Medicare and Medicaid Services (CMS) across its programs. This Quality Framework establishes Focus Areas with outcomes CMS expects states to achieve in order to meet CMS Waiver Assurances.

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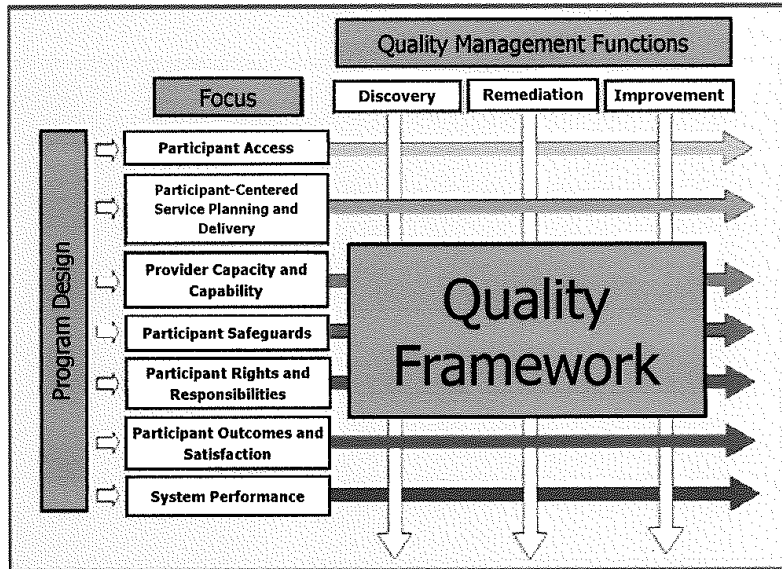
The HCBS Quality Framework places emphasis on **desired outcomes** as follows:

Focus	Desired Outcomes
Participant Access	Individuals have timely access to needed services and supports.
Participant-Centered Service Planning and Delivery	Services and supports are planned and effectively implemented in accordance with each participant's unique needs, expressed preferences and decisions concerning his/her life.
Provider Capacity and Capabilities	A network of qualified, competent providers is developed and maintained.
Participant Safeguards	Individuals are safe and secure in their homes and communities, taking into account their informed and expressed choices. Individuals are supported to achieve and maintain optimal health.

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| Focus	Desired Outcomes
Participant Rights and Responsibilities	Individuals are supported to exercise their rights and accept personal responsibilities.
Participant Outcomes and Satisfaction	Individuals are satisfied with services and achieve desired outcomes.
System Performance:	Organizational performance is continuously measured, evaluated, and improved.
Quality Management	Individuals and other stakeholders are engaged in designing and improving services.
Human Resources Management	A stable, knowledgeable, and effective workforce is developed and maintained.
Financial Management	Fiscal practices are state-of-the-art, accurate, and efficient.
Information Management	Information systems are state-of-the-art, cost-effective, efficient, and support data-based management.

Program design sets the stage for achieving these desired outcomes by establishing standards in areas such as service delivery, provider qualifications, assessment, service planning, safeguards, and monitoring of participant health and welfare. Within the HCBS Framework, **Quality Management** (QM) encompasses three functions:

Discovery	Remediation	Continuous Improvement
Collecting data and direct participant experiences to assess the ongoing implementation of the program, identifying strengths and opportunities for improvement.	Taking action to remedy specific problems or concerns that arise.	Using data and quality information to take actions that lead to continuous improvement.

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Responsibility

Ultimate responsibility for ODP's QM Strategy rests with the Deputy Secretary. Responsibility is delegated to ODP's Executive Leadership, Program Bureau Oversight Groups, and local oversight groups as appropriate to each Bureau and/or program.

Quality Management Structure
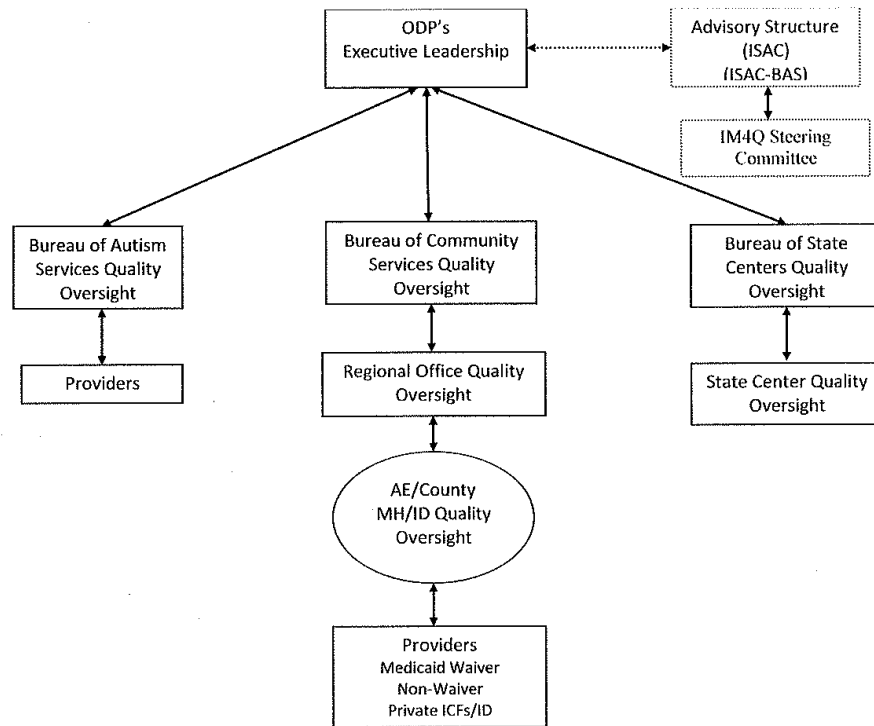
Each layer of ODP's QM Structure—Executive Leadership, each Program Bureau, Regional Offices, Administrative Entities/County MH/ID Programs, and Providers (including Waiver and Non-Waiver Providers, State and Private ICFs/ID) is responsible to carry out the following activities, in consideration of its major functions and contributions to the effectiveness of the service system:

- Establish and/or align with ODP's mission, vision, values, quality framework, and priorities.
- Determine overall QM structure and process.
- Identify persons responsible for overall management of the QM function.
- Oversee and monitor all processes related to the entity's QM Strategy.

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- Foster development of a comprehensive inventory of performance measures.
- Evaluate the data sources used to measure system performance and recommend enhancements.
- Approve performance measures that will be assessed.
- Based on review of performance trends, patterns, and outcomes, establish quality improvement priorities.
- Review and approve QM Plans.
- Ensure waiver assurances and requirements are met.
- Ensure remediation activities are completed and evaluate their effectiveness.
- Collaborate with system partners in improving local services and supports.
- Identify practices to be adopted, modified, or eliminated.
- Report progress and recommendations to Executive Leadership and/or the respective quality oversight body.
- Recommend training and technical assistance that will embed desired policies and practices.
- Recommend changes to policies, procedures and practices, waivers, and regulations.
- Review and evaluate the effectiveness of the established QM roles and responsibilities, structure and process, and implement changes when necessary.
- Ensure QM information is communicated internally and externally.

Quality Improvement (QI) Councils

QI Councils engage stakeholders to review and discuss findings and recommendations for improvement based on the analysis of data. QI Councils then establish QM priorities, identify and adopt improvement strategies and choose performance measures to evaluate the results of implemented change.

ODP engages stakeholders through the ISAC. ISAC members include individuals with an intellectual disability and/or autism, families, representatives from each of the state associations committed to supporting individuals with an intellectual disability and/or autism, advocates, county government, providers, supports coordination agencies, the Developmental Disabilities Council, Disability Rights Pennsylvania and the Temple University Institute on Disabilities. Administrative Entities and providers engage stakeholders in their QM structure and process, including individuals with an intellectual disability and/or autism, families, advocates, county government, providers, supports coordination agencies, local IM4Q teams, and Health Care Quality Units (HCQUs).

### Performance Measurement and Improvement

ODP's QM Strategy involves a planned, systematic, and organization-wide approach to data collection and analysis, performance measurement, and continuous improvement. Quality is built into the processes of daily work, and has four interrelated aspects:

- Systemically collecting, analyzing, and using data to make management decisions;

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- Complying with regulation and ODP policy;
- Designing and implementing initiatives; and
- Monitoring results for sustainability or need for improvement.

ODP uses the Plan-Do-Check-Act (PDCA) Model to implement system improvement.

Plan-Do-Check-Act Model
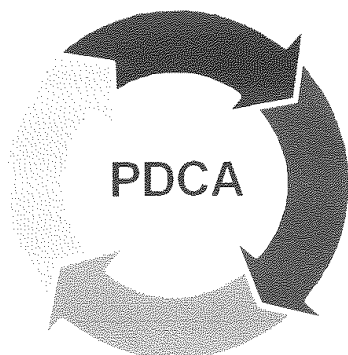
Plan how improvement will be accomplished. Write an action/work plan that specifies goals, measurable objectives, action steps, responsible person(s), and evaluation for the targets met.

Do Implement the improvement plan, including education about the process change.

Check the effect of improvement steps by collecting data; analyze data and summarize lessons learned. Determine the success or failure of the plan.

Act to hold the gains or to continue the improvement process. Incorporate the plan and/or solution into practice. Inform and educate all involved. Continue to monitor and evaluate progress.

QM Planning

Using data from Pennsylvania's Independent Monitoring for Quality (IM4Q) along with national data sets, authorization and claims data and other sources, the IM4Q Steering Committee will develop and submit to the ISAC on an annual basis a summary of findings and recommendations for improvement. National data sets include National Core Indicators (NCI), State of the States in Developmental Disabilities, the Institute for Community Inclusion (ICI) State Data Information on Employment and People with Disabilities, the Residential Information System Project (RISP), and the Supporting Individuals and Families Information System (FISP).

ODP, in conjunction with the ISAC, will review and discuss the summary of findings and recommendations submitted by the IM4Q Steering Committee, determine QM priorities, identify and adopt improvement strategies, and choose performance measures to evaluate the results of implemented change. ODP will publish QM priorities established in conjunction with the ISAC annually.

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Quality Management Certification Curriculum

To build system capacity and ensure success in applying quality management principles and practices across the system, ODP offers a *Quality Management Certification Curriculum* to ODP staff and stakeholders. The course consists of four prerequisite QM webcast modules—*Introduction to QM, Using Information and Tools for QM, QM Planning, and Quality Improvement (QI) Teams*—followed by in-person training. During face-to-face sessions, participants form groups and simulate the activities of QI Teams as they move through the *PDCA Cycle* for improvement with the support of the Office's QM staff.

The curriculum fosters opportunities for stakeholders to join together to improve outcomes for individuals and families through networking and collaboration in areas prioritized for change and improvement by the ISAC. QI Teams consider data gathered through Pennsylvania's IM4Q Program, NCI, and other data sources. Team members identify baselines and targets, and then develop strategies to support priorities including increasing opportunities for integrated employment, promoting self-direction, supporting families, and enhancing participation in the community.

ODP's Quality Management Director and QM staff are also available to provide training and technical assistance upon request.

OBSOLETE DOCUMENTS:
Bulletin 00-10-02, Quality Management Strategy of the Office of Developmental Programs

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APPENDIX B: EVERDAY LIVES STATEMENTS

A Statement of What is Important to People with Disabilities

Everyday Lives in Action: **My Life, My Way** – is presented in two parts. The first part of each value statement explains what the value means to people with disabilities. The second part tells the kind of support individuals with disabilities need from family, supporters and the community to realize the values in their Everyday Lives.

Family means both those related by birth and those chosen as family; supporters means those who provide services and supports, including natural, public and private resources; community means those people we interact with as we live, work, play and worship. These values ***should guide every decision made by, for, and about people with an intellectual disability and/or autism.***

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Freedom – I have the same rights as all other members of the community and I can fully use them. My family, supporters, and community respect my rights.
Stability – Changes to my life are made only with my permission and input. My family, supporters, and community do "nothing about me without me." They plan with me to meet my needs, now and for the future.
Health and Safety – I am healthy and safe in all areas of my life. I, my family, supporters, and community balance health, safety, and risk according to my wants and needs.
Connected – I am a full member of my community with respect, dignity and status. My family, supporters, and community know me as a person, welcome and accept me.
Responsibility – I am dependable and honor my commitments. I keep my word. My family, supporters, and community are honest and fair, do what they're supposed to do, and keep their word.
Communication – I am listened to and understood; my input is valued. My family, supporters, and community listen to me and communicate in ways that work for me.
Success – I am the best I can be in the goals that I decide. My family, supporters, and community learn how to support me to achieve my goals.
Employment/Meaningful Contribution – I want to work and/or have other ways to contribute to my community. My family, supporters, and community support me to find and keep a real job that I like with good wages and benefits or start and run my own business, and/or volunteer the way I want in my community.
Individuality – I am respected and valued for who I am and want to be. My family, supporters, and community treat me with dignity and support me in a person-centered way.
Relationships – I decide who is in my life – friends, family, partners, neighbors, pets, and others in the community. My family, supporters, and community respect the relationships I choose and support me to form new relationships.
Partnership - I need people in my life who will honor my life's journey. My family, supporters, and community work together with me to build bridges.
Quality – I want my life my way. I, my family, supporters, and the community make sure the services I choose are proved to be of high quality.
Advocacy – I am the best person to let others know what I want and need. My family, supporters, and community listen to me and understand what I want and need, and assist me to be heard by others.

A Statement of What is Important to Families who Want an Everyday Life for their Family Member

Families embrace and envision person-centered, family-supported, values-based, everyday lives for their family members, regardless of changes in administrations, fiscal fluctuations, and unforeseeable influences. Families want these values adopted and embedded into ODP's policy and practice across the service system. By consistent consideration of the question, "Are we adhering to the values?" these value statements can be utilized to bring about meaningful and enduring systemic changes.

The Unique Role of Family – Families represent the very heart of life throughout the lifespan.
Supporting Families Throughout the Lifespan – Our families must be encouraged and supported early on in their children's lives to hope, dream and reach for the future.
Knowledge and Resources –Families want to feel strong so they can provide for and support their loved ones.
Mentoring – Families value mentoring as a strong component to informing and supporting families.
Communication – Good communication involves everyone working toward common goals, respecting one another in partnership.
Respect and Trust – Respect must be granted to all families, their values and beliefs, homes, and privacy.
Choice and Control – Families seek freedom, on behalf of their family members, to make responsible and personal choices in all aspects of life.
Health and Safety – People should be safe at home, work, school, and in the community.
Simplicity and Flexibility – Families value a simplified and transparent system that is easy to access, understand, and navigate.
Quality and Stability – Families value quality supports and services that enable people to live everyday lives.
Collaboration – Along with self-advocates, family members must be part of the discussion, planning, and creation of every element of the service system.
Opportunity for Innovation – Families support innovative, creative approaches that can be the key to truly person-centered solutions and often offer the most cost-efficient solutions.

Quality Team Ground Rules: Example

- Members will follow the ground rules

- Decisions will be made by consensus

- Acknowledge that each member has something of value to contribute

- Feedback will be constructive…and not derogatory or personal

- All ideas will be heard

- There is no such thing as a silly question

- Meetings will begin on time

- Work assignments will be equitable

- Assignments will be completed on time

- Members will advise ahead of time—when possible—if unable to attend a meeting

Quality Management Tools

This appendix to the ODP QM Certification Handbook shares examples of the **6 data visualization tools most commonly used in ODP** as well as the **"7 basic tools of quality."**

. . . .

There are numerous options for turning raw data into visualizations, but the most commonly used graphs in ODP include:

- Line Graph
- Bar Graph (Column Graph)
- Combination Line and Bar Graph
- Pie Chart/Graph
- Stacked Column Graph
- Clustered Column Graph

These other graphical tools/techniques, known as the "7 basic tools of quality," are commonly considered helpful for troubleshooting quality issues:
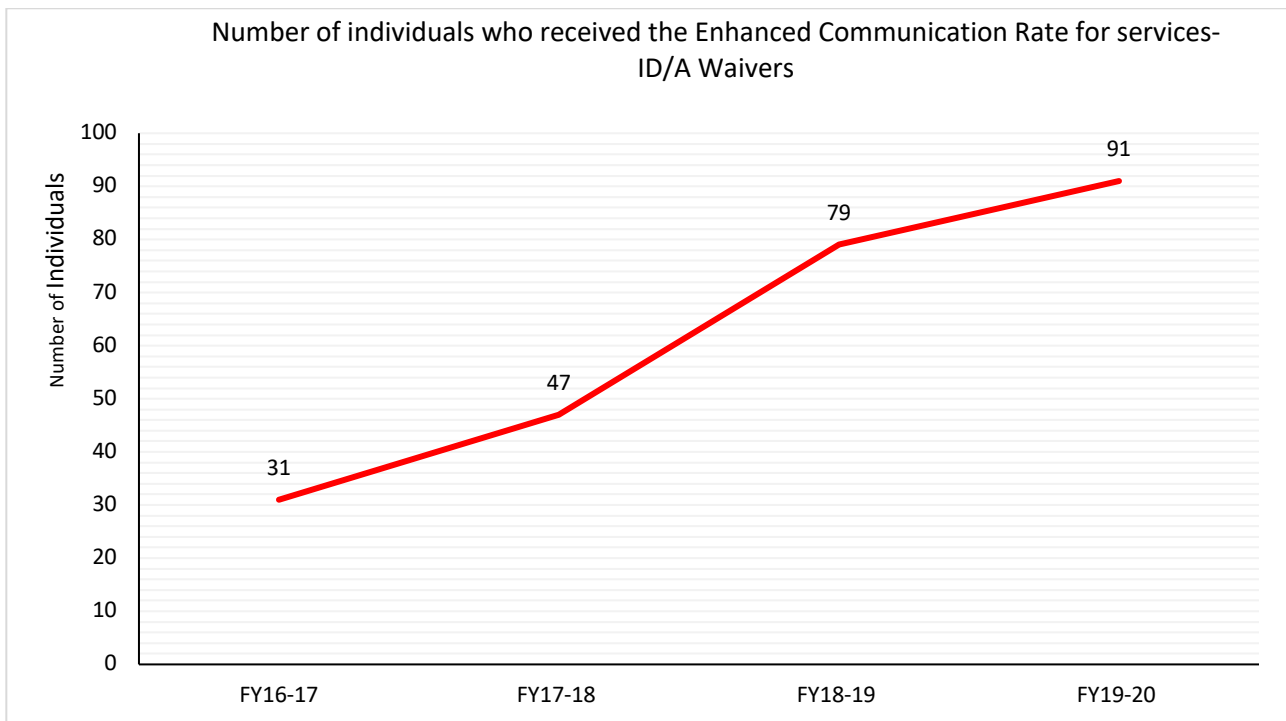
- ❖ Cause-and-Effect Diagram
- ❖ Check Sheet
- ❖ Control Chart
- ❖ Histogram
- ❖ Pareto Chart
- ❖ Scatter Diagram
- ❖ Stratification Chart

ODP encourages use of a variety of visualization tools, depending on the type of data you want to display and the "story" you want to tell with that data. These tools are especially helpful when presenting information to stakeholders in your organization via quarterly and annual reports, PowerPoint presentations, etc.

LINE GRAPH

Line graphs, also known as Run or Trend Charts, compare two or more variables and are typically used to show *trends over a period of time*, thus time is a common variable used, and the x-axis should represent a unit of time (e.g., month, quarter, year, etc.). Line graphs are also used to observe effects of process or quality improvement activities or in making predictions about future performance. They provide a very simple way to show an upwards or downwards trend or to *display or detect variations* in the data.

Trends generally represent a *statistically* important event that requires further analysis; however, you should resist the tendency to see significance in every little variation in the data and instead wait to interpret your results until you have at least 10 data points.

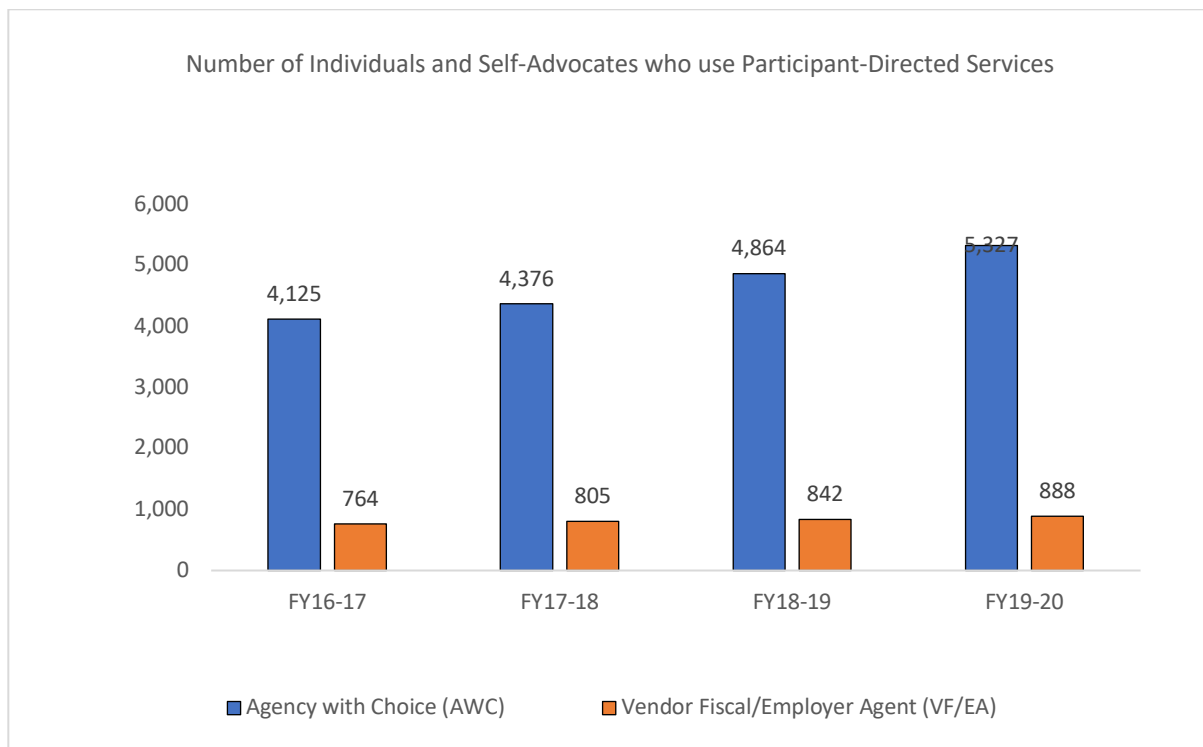Number of individuals who received the Enhanced Communication Rate for services-ID/A Waivers

BAR/COLUMN GRAPH

Bar graphs, also known as bar, or column charts, are used to show:

- Frequency of data distribution/spread, symmetry, skewness, or extreme outliers
- Distribution of data with multiple categories
- Grouped data in nominal or ordinal categories
- Comparison amongst different categories/groups
- Large changes over time

Bar graphs, like the example shown in the example below, can be used to show relationships between different data series that are *independent* of each other. In the example, the height of the bar represents the measured value or frequency (the percentages), of three categories (blue, orange, green) within the data series (note the total in the series is 100%), over a three-year period.

A bar graph's x-axis consists of discrete values, with each individual bar representing a unique group, within the grouping, and with gaps to separate the bars. The y-axis will generally show the frequency scale (percentages of the whole grouping or counts). In some cases, like the example shown below, the graph creator, may opt to include the counts or percentages at the tops of the bars instead, and forgo inclusion of the y-axis.

Number of Individuals and Self-Advocates who use Participant-Directed Services

FY16-17	FY17-18	FY18-19	FY19-20
4,125	4,376	4,864	5,327
764	805	842	888

■ Agency with Choice (AWC)   ■ Vendor Fiscal/Employer Agent (VF/EA)

COMBINATION LINE AND BAR GRAPH

Combination line and bar graphs are a great choice for presenting two different data series that have different scales, expressed in different units, in one visual.

In this example, we are looking at the total amount of paid claims to Financial Management Services (FMS) providers (bars), as presented in millions (left axis), across fiscal years versus the total number of people utilizing FMS (line), as presented in thousands (right axis), in the same fiscal years.


Individuals Self-Directing Services
(Financial Management Services)
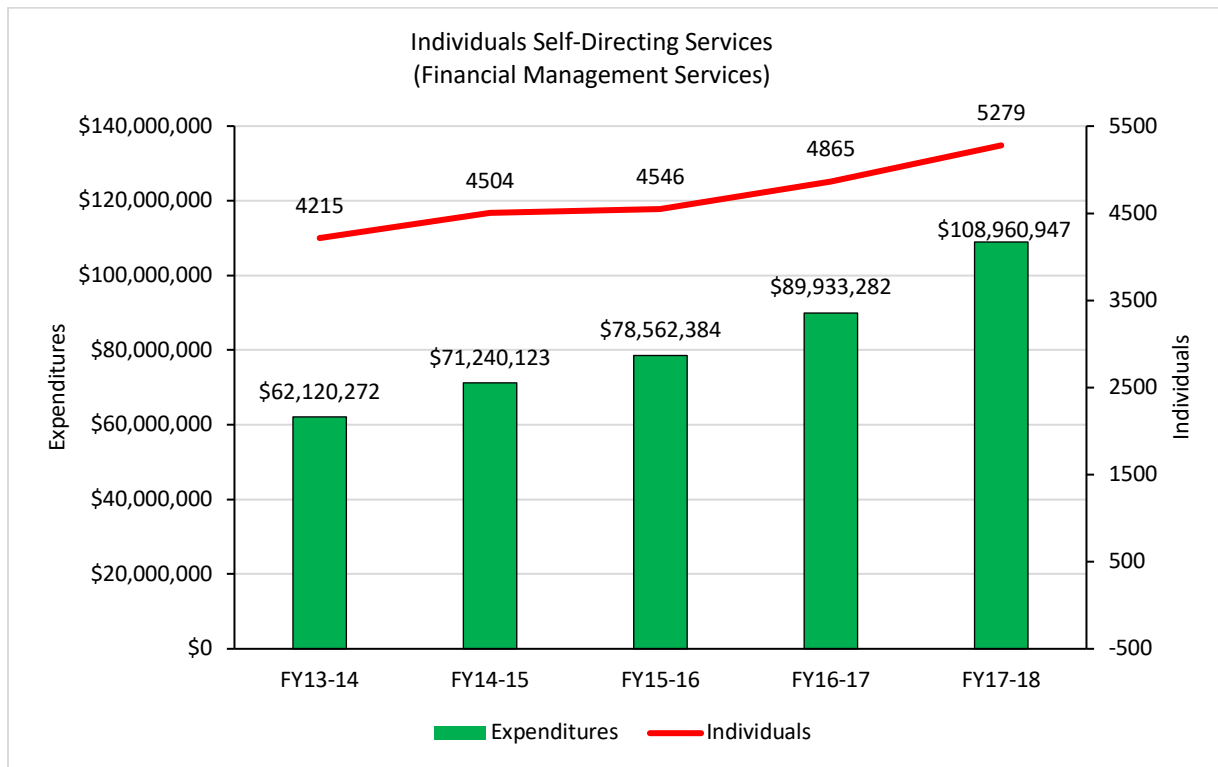
PIE CHART/GRAPH

Pie charts are used to understand *all* responses in a complete data set that <u>adds up to 100%</u>. They are designed to visualize how a whole (pie) is divided into its parts (slices). Each slice of the pie represents a category and the size of the slice represents the proportion of the total, usually displayed as a percentage. It is recommended that <u>no more than 8 categories</u> are represented in a pie chart and sometimes "Other" is used as a category to represent missing or unknown data.

Pie charts can be used to display nominal or ordinal categories of data and to compare areas of growth, such as the number of people utilizing a specific service. However, it should be noted that pie charts are <u>not an analysis of the data</u>, only a visual representation of it.

Percent of individuals Who Reported They Can Access Necessary Medical Services
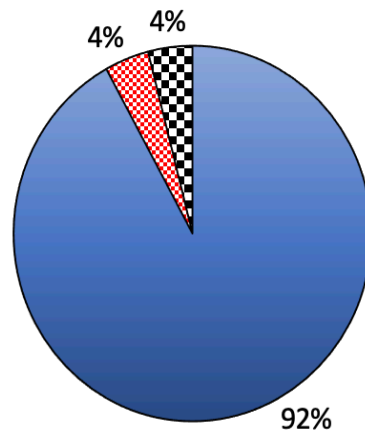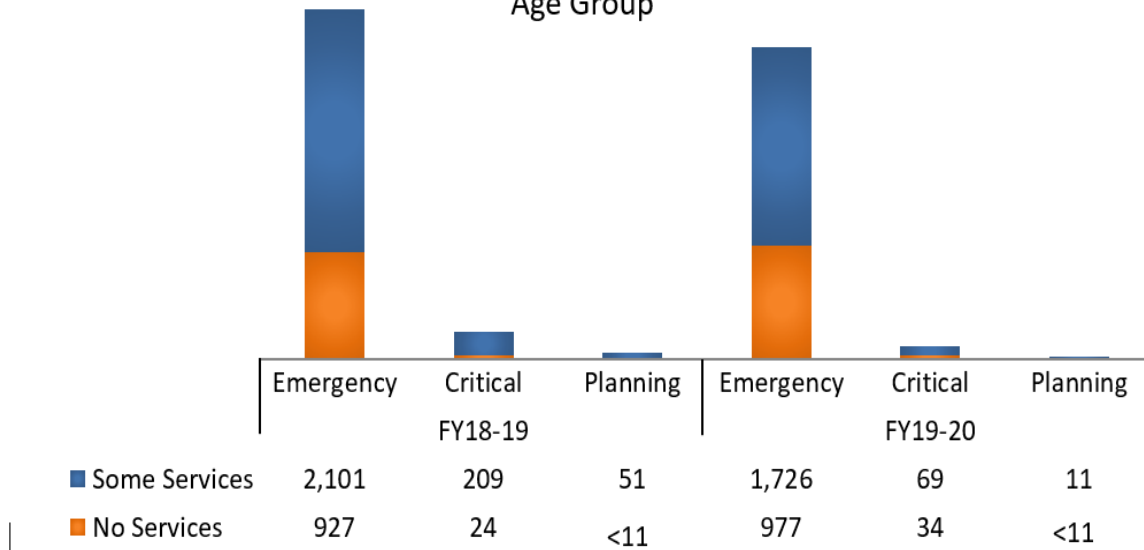

Percent who reported it was easy, in-between, or hard to get
health care services in their community (n = 2,395)

■ very easy or easy   ▨ in-between   ▨ very hard or hard

STACKED COLUMN GRAPH

A stacked bar/column chart is designed to allow the viewer to compare items in a specific range of values, as well as, to show the relationship of the individual sub-items to the whole. They are also useful for reviewing individual categories across time units. The bars/columns that represent each category are "stacked" on top of each other, so that together they represent the whole data set.
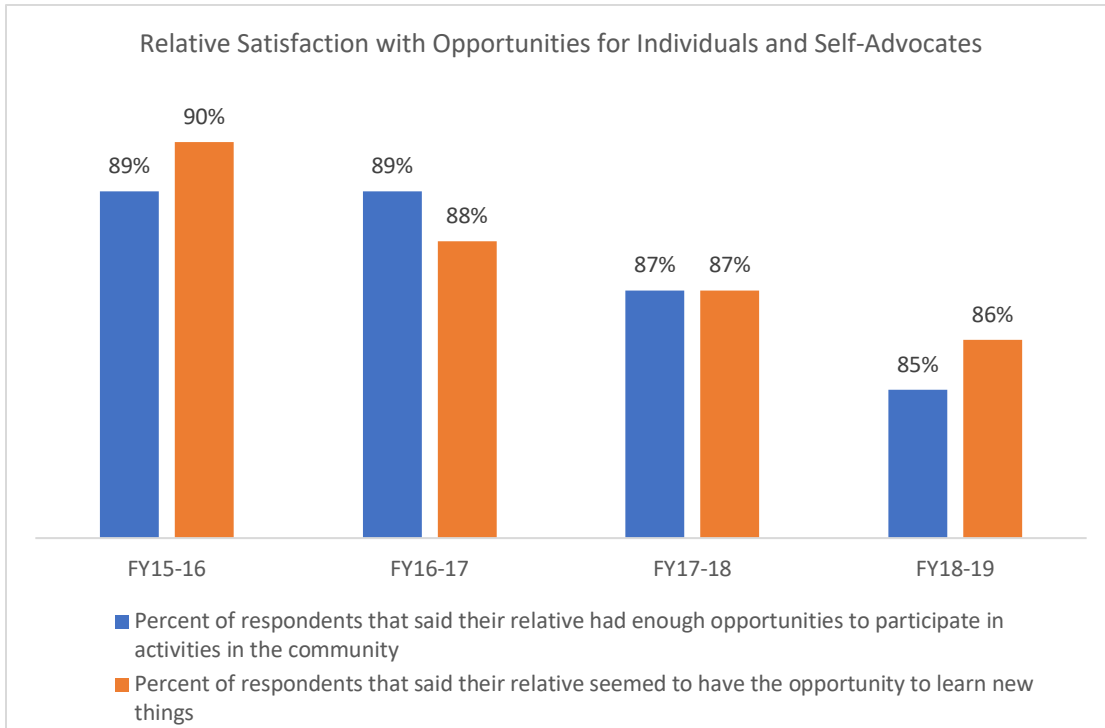
Unduplicated Count of Newly Enrolled Individuals from the ID
Waiting List into the ID/A Waivers - by Urgency Need Category and
Age Group

	Emergency	Critical	Planning	Emergency	Critical	Planning
		FY18-19			FY19-20	
■ Some Services	2,101	209	51	1,726	69	11
■ No Services	927	24	<11	977	34	<11

Data Sources: EDW HCSIS Consumer Demographics Fact and PUNS as of 09/30/2020 and PROMISe as of 11/09/2020
Note: Categories showing <11 were changed from actual counts to protect privacy.

CLUSTERED COLUMN GRAPH

A clustered bars/columns chart is a bar chart, but it allows for groupings of bars/columns, side-by-side, for comparison, at-a-glance. Clustered bars/columns are an excellent way to graphically represent data across years and present multiple data categories within those years.

Relative Satisfaction with Opportunities for Individuals and Self-Advocates

	FY15-16	FY16-17	FY17-18	FY18-19
Percent of respondents that said their relative had enough opportunities to participate in activities in the community	89%	89%	87%	85%
Percent of respondents that said their relative seemed to have the opportunity to learn new things	90%	88%	87%	86%

CAUSE-AND-EFFECT DIAGRAM

A cause-and-effect diagram, also known as a "fishbone diagram" or "Ishikawa diagram," is
used to display and analyze all potential causes to a problem or to discover the source, or root cause of
variation. It's frequently used along with brainstorming, which is a group of people generating a free-
flowing list of ideas. In the case of a fishbone diagram, the list of ideas would be the potential causes of
a problem/variation and the fishbone is used as an effective tool for organizing those potential causes
into a useful visualization.

For the purpose of standardization, there are generally two healthcare industry standards used to
categorize and sort potential causes. They are:

❖ **"The 4 Ms,"** which are generally used in a manufacturing system:
   *Manpower (workers), Methods (systems and procedures), Machines (equipment), and
   Materials (raw materials); and*

❖ **"The 5 Ps,"** which are more appropriate for a human services system: *Patrons (people using
   the system), People (workers), Provisions (supplies), Places (work
   environment), and Procedures (methods and rules)*

As you can see in this example, you would start by naming your problem/variation on the "head" of the
fish (to the right) and then, next to each line associated with the "5Ps", you would list out all potential
causes related to the problem statement, in that category. This example is limited to 2 potential causes
for each "P" only because of limited space on the example.
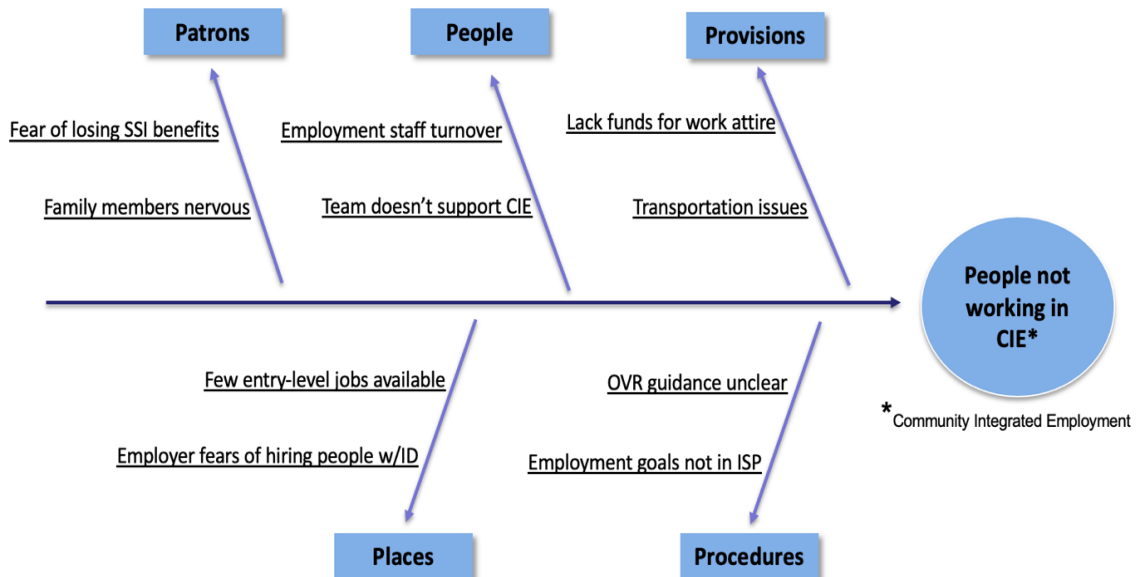
CHECK SHEET

A check sheet is a simple, standardized, often grid-like form for collecting and tabulating data for future analysis. It is often used in a production process but is easily adaptable for a human services environment, as you can see by the example below.

Before designing your check sheet, decide what event or problem will be observed, the timeframe during which data will be collected, and how long it will be collected. It's important to test your check sheet for a short trial period to be sure it actually collects the data you are intending to and that it is easy to use.

Check sheets are ideal for:

- Observing and collecting data repeatedly by the *same person* or at the *same location*

- Capturing data on the *frequency* or *patterns* of problems

Project Name: _____

Name of Recorder: _____

Location: _____

Collection Dates: _____

| Med Error Type	SUN	MON	TUES	WEDS	THURS	FRI	SAT	TYPE TOTAL
Omitted								
Transcription								
Wrong Dosage								
Wrong Med								
Wrong Person								
Wrong Route								
Wrong Time								
Other								
DAILY TOTAL								

CONTROL CHART

A control chart is constructed the same way as a line/run/trend chart, but with upper and lower control limits, and is used mostly in industrial settings to provide guidance for ongoing control of a process. Its focus is on *detecting and monitoring variations* in a process over time and *distinguishing special causes from common causes* in observed variations. Control charts can be used to assist with eliminating special-cause variation and to observe effects of process improvement activities.

As mentioned, there are two types of variations: common cause (stable, predictable, within control limits, no pattern) and special cause (not stable, not predictable, outside control limits, or inside control limits with a pattern). Generally, no action is needed to address common cause variation, but special cause variation should be investigated.

On this control chart example, you will see the following as they relate to medication errors:
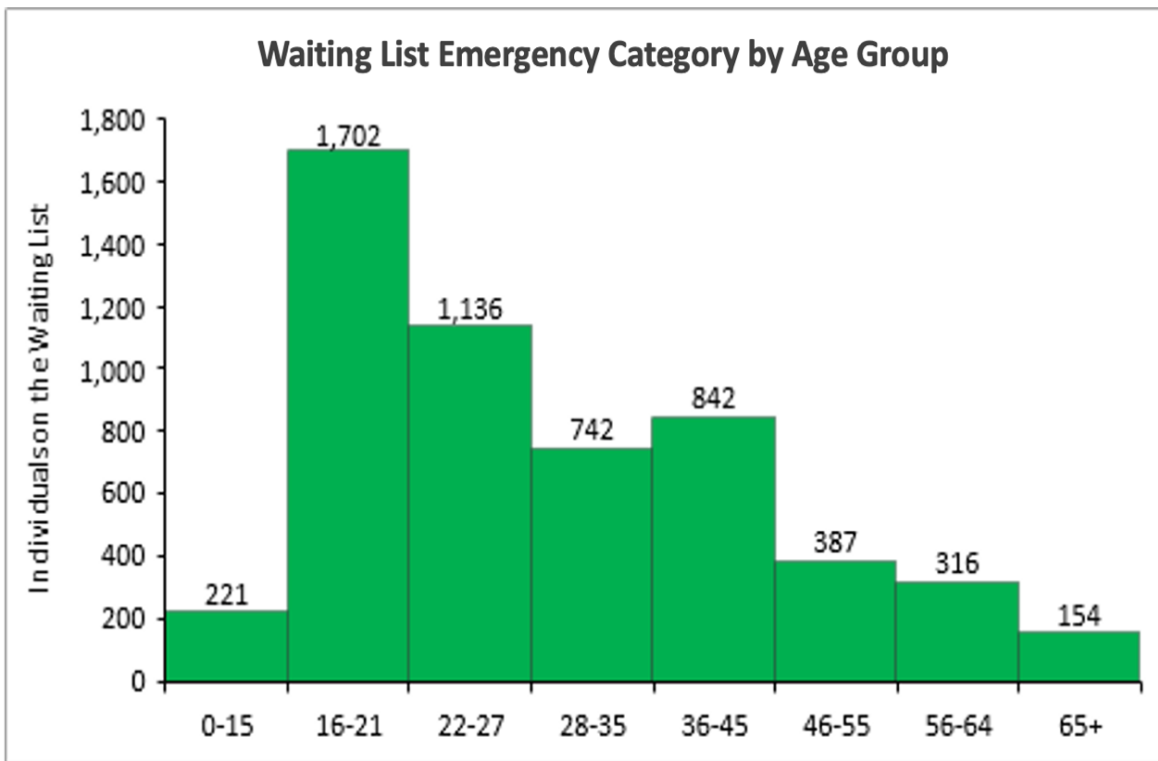
- **UCL** = Upper Control Limit
- **CL** = Control Limit ("average" or "mean" found by adding up all counts/values, then dividing by the total number of counts/values)
- **LCL** = Lower Control Limit

Medication Errors
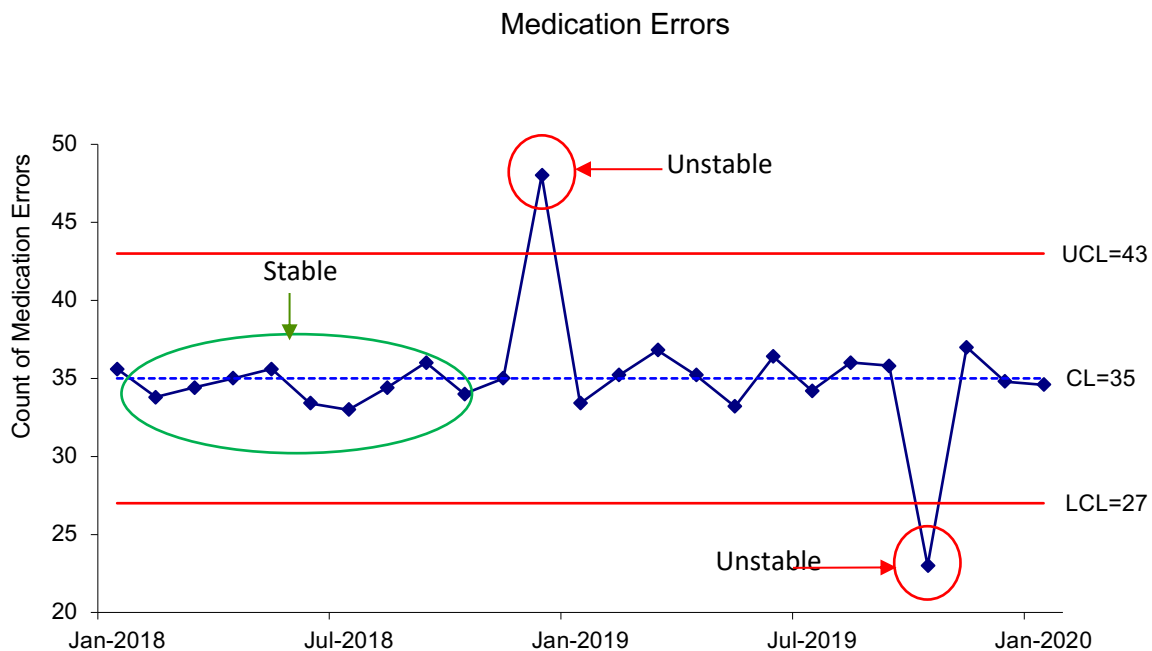
HISTOGRAM

A histogram is used to show data frequency distribution (number of data points that fall within the specified ranges), data symmetry or skewness, and extreme data outliers. It is similar to a vertical bar graph, but better for large data sets and summarizing groups of data. A histogram is generally divided into equally sized ranges of values along the x-axis and the bars are not separated by gaps.

This example of a histogram shows the number of individuals on the ODP Waiting List in the emergency category, displayed by age groups.

Waiting List Emergency Category by Age Group

(Individuals on the Waiting List by age group: 0-15 = 221; 16-21 = 1,702; 22-27 = 1,136; 28-35 = 742; 36-45 = 842; 46-55 = 387; 56-64 = 316; 65+ = 154)

PARETO CHART

Pareto charts combine a bar graph with a line graph, illustrating not only a category's individual values, but also the cumulative total of the entire set. These charts utilize a series of bars, arranged by descending heights, to display priorities for problem-solving, as observed by the tallest bars. By displaying the data in this way, we can clearly identify where we need to focus our efforts to make the most impact on solving a problem. In the example below, it's clear that QI efforts should be focused on medication errors related to omission, followed by wrong dosages (combined these categories account for 83% of errors).

Note that Pareto charts are related to the Pareto principle, also known as the "80/20 rule." You'll recall this idea; that 80% of the problems, come from 20% of causes. Thus, by focusing priorities on 20% of causes, 80% improvement can be achieved. Pareto charts can help you to do this.

Best uses of Pareto charts:
- Analyzing data about the frequency of problems or causes in a process
- Focusing on the most significant problems or causes when there are many to consider
- Analyzing broad causes by looking at their specific components
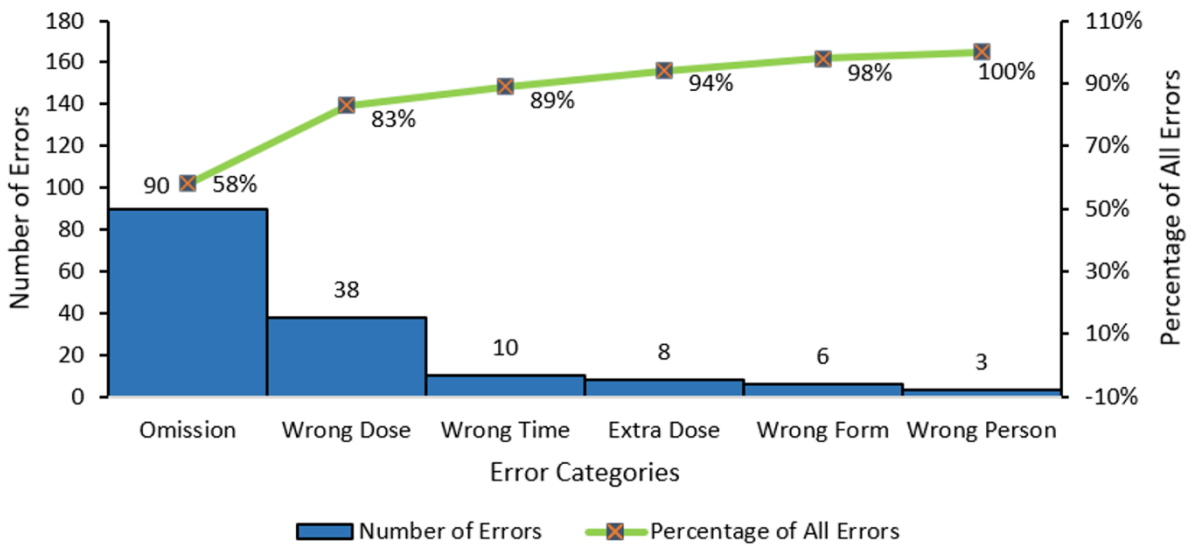
Source: QM Recertification Curriculum Examples

SCATTER DIAGRAM

A scatter diagram is used to determine the *extent to which two variables relate to one another*. This relationship is referred to as **correlation** and it can be *positive, negative,* or *no correlation*. A **positive correlation** is when one variable increases, the other also increases. A **negative correlation** is when one variable increases, the other decreases.

A scatter diagram is often used in combination with a fishbone diagram or Pareto diagrams. Generally, the y-axis displays the *dependent variable,* which is a variable that depends on other factors measured and is expected to change with experimental manipulation of independent variables. The x-axis generally displays the *independent variable*, which is the variable whose variation is not dependent on the other variable. A scatter diagram should have *at least 25 pairs of data points* for each of the 2 variables.

This example of a scatter diagram shows us the age of individuals most recently enrolled in the Consolidated waiver from the Waiting List Emergency category.

**New Consolidated Waiver Enrollees by Age & PUNS Emergency Category**
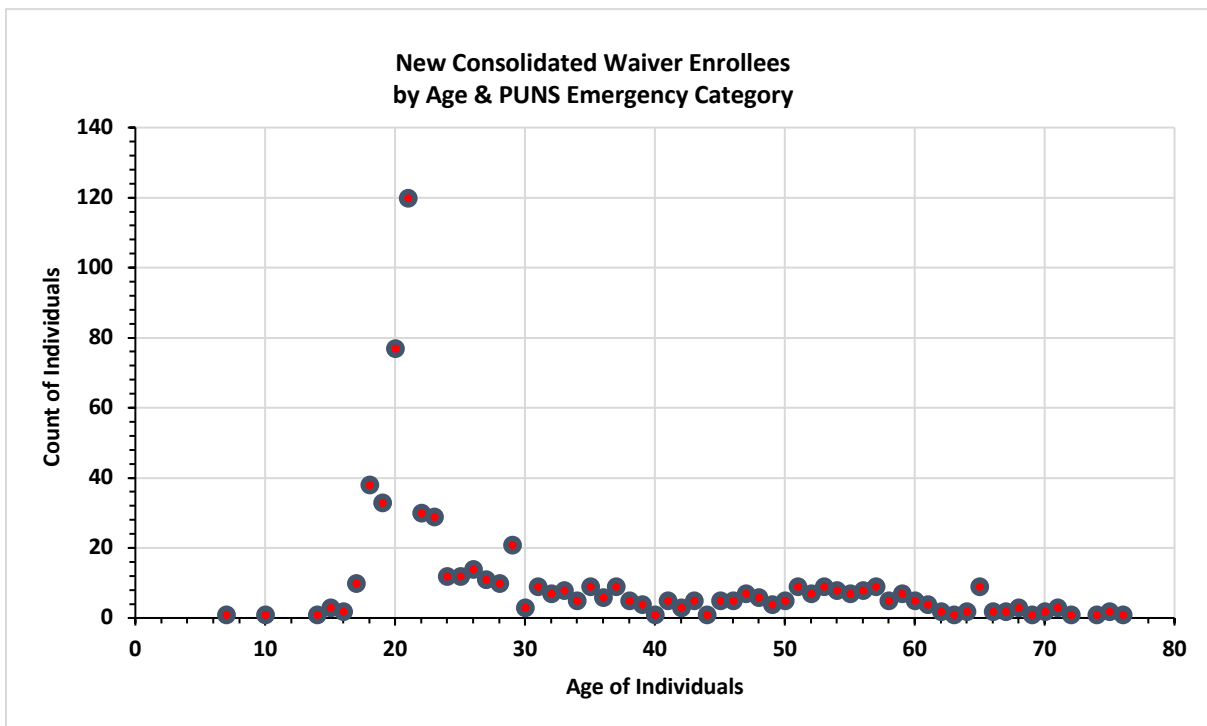
STRATIFICATION CHART

Stratification is the process of classifying a set of data into categories or subgroups based on predetermined criteria. A stratification chart is used to *demonstrate underlying patterns* or *show where a problem does and does not occur* based on those categories or subgroups. It is sometimes called the "Is/Is-not matrix." This type of chart can be used before data collection to better understand what patterns or differences to be looking for or it can be used after data collection to determine factors that affected results.

A stratification chart employs the "divide and conquer" strategy. For example, a table that displays an organization's total number of medication errors over time, with multiple sites' numbers included in that total number, might appear to represent a systemic issue, and not provide you with enough information to address the problem. By separating out and graphing the site-specific data in a scattergram, you will be able to determine where the problem is occurring and where it is not occurring; showing you where improvement efforts should be focused.

This example of a stratification chart shows us that Provider 1 is in need of assistance and that improvement efforts should first focus there.
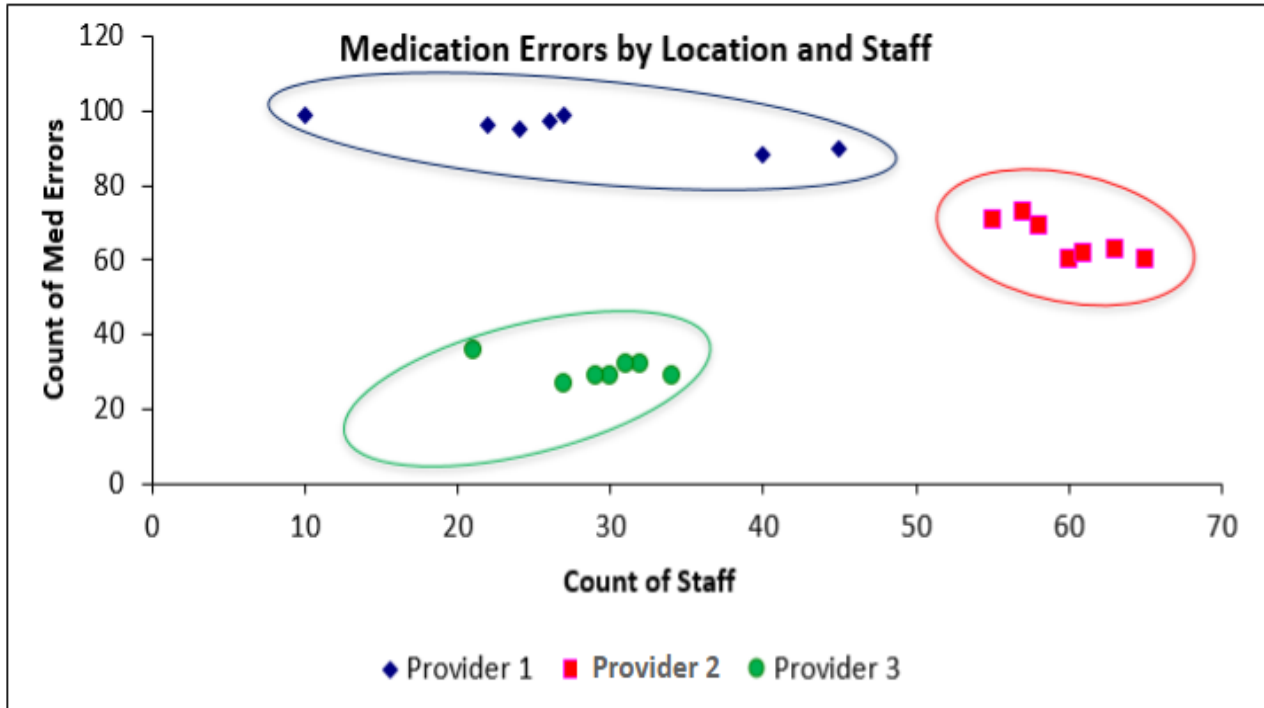
Answer Key - Module 101 – Knowledge Check	
#1	c) Process/system related issues contribute to 85% of problems, and 15% are traceable to employees.
#2	a) Management should empower employees to focus on improving their own performance while management's focus should be on process/system problems.
#3	b) 80% of outcomes/outputs from a given situation or system are determined by 20% of the causes/input.
#4	c) should come prior to application of the PDCA cycle.
#5	d) Plan Do Check Act
Answer Key - Module 102 – Knowledge Check	
#1	TRUE
#2	FALSE
#3	c) Sampling
#4	FALSE
#5	b) Special Cause
#6	TRUE
#7	FALSE
Answer Key - Module 103 – Knowledge Check	
#1	c) Target objective
#2	c) Specific, Measurable, Attainable, Realistic, Time-bound
#3	FALSE
#4	TRUE
#5	TRUE
#6	FALSE
#7	TRUE