



WHITE PAPER ▶

Advancing Best Practices for Goal Attainment Scoring



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Executive Summary

There is broad agreement that a patient's priorities and goals should guide their health care. Goal-aligned care enables the clinician to learn more about the outcomes valued by the patient, their preferences with respect to their condition, and possible treatments and trade-offs. Evidence supports personalized goal setting in specific patient populations, to allow clinicians to provide goal-aligned care. Goal setting has become a key component for management of adults with complex conditions. It promotes positive outcomes, improved health and overall functioning in a variety of populations, such as patients with dementia, coronary heart disease, stroke, end-stage renal disease, diabetes and rehabilitation needs.

The National Committee for Quality Assurance (NCQA) developed a set of measures—**person-centered outcome measures**—that evaluate how well organizations document, monitor and help people make progress on personalized goals. Goal attainment scaling (GAS) is one method organizations can use to document and monitor goals over time. While this method has been used extensively for research and evaluation in some fields (e.g., rehabilitation, dementia), this is the first time it has been considered in quality measurement.

NCQA convened a group of experts and stakeholders to address methodological and implementation best practices for GAS that can support its broad use in quality measurement. Two convenings, held in February and October 2022, focused on implementing GAS in multiple settings and goal setting with diverse populations. This white paper highlights key findings from expert/stakeholder input, supplemented by findings from our review of existing literature.

GOAL ATTAINMENT SCALING: USE AND IMPLEMENTATION

Panelists discussed challenges and potential solutions for widespread implementation of GAS, including use of SMART (specific, measurable, achievable, relevant, time-bound) goals, goal inventories, scaling, scoring and clinician training. Goals should be SMART in order to be actionable and sustainable. Many GAS experts use goal inventories to help simplify implementation and provide structure for goal selection and training. Panelists stressed the importance of creating accessible goals that do not always rely on words and that include pictures and video.

Traditionally, GAS is scored on a 5-point scale, which allows evaluation of appropriate scaling using t-scores and facilitates use in clinical practice. The t-score converts an ordinal scale to a normal distribution for statistical analysis. T-scores can provide reliability and show a patient's progress across multiple goals, and can also be used to evaluate goal setting by clinicians who are using the technique with multiple patients.

Throughout the convenings, panelists emphasized the importance of clinician training as key to successful implementation of GAS. A variety of approaches and techniques were discussed, including consistent clinician training; mentoring programs; using feedback mechanisms such as videotaping; developing and implementing support mechanisms such as prompts, interview guides or goal inventories to help guide clinician goal-setting conversations and patient education on the goal-setting conversation. Panelists also recommended different methods of quality management of GAS, discussed below.

DIVERSE POPULATIONS

Panelists discussed barriers and solutions for goal-setting conversations in diverse audiences. Patients with communication barriers (e.g., non-verbal, non-English speaking) need to have enough time with the clinician to communicate their needs and goals. A care coordinator, community health worker or social worker may be better at conversing with the patient, particularly when there are language barriers. Clinician cultural competency is another consideration. Educating patients about how they can participate in shared decision making with their clinician is essential, and could be led by peer navigators or community health workers, who can act as cultural brokers between clinicians and patients.

PANEL RECOMMENDATIONS: IMPLEMENTING GOAL ATTAINMENT SCALING

The major recommendations of the expert panel, incorporating ideas from both convenings, are summarized below.

CATEGORY	RECOMMENDATION
Goals	<ul style="list-style-type: none"> Should be SMART (specific, measurable, achievable, relevant, time bound) in order to be actionable and sustainable.
Goal Inventories	<ul style="list-style-type: none"> Use as a discussion guide to facilitate goal setting between clinician and patient. May simplify implementation and provide structure for goal selection and training but may also restrict patients' goal options, if used exclusively. Target to specific patient populations and have those populations review to ensure relevance and validity. Should be accessible by all individuals; use pictures and videos, appropriate language, larger font size; supplement with patient education materials. Refine and update frequently. Monitor how clinicians are using them, to ensure they remain patient-centered.
Multiple Goals	<ul style="list-style-type: none"> Rank by importance to help provide focus on what matters most to the patient and the order of completion. Clinicians and patients should have access to the goals, to be able to assess progress.
Scaling and Scoring Goals	<ul style="list-style-type: none"> Both clinician and patient should rate progress on the goal. The traditional 5-point GAS scale can be cumbersome and time consuming. Limiting documentation to current status and goal (GAS-Light) could decrease implementation time and increase uptake of multiple goals. With all scaling methods, defined scales should be individualized to the patient.
Clinician Training	<ul style="list-style-type: none"> Provide consistent, standardized training, along with ongoing feedback from mentors experienced with GAS. Create feedback mechanisms for improvement, such as videotaping clinicians implementing GAS, for review and feedback. Develop clinician support tools, such as interview guides and prompts, or patient education materials that prepare the patient for a goal-setting visit. Train clinicians to start with broad values and narrow down to specific goals.
Consistent Implementation	<ul style="list-style-type: none"> Incorporate t-scores to monitor appropriate clinician use of goal setting and GAS, and initiate quality improvement of the process. Ensure data infrastructure is in place to provide efficient, effective data collection and sharing. Review goal quality intermittently to ensure appropriate implementation of GAS. Patient education on their disease and disease management may lead to better goals and outcomes. Avoid language that is too technical. Implement community advisory boards to review GAS materials and provide feedback on their appropriateness for the community. Patient education about participating in shared decision making with their clinician is essential and could be led by peer navigators or community health workers. Mapping community resources provides clinicians with that knowledge and can contribute to goal achievement.
Diverse Populations: Identifying and Scaling Goals and Tailoring Implementation	<ul style="list-style-type: none"> Tailor language to the patient population being served. Create processes for working with individuals with low literacy and/or limited English proficiency. Trust building between clinician and patient is essential to a successful conversation about goals and scaling. Partner with patient and community organizations that focus on underrepresented groups, to identify techniques for approaching the conversation with patients from those groups. Promote cultural competency training for clinicians. Patients with communication barriers (e.g., non-verbal, non-English speaking) need to have enough time with the clinician to communicate their needs and goals. A care coordinator or social worker may be better at conversing with the patient, particularly when there are language barriers. Individuals completing initial patient intake should speak the same language as the patient. Clinician cultural competence is critical to goal setting. Peer navigators can be cultural brokers between clinician and patient. Review GAS materials regularly to match the community and ensure materials are not culturally biased.
Digitalization	<ul style="list-style-type: none"> Develop digital quality measures for easier implementation. Use of digital measures can decrease the measurement burden through standardized and structured data and can promote an automated and consistent measurement process. Aids in communication between patients and providers about goal attainment progress.



Introduction

GOAL-ALIGNED CARE

There is broad agreement that a patient's priorities and goals should guide their health care.¹ Goal-aligned care enables the clinician to learn more about the outcomes valued by the patient, their preferences with respect to their condition, and possible treatments and trade-offs.^{2,3} Evidence supports the use of personalized goal setting in specific patient populations, to allow clinicians to provide goal-aligned care, and goal setting has become a key component of managing adults with complex conditions.⁴ It has also been shown to promote positive outcomes, improved health and overall functioning in a variety of populations, such as patients with dementia,⁵ coronary heart disease,⁶ stroke,⁷ end-stage renal disease,⁸ diabetes⁹ and with rehabilitation needs.¹⁰

Assessing whether care aligns with a patient's personal outcome goals is challenging because of the lack of adequate processes to identify, document and monitor progress towards attaining patient goals. Goals may also conflict with one another.^{11,12} Clinician goals often focus on disease-specific management, which may differ from what is important to the patient. For example, the clinician may focus on disease-specific biomarkers (such as blood pressure),¹¹ rather than on quality-of-life outcomes such as participating in social activities.¹² Another challenge is that when identified, goals are often not widely communicated across care teams or systematically incorporated into a care plan.¹³

Movement toward patient-centered, goal-aligned care requires a structured approach to identify, document and monitor goals from the patient's perspective.¹⁴⁻¹⁶ Measurement can be used to drive care that matters and encourage clinicians to deliver care that aligns with a patient's health outcome goals. For quality measurement to be successful, health outcome goals must be measured and tracked in a standardized way.

PERSON-CENTERED OUTCOME MEASURES

Over the past few years, research studies have explored structured approaches to identifying patient-centered goals, and aligning care to these goals.¹⁴⁻¹⁷ Using study evidence, NCCQA, with support from The John A. Hartford Foundation, The SCAN Foundation and the Gordon and Betty Moore Foundation, developed and tested measures for identifying, documenting, monitoring and tracking the person-centered outcomes approach.

A person-centered outcome is a goal identified by an individual or care partner that identifies what matters to them and can be used for care planning and quality measurement. The outcome can be measured and tracked using either GAS or patient-reported outcome measures (PROMs). This approach drives care that is focused on what matters to individuals with complex care needs.

GOAL ATTAINMENT SCALING

Goal attainment scaling is an approach to measuring and tracking individualized goals of care that has been widely used in mental health, physical therapy, occupational therapy and geriatrics. It was originally developed in the 1960s by Kirusek and Sherman for program evaluation in mental health settings,¹⁸ and became a reliable, valid and sensitive measurement approach for evaluating complex interventions in different clinical settings, and in research settings as an outcome measure.¹⁹⁻²³ It was initially developed as a 5-point scale ranging from -2 (much less than expected) to +2 (much better than expected), with 0 being the expected level of achievement following a treatment or intervention. Figure 1 illustrates the use of goal attainment scaling for the goal of walking a dog.

The definition of success for each point of the scale is defined beforehand and may be weighted for importance or difficulty. This method also allows different raters (i.e., who may not be the original clinician who set the goal) to clearly rate if the patient made progress toward or achieved the chosen goal.²⁴ Goal attainment scaling integrated with goal-aligned care is associated with increased patient engagement, treatment satisfaction and improved health outcomes.²⁵⁻²⁹ Despite its wide use in multiple care settings, however, methods for use vary. With that in mind, NCCQA convened a group of experts (researchers and clinicians), to ensure that our use of GAS for quality measurement has a sound foundation.

FIGURE 1

+ GOAL: WALK DOG OUTSIDE ONCE A WEEK

Much Less Than Expected (-2)	Less Than Expected (-1)	Expected Outcome (0)	Better Than Expected (+1)	Much Better Than Expected (+2)
Unable to go outside with dog	Does not walk dog but goes outside with dog	Walk dog outside once a week	Walk dog outside twice a week	Walk dog outside three times a week



Methods

CONVENING THE EXPERT GROUP

NCQA's growing experience with the person-centered outcomes approach, and its use of GAS to measure and monitor goals, led to convening experts to explore best practices for implementing GAS. Panelists offered their expertise in behavioral health, geriatrics, medical informatics, occupational therapy, rehabilitation medicine, physical therapy and social work.

The first Advancing Best Practices for Goal Attainment Scaling convening was held in February 2022 to discuss best practices for implementing GAS in multiple settings. A follow-up convening was held in October 2022 to discuss quality management and sustainability of implementing GAS and goal setting with diverse populations. Both convenings had specific goals:

- Understand the current landscape of GAS in use, including methodology options.
- Identify advantages and disadvantages of various methodologies, such as the use of multiple goals, scoring achievement and scaling options.
- Inform development of a GAS method suitable for widespread dissemination.
- Understand requirements to ensure the goal tracking process is sustainable, valid and reliable, without creating additional clinician burden.
- Identify opportunities to adapt training materials and resources to ensure the goal setting process resonates with diverse audiences.

To ensure a range of clinical viewpoints, NCQA identified health professionals who represented a variety of disciplines and patient care settings. The first convening consisted of an overview session, working sessions and targeted discussions. The overview session included presentations from three experts on how they use GAS for clinical and research purposes. The working sessions and discussions included consideration of GAS implementation to assure consistency, feasibility and validity; clinician training and performance management; implementation in diverse populations; and roadmapping the future of GAS through digital measurement. The second convening was comprised of an overview session on lessons learned from the first convening, and targeted discussions focused on quality management and sustainability and how to tailor trainings for diverse patient populations. The convening results below integrate the discussions and stakeholder advice from both convenings.

Refer to the Acknowledgments for a list of convening panelists, their specialties and their institutional affiliations.

Convening Results

EXPERIENCE FROM THE FIELD: IMPLEMENTING GOAL ATTAINMENT SCALING

During the first convening, three speakers discussed their experiences with GAS in physical medicine and rehabilitation, behavioral health and geriatrics.^{14,21,30,31} They presented real-world examples of GAS use, based on their research and clinical experience, to demonstrate that it can be a tool for identifying outcomes that are important to the individual across diverse therapeutic areas.

CASE STUDY #1

PRESENTER: Professor Lynne Turner-Stokes, DM, FRCP

CLINICAL AREA: Physical Medicine and Rehabilitation

PURPOSE: Rehabilitation medicine encompasses a diversity of conditions, levels of ability and treatment goals. GAS allows a person-centered, individualized approach to measuring achievement of intended goals, and has been used in rehabilitation medicine for almost 2 decades.^{26,31-33}

METHOD OF IMPLEMENTATION: A large international study provided evidence for the benefit of repeated cycles of botulinum toxin-A for the treatment of upper-limb post-stroke spasticity.²⁶ Over 2 years, the study captured person-centered goal attainment using GAS.²⁶ A GAS tool was created for upper-limb spasticity; it included six key goal domains, with suggested parameters for goal setting.³² The tool also included a limited set of standardized measures relating to the specific goal area. For example, if the goal area was pain, the standardized measure was a visual analogue scale (verbal rating 1–10).

RESULTS: GAS outcome t-scores were correlated to reduced spasticity.²⁶

KEY LEARNINGS: Researchers concluded that GAS provided a responsive measure for evaluating focal intervention for upper-limb spasticity, identifying outcomes of importance to the individual not otherwise identifiable using standardized measures.²⁶

CASE STUDY #2

PRESENTER: Mark Opler, PhD, MPH

CLINICAL AREA: Behavioral Health

PURPOSE: Current depression scales do not capture what matters most to patients.³⁴ Standard treatments for major depressive disorder (MDD) have low rates of treatment success.³⁵ A research group incorporated GAS to measure treatment goals for patients with MDD and assess their receptiveness to the method.

METHOD OF IMPLEMENTATION: An online, patient-centric survey was administered to patients with MDD.²⁹ A subset of patients was interviewed to evaluate responsiveness to GAS and to understand their perception of its utility and ease of implementation.

RESULTS: Patients reported a variety of goals for MDD treatment, including improved physical health, cognitive skills and social goals.³⁰ A majority of patients achieved their goals within 12 weeks.

KEY LEARNINGS: GAS provides a collaborative approach to developing and assessing progress toward goals in patients with MDD, which contributes to positive treatment outcomes.

CASE STUDY #3

PRESENTER: Lee Jennings, MD, MSHS

CLINICAL AREA: Geriatrics

PURPOSE: Disease-based outcomes only address one condition and focus on medical outcomes with universally applied population health goals that may not capture what is most important to the patient. There has been a shift from disease-based outcomes to patient-defined outcomes,³⁶ which can span multiple conditions and include both medical and nonmedical outcomes.

METHOD OF IMPLEMENTATION: A pilot study using GAS, carried out with patient-caregiver dyads where the patient had dementia, found that 74% of patients met or exceeded goals.¹⁴

RESULTS: Clinicians and patients felt that GAS added value to their care, but also added time to the encounter. Additionally, identified goals were not commonly related to medical care, but to broader aspects of quality of life or caregiver support.

KEY LEARNINGS: Goal setting using GAS can be incorporated into care for persons with dementia, to establish and attain person-centered goals.¹⁴



IMPLEMENTING GOAL ATTAINMENT SCALING: ASSURING CONSISTENCY, FEASIBILITY AND VALIDITY

SMART Goals

Goals should be SMART in order to be actionable and sustainable.³³ SMART criteria (specific, measurable, achievable, relevant, time-bound) are commonly used to guide creation of goals and to assess goal quality.³⁷ Table 2 describes SMART criteria related to rating the quality of goals and scaling using GAS.

TABLE 2: SMART Criteria and Common Problems with GAS in Clinical Care*

SMART	GAS CRITERIA	PROBLEM
Specific, Measurable	Baseline established	Confusion about improvement vs. maintenance goal
	Unidimensional	Goals with multiple parts "Reduce falls and continue playing bingo"
	Precise levels	Quantities overlap between levels Levels not precise enough to be objective "Be more independent in self-care"
	5-category scale	Most often, -2 and +2 are left blank
Attainable	Realistic/Feasible	Can be hard to determine from data "Walk 2 miles in 15 minutes"
	Goal difficulty assessed	Missing either patient or clinician scoring
	Action plan	Not related to goal, too vague; restates goal without other detail "Build on current routine"
Relevant	Patient-centered	Goal is clinician-centric; repeated for multiple patients; generic. "Have privacy form signed"; "Get physical exam"
Time-bound	Follow-up established	All goals had follow-up within 6 months

* Taken from Case Study 3: Lee Jennings, MD, MSHS, Using Goal Attainment Scaling with Dementia Patients.

Goal Inventories

Many GAS experts use goal inventories, which can assist clinicians with identifying goals and ensuring more consistent, SMART goals, and allow patients to select from a pre-defined set of goals. Goal inventories may also simplify implementation and provide structure for goal selection and training.³⁷⁻³⁹ Some goal inventories were developed through focus groups; others were developed through clinical experience. Panelists identified several key elements of creating and using goal inventories (Table 3).

TABLE 3: Goal Inventories: Key Elements

KEY ELEMENT	DESCRIPTION/EXAMPLES
Use as discussion guide	<ul style="list-style-type: none"> Provides a streamlined way to guide patient discussions and identify goals. Provide inventory in advance so patients and care partners can consider goals before having the goal-setting conversation.
Streamline implementation	<ul style="list-style-type: none"> Use of goal inventories may simplify implementation and provide structure for goal selection and training but may also restrict goal options for patients.
Target to specific patient population	<ul style="list-style-type: none"> Pre-established goals can be targeted to specific patient populations to ensure they are relevant and valid. Continuously review the inventory with the specific patient population to ensure goals resonate.
Accessibility	<ul style="list-style-type: none"> Use pictures and videos to ensure all individuals can participate, including those with intellectual disabilities. Develop materials for all reading and writing levels. Supplement goal inventory with educational materials to assist patients with aphasia or other cognitive disorders.
Refine and update frequently	<ul style="list-style-type: none"> Inventories need to be evaluated and updated frequently to ensure they do not become static.
Evaluate use by clinician	<ul style="list-style-type: none"> Monitor goals being used by clinicians to ensure they are listening to the needs/desires of the patient and not using the same goal for all patients.

Using Multiple Goals

Some users of GAS limit the number of documented and scaled goals; others may use 5 or more goals.⁴⁰⁻⁴² Panelists suggested that scaling single vs. multiple goals could depend on the care setting. Setting multiple goals makes it more likely that a patient will, on average, meet some goals. When multiple goals are identified, some clinicians require the patient to rank them by importance and address the most important goal first. NCQA person-centered outcome measures currently require only one goal to be measured and tracked over time, to decrease burden and time for implementation. Tracking and monitoring one goal will also ease data collection.

In general, goals are documented in multiple places in the electronic health record (EHR). Panelists noted that one challenge of goals-directed care is access to a shared EHR. Multiple practitioners need to be able to see and track goals in different areas of the treatment plan. All clinicians (e.g., social worker, geriatrician, occupational therapist, physical therapist) working with a patient, as well as the patient, need access to a shared system to view goal progress over time. Another limitation of goal identification and tracking is the limited time available during an outpatient visit, which may not allow time dedicated to setting goals. It can be easier to coordinate goal attainment scaling in an inpatient setting, because all practitioners have access to the same EHR in an inpatient setting.

Scaling and Scoring

Panelists agreed that having 5 scaling levels is appropriate and allows statistical differentiation. There was discussion on whether to use a 5-point scale or a 2-point scale, only scaling the current status (-1) and the expected goal (0), or, potentially, using a 6-point verbal scale known as the GAS-Light model. The traditional 5-point scale from Kirusek and Sherman denotes achievement as any score of 0 or above. A score of 0 means the patient achieved their expected goal. An assessment score of -2 or -1 means no progress was made, or the patient became worse than their baseline status. See Figure 2 for an example.

The GAS-Light model compared to the traditional 5-point scale provides an opportunity to rank progress as well as achievement of the goal.³³ Only the expected goal (0) needs to be defined and the current status documented. At follow-up, the clinician and patient walk through a script to get to the final score.

But with any scaling method, it is important to keep in mind that the defined scales should be individualized to the patient. Ultimately, the goal is about what the patient wants. Panelists agreed the patient should decide how goals are defined and scaled (with clinician confirmation). Identifying what matters most to a patient should be an ongoing conversation between clinicians and patients.

These conversations clarify the nuances of a patient’s goals. Both the patient and clinician should also be involved in assessing goal achievement. NCQA’s person-centered outcome measures require both the clinician and the patient to rate achievement based on the 5-point scale.

FIGURE 2



CLINICIAN TRAINING AND PERFORMANCE MANAGEMENT

Components of Training

Panelists emphasized the importance of consistent clinician training as key to successful implementation of GAS. Approaches and techniques discussed are described in Table 4.

TABLE 4: Clinician Training: Key Components and Examples

KEY COMPONENT	DESCRIPTION/EXAMPLES
Standardized programs	<ul style="list-style-type: none"> • Develop a clinician training and onboarding program that is easily accessible. • For example: <ul style="list-style-type: none"> ◦ A 2-hour online self-paced training course with real-world examples, role playing opportunities and time to practice. ◦ Videotaped training, along with checklists. ◦ Continuing Education credits for various professions.
Mentoring	<ul style="list-style-type: none"> • Create a mentoring model where clinicians more experienced with GAS provide feedback to those learning the method. • Once GAS is implemented into clinical practice, clinical mentors monitor intermittently to ensure consistency.
Feedback mechanisms	<ul style="list-style-type: none"> • Target improvement feedback to clinicians who may be struggling. • For example, create: <ul style="list-style-type: none"> ◦ Videotaped sessions followed by feedback from a mentor, to reinforce training. ◦ Continuous training opportunities reiterating the importance of GAS. ◦ Reminders to clinicians that meeting the goal is just as good as surpassing the goal.
Support tools	<ul style="list-style-type: none"> • Develop and use prompts, interview guides or goal inventories with predefined categories to guide clinician conversations for goal setting. • Create educational support tools to help prompt patients on the goal setting conversation before the visit. This proven method allows the patient to understand why the clinician wants to have the conversation, and why identifying goals is beneficial.

Supporting Consistent Implementation

Organizations can use different methods to support consistent and reliable implementation of GAS by clinicians. Examples include:

- Review and compare clinician GAS scoring using t-scores (as explained below).
- Review a goal’s quality over time.
- Have different clinicians score a patient’s goal, for an unbiased assessment of progress toward the goal.
- Provide consistent training across clinicians, including a standardized training program.
- Use goal inventories as a starting point for patients, decreasing implementation time.

To use GAS effectively and efficiently, there must be infrastructure in place with a core set of standard processes and materials for the goal setting process. There must also be a set of standardized resources, such as manuals and structured interview guides, to increase consistent use by an organization or team. Panelists mentioned the need for technologies and processes that rapidly, efficiently and securely capture the clinician-patient GAS process, including essential data. Prompts embedded in the EHR, to remind physicians to set goals, could increase the use of GAS in clinical practice.

Panelists also considered the importance of tying GAS to incentives. Without incentives to implement and use GAS, there may be minimal uptake by primary care physicians. Several panelists reiterated that documenting and monitoring goals in the EHR must also be part of the culture if there is to be a culture shift and consistent uptake in outpatient settings.

Using T-Scores

The t-score converts an ordinal scale to a normal distribution, allowing statistical analysis and assessment of reliability.³ T-scores can show a patient’s progress in settings where multiple goals are set and scaled. Clinical champions and administrators can also use t-scores to monitor appropriate clinician use of GAS when clinicians are using GAS on many patients to initiate quality improvement of the process. For example, if a clinician’s average t-scores are much lower or higher than those of other clinicians, then the effectiveness of the clinician’s use or knowledge of goal scaling can be examined. Panelists recommended using Kirusek and Sherman’s methods (1968) when implementing t-scores.¹⁸

DIVERSE POPULATIONS

Goal Identification and Scaling in Diverse Populations

Panelists discussed methods for ensuring successful use of GAS with diverse populations and many of these approaches would work in any population (Table 5).

TABLE 5: Diverse Populations: Key Elements for Goal Identification and Scaling

KEY ELEMENT	DESCRIPTION/EXAMPLES
Language	<ul style="list-style-type: none"> • Tailor language and goals to each population served. • Avoid using language that is too technical. • Create processes for working with individuals with low literacy and/or limited English proficiency. • Utilize interpreters, as appropriate.
Trust	<ul style="list-style-type: none"> • Mistrust of clinicians can lead to patients avoiding needed care. • A conversation about what matters most to a patient can make them feel vulnerable. • Trust building between clinician and patient is essential to a successful conversation about goals and scaling. • Ensure goals match the needs of the patient, not the needs of the clinician.
Community expertise	<ul style="list-style-type: none"> • Partner with patient and community organizations that focus on underrepresented groups, to identify techniques for approaching the conversation with patients from those groups. • Enlist community advisory boards to review GAS materials and provide feedback on their appropriateness for the community.
Continuous improvement activities	<ul style="list-style-type: none"> • Continuously review GAS materials to match the community and ensure that goals are not culturally biased. • Promote cultural competency training for clinicians.

Tailoring Implementation for Diverse Populations

Panelists discussed barriers and solutions for goal-setting conversations with diverse audiences. Patients with communication barriers (e.g., non-verbal, non-English speaking) need enough time with the clinician to communicate their needs and goals; however, the clinician may not always be the best person to define goals if there is a communication barrier. Individuals completing the initial patient intake should speak the same language as the patient. A care coordinator or social worker may be better at conversing with the patient, particularly when there are language barriers.

A clinician’s cultural competency should also be considered. Approaches to goal setting can differ by cultural background. Systemic racism can lead to care partners or patients feeling uncomfortable or fearful of telling the truth in goal-setting conversations. It may take time and multiple encounters to build trust. Educating patients about how they can participate in

shared decision making with their clinician is essential, and could be led by peer navigators or community health workers, who can act as cultural brokers between clinicians and patients.

Panelists also mentioned that not all patients understand that some diseases (diabetes, for example) can be controlled and managed through treatment and medication. Patient education on the disease and on disease management may lead to better goals and, ultimately, to achieving those goals. Mapping community resources can enable a clinician to bring that knowledge to the conversation, and can contribute to goal achievement. Panelists also noted that many of these recommendations can apply to all populations where goal setting and GAS are used.

ROADMAPPING THE FUTURE OF QUALITY MEASUREMENT

Digital Quality Measures

NCQA knows the future of quality measurement is based on developing digital measures administered at the point of care. Digitalized quality measures use a standards-based interoperability format, and are easier to implement because the files are machine readable, which reduces interpretation, recoding and human error, and allows standardized use across the care continuum.

Standardization encourages patient-specific care and measurement by tailoring outcomes to individual patients. Electronic clinical data help align quality measures with other use cases, such as interoperability and value-based payment models. Data may also decrease the measurement burden through digital standards and structured data, which will help promote an automated and consistent measurement process, instead of the manual and retrospective methods currently relied on for quality measurement. Digital formats have the potential to increase patient-centeredness while increasing clinician efficiency.

Goal Attainment Scaling Applications

Three organizations demonstrated how GAS is being implemented in different settings using digital applications. These types of applications are likely to be the future of GAS—they offer the ability to access GAS anywhere, which increases access for patients and care partners.



Goal Scaling Solutions™, is a customizable digital tool for incrementally improving outcomes for participants and programs.⁴³

SETTING/POPULATION: Individuals or programs.

TECHNOLOGY: HIPAA-compliant website or smartphone application.

FEATURES: Goals can be updated anywhere; goal libraries allow selection from pre-scaled goals; goal activity communication between participants and clinicians; and goal tags allow similar goal to be reported together. The tool's home page displays the organization to which a clinician belongs, the clinician's caseload and the number of goals. Participant activity pages demonstrate progress toward goals for clinicians and participants, and also allow comments and uploading of additional documentation.

David Burnes, PhD, demonstrated a GAS system developed for responding to and intervening in elder abuse.

SETTING/POPULATION: Elder abuse response program.

TECHNOLOGY: Website.

FEATURES: A pre-populated menu of frequently encountered goals alleviates the clinician burden of creating and scaling goals "from scratch" for each patient. Each goal has a pre-populated 5-point template that allows practitioners to select and edit relevant goals for a patient. An optional summary of assigned goals, the current score and interpretation of the total summary score can be added when a case is closed.

GoalNav®, Ardea Outcomes' application, is a configurable e-clinical platform designed to collect GAS and other data in a variety of use cases.⁴⁴

SETTING/POPULATION: Used in regulated clinical trials, post-market studies and regular care planning in clinics with clinicians, patients or caregivers.

TECHNOLOGY: Modular, secure and device-agnostic cloud-based data capture platform specifically geared for collecting patient-centric data for research studies and care planning.

FEATURES: GoalNav® is a flexible application which can be configured for any type of GAS implementation, including open-ended GAS, GAS with goal inventories for goal identification, any permutation from 2 to 5-point scaling, and clinician-facilitated or patient/caregiver-driven goal setting in standard, hybrid, or fully remote research studies. When goal inventories are used, the option is always provided to identify goals de novo if preferred.

Recommendations

Several areas for recommendation on the use of GAS emerged from the convenings and are described throughout this paper. Table 6 is a compilation of panel recommendations from both convenings.

TABLE 6: Panel Recommendations: Goal Attainment Scaling Implementation

CATEGORY	RECOMMENDATION
Goals	<ul style="list-style-type: none"> Should be SMART (specific, measurable, achievable, relevant, time-bound) in order to be actionable and sustainable.
Goal Inventories	<ul style="list-style-type: none"> Use as a discussion guide to facilitate goal setting between clinician and patient. May simplify implementation and provide structure for goal selection and training but may also restrict patients' goal options, if used exclusively. Target to specific patient populations and have those populations review to ensure relevance and validity. Should be accessible by all individuals; use pictures and videos, appropriate language, larger font size; supplement with patient education materials. Refine and update frequently. Monitor how clinicians are using them, to ensure they remain patient-centered.
Multiple Goals	<ul style="list-style-type: none"> Rank by importance to help provide focus on what matters most to the patient and the order of completion. Clinicians and patients should have access to the goals, to be able to assess progress.
Scaling and Scoring Goals	<ul style="list-style-type: none"> Both clinician and patient should rate progress on the goal. The traditional 5-point GAS scale can be cumbersome and time consuming. Limiting documentation to current status and goal (GAS-Light) could decrease implementation time and increase uptake of multiple goals. With all scaling methods, defined scales should be individualized to the patient.
Clinician Training	<ul style="list-style-type: none"> Provide consistent, standardized training, along with ongoing feedback from mentors experienced with GAS. Create feedback mechanisms for improvement, such as videotaping clinicians implementing GAS, for review and feedback. Develop clinician support tools, such as interview guides and prompts, or patient education materials that prepare the patient for a goal-setting visit. Train clinicians to start with broad values and narrow down to specific goals.
Consistent Implementation	<ul style="list-style-type: none"> Incorporate t-scores to monitor appropriate clinician use of goal setting and GAS, and initiate quality improvement of the process. Ensure data infrastructure is in place to provide efficient, effective data collection and sharing. Review goal quality intermittently to ensure appropriate implementation of GAS. Patient education on the disease and disease management may lead to better goals and outcomes. Avoid language that is too technical. Implement community advisory boards to review GAS materials and provide feedback on their appropriateness for the community. Patient education about participating in shared decision making with their clinician is essential and could be led by peer navigators or community health workers. Mapping community resources provides clinicians with that knowledge and can contribute to goal achievement.

CATEGORY	RECOMMENDATION
Diverse Populations: Identifying and Scaling Goals and Tailoring Implementation	<ul style="list-style-type: none"> • Tailor language to the patient population being served. • Create processes for working with individuals with low literacy and/or limited English proficiency. • Trust building between clinician and patient is essential to a successful conversation about goals and scaling. • Partner with patient and community organizations that focus on underrepresented groups, to identify techniques for approaching the conversation with patients from those groups. • Promote cultural competency training for clinicians. • Patients with communication barriers (e.g., non-verbal, non-English speaking) need to have enough time with the clinician to communicate their needs and goals. • A care coordinator or social worker may be better at conversing with the patient, particularly when there are language barriers. • Individuals completing initial patient intake should speak the same language as the patient. • Clinician cultural competence is critical to goal setting. Peer navigators can be cultural brokers between clinician and patient. • Review GAS materials regularly to match the community and ensure materials are not culturally biased.
Digitalization	<ul style="list-style-type: none"> • Develop digital quality measures for easier implementation. • Use of digital measures can decrease the measurement burden through standardized and structured data and can promote an automated and consistent measurement process. • Aids in communication between patients and providers about goal attainment progress.

Conclusions

Goal setting can be an important tool for managing adults with complex conditions and can improve outcomes and overall functioning in a variety of patient populations. Goal attainment scaling is one method to measure and track what matters to patients and drive care toward reaching a goal. We learned from our convenings that successful implementation of GAS can be achieved through structured training, standardized practices and planning.

There are limitations to GAS implementation: lack of EHR access by all members of the health care team; limitations on clinician time and broad use of GAS; lack of care coordination in the outpatient setting. Looking to the future, digital methods of GAS implementation may help to alleviate some of these. Applications that can be used by both clinician and patient to select and track goals may help facilitate goal setting and standardize GAS across the care continuum.

Clinician training is essential to the success of GAS. Our panel recommended consistent training, along with feedback from mentors experienced with GAS. Converting goal scoring to t-scores is also important in clinical practice because t-scores convert an ordinal scale to a normal distribution, allowing statistical analysis.

Goal directed care and GAS are appropriate for diverse populations and can improve health equity by driving care that matters. Key best practices are important, including clinician training in cultural humility; establishing trust between clinicians, the individuals seeking care and their care partners; paying attention to language and other solutions that address communication barriers; and involving community resources, peer navigators and community health workers.



Acknowledgements

NCQA appreciates the time, knowledge and perspectives of the diverse experts who participated in one or both of the convenings.

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TAKEDA PHARMACEUTICALS

The Advancing Best Practices for Goal Attainment Scaling convenings and this report were made possible with support from Takeda Pharmaceuticals U.S.A., Inc.

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