

Toward A National Standard For Service Intensity Assessment And Planning For Mental Health Care



THE LEVEL OF CARE UTILIZATION SYSTEM (LOCUS) FAMILY OF TOOLS

NATIONAL COUNCIL
for Mental Wellbeing

NOVEMBER 2023

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This paper was developed in partnership of the American Association for Community Psychiatry, the American Academy of Child and Adolescent Psychiatry and the National Council for Mental Wellbeing.



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Contents

Acknowledgements	2
Executive Summary	4
Introduction	10
The Need for a Standardized Process for Service Intensity Assessment and Planning.....	12
The Value of Uniform Assessment Processes at the Systems and Population Level:.....	12
The Need for a Common Language.....	12
The Need for Reducing Structural Disparities and the Negative Impacts of Bias.....	13
Federal Court Articulates Standards of Care for Services Intensity Assessment	13
Clinical Service Intensity: Current State of the Art.....	15
A. Goals of Multidimensional Assessment.....	15
B. Service Intensity Assessment and Planning in Clinical Care.....	16
C. Clinical Person-Centered Assessment and Treatment Planning Tools	17
D. Creating a Common Language for Service Intensity Assessment for All Stakeholders.....	18
Service Intensity Planning and Resource Management	19
Medical Necessity Criteria and Service Intensity Planning	19
Utilization Management and Service Intensity Planning	21
LOCUS Family of Tools.....	23
The Dimensional Assessment.....	24
Levels of Care or Service Intensity.....	25
Scoring Methodology.....	26
Systematic Implementation.....	27
Implementation Considerations.....	27
Defining Stakeholders’ Interests.....	27
Implementation Tasks for Payers and Providers.....	28
Implementation Considerations for Larger Systems and Managed Care Organizations.....	30
Research, Evaluation and Continuous Quality Improvement.....	31
Current Research.....	31
Need for Further Research.....	31
References	34

Executive Summary

PURPOSE:

Recent judicial, public policy and legislative developments have underscored the need for a paradigm shift in the decision-making processes that determine what services and supports will be made available to individuals with behavioral health (BH) needs. While this shift will entail a variety of changes, the top two priorities are:

1. These processes should be uniform and standardized so as to optimize equitability and minimize disparities across settings and populations.
2. These processes should be transparent and interactive, employing a common and understandable language so as to enhance effective collaboration among the key stakeholders, beginning with the persons being served and their families.

The purpose of this white paper is fourfold: 1) to elucidate the background, concepts and best practices for service intensity assessment and planning within this context; 2) to describe the necessary and desirable characteristics of standardized processes to do so; 3) to describe the LOCUS family of tools (LOCUS FT) and the rationale for promulgating these tools as a uniform national standard for service intensity assessment and planning for mental health (MH) care, in conjunction with the American Society for Addiction Medicine (ASAM) Patient Placement Criteria for substance use care; and 4) to delineate next steps for widescale dissemination, training, implementation, evaluation and research on these processes.

Box 1: Service Intensity and Planning Tools described in this white paper: The LOCUS FT (the first three in the list) and ASAM Criteria.

LOCUS: Level of Care Utilization System; developed by the American Association for Community Psychiatry (AACCP) in the 1990's for adults with BH needs.

CALOCUS-CASII: Child and Adolescent Level of Care/Service Intensity Utilization System; co-developed by AACCP and the American Academy of Child and Adolescent Psychiatry (AACAP) for those ages 5-18 with BH needs.

ECSII: Early Childhood Service Intensity Instrument; developed by AACAP in 2009 for children ages < 5 with BH needs.

ASAM Criteria: Developed by ASAM in the 1990s for adults with substance use disorders (SUD).

DEFINING SERVICE INTENSITY ASSESSMENT AND PLANNING:

Service intensity assessment and planning is the process of determining the “correct” amount and types of services and supports that best address an individual’s needs at a given point in time. Components of service intensity include, but are not limited to: the setting in which care is delivered (e.g., residential vs. community), the intensity and type of staffing (e.g., medical vs non-medical),



the frequency of contact, the amount of care coordination and case management and the intensity of programming provided. “Correct” implies the goal of finding the optimal balance between the quality of services and supports (i.e., those most likely to yield the best outcomes) and resource intensity (i.e., costs) and doing so in the least restrictive setting that is safe.

THE NEED FOR A STANDARDIZED PROCESS FOR SERVICE INTENSITY ASSESSMENT AND PLANNING

The processes by which such decisions are made should be as consistent as possible across settings so as to enhance equitability. These processes should be easily quantifiable to allow for benchmarking across settings and populations and ongoing tracking of potential biases or disparities. They should be complementary to other clinical assessments, such as diagnostic assessments. A uniform or standardized process for service intensity assessment and planning requires these three components:

1. A structured clinically driven method of assessing an individual’s current needs, risks, strengths and environmental stressors and supports at a given point in time.
2. Standardized definitions of a continuum of specific levels of service intensity, or “levels of care” (LOCs), each with specified types and amounts of services and supports.
3. A standardized crosswalk or algorithm that matches each individual’s array of needs to a particular level of service intensity.

DEFINING A STANDARD CONTINUUM OF SERVICE INTENSITY OR LEVELS OF CARE

Each LOC provides guidance as to the appropriate service array that should be made available, the staffing for that service array, the settings in which such services should take place and the amount of contact and frequency with which they should be deployed. A person-centered individualized treatment plan can then be developed within that LOC, making optimal use of local resources.

At this systems level, such a standardized continuum additionally allows for ongoing continuous quality improvement for resource allocation. The capacity to easily benchmark service utilization both within and across systems is a powerful tool to identify gaps or imbalances in the available service array, reallocate resources within systems when feasible and plan or advocate for additional resources otherwise, armed with clear and understandable data demonstrating the rationale.

THE NEED FOR A COMMON LANGUAGE ACROSS STAKEHOLDERS

Standardized processes for service intensity assessment and planning should be as transparent and understandable as possible to all those involved or impacted in order to enhance and facilitate meaningful, efficient communication and collaboration among stakeholders. These include:

1. Persons being served, along with their families and natural supports.
2. Providers of those services and supports.
3. Payers for those services and supports.
4. Population health managers.

WHY NOW? RECENT JUDICIAL, PUBLIC POLICY AND LEGISLATIVE DEVELOPMENTS USHERING IN A PARADIGM SHIFT

The Wit v. United Behavioral Health (UBH) court decision in 2019, detailed in this report and elsewhere (Appelbaum, 2019; National Council, 2020), directly addressed the potential bias in having service intensity and planning processes developed by entities who stand to benefit financially by having more restrictive criteria for the most expensive services. But who should develop such criteria and what principles should those criteria be based on? The court suggested that these criteria should be drawn from those developed by the relevant professional organizations when available, pointing specifically to the LOCUS FT and the ASAM Criteria as exemplars. The court further articulated a set of eight principles referred to as “Generally Accepted Standards of Care” (see box 2) which should characterize service intensity and planning processes going forward. If these principles were faithfully applied on a large scale, it would reflect the most significant paradigm shift in BH care planning and financing since the rise of managed care in the late 1980s.

Since 2019, several states and other large public entities have enacted policies that require payers of BH services that they oversee to mold their service intensity and planning processes so as to be consistent with the principles delineated in *Wit* (New York State Office of Mental Health, 2019). Most significantly, the state of California enacted legislation that requires all commercial payers of BH services to use the LOCUS FT and ASAM Criteria for MH and substance use service determinations respectively (California Insurance Commissioner, 2020). Several other states are in various stages of developing or enacting similar legislative mandates. It is essential to immediately adopt standardized service intensity and planning processes to address long-standing racial and ethnic disparities in mental health care and limit the impact of bias on decisions surrounding health care utilization.

Box 2: The “Generally Accepted Standards of Care” Delineated in the *Wit* Case

1. Effective treatment requires treatment of the individual’s underlying condition and is not limited to alleviation of the individual’s current symptoms.
2. Effective treatment requires treatment of co-occurring MH and substance use disorders (SUDs) and/or medical conditions in a coordinated manner that considers the interactions of the disorders when determining the appropriate level of care.
3. Patients should receive treatment for MH and SUDs at the least intensive and restrictive level of care that is safe and effective.
4. When there is ambiguity as to the appropriate level of care, the practitioner should err on the side of caution by placing the patient in a higher level of care.
5. Effective treatment of MH and SUDs includes services needed to maintain functioning or prevent deterioration.
6. The appropriate duration of treatment for MH and SUDs is based on the individual needs of the patient; there is no specific limit on the duration of such treatment.
7. The unique needs of children and adolescents must be taken into account when making decisions regarding the level of care involving their treatment for MH and SUDs.
8. The determination of the appropriate level of care for patients with MH and SUDs should be made on the basis of a multidimensional assessment that takes into account a wide variety of information about the patient.



WHAT WOULD INTENSITY PLANNING CONSISTENT WITH THE “GENERALLY ACCEPTED STANDARDS OF CARE” PRINCIPLES LOOK LIKE?

Applying the principles delineated in Wit (see box 2 above) as intended requires a very different approach to BH care planning and financing. Rather than a series of discrete dichotomous decisions about whether someone currently meets a particular payer’s medical necessity criteria for a given type of service, individuals with BH needs would be central to an ongoing, iterative multi-dimensional assessment process (principle 8), that is transparent to all parties (i.e., including the persons being served and their natural supports, and the providers as well as the payers). That assessment process would take into consideration the interaction of MH, substance use and medical conditions (principle 2). The process would strive to determine that mix of services and supports that were likely to be safe and effective in the least intensive manner and in the least restrictive setting (principle 3), but would err on the side of caution in cases of ambiguity or if services at a lower level were not available or appropriate for the individual (principle 4). Perhaps the most important change from current practices is that it would address those services and supports that would help people thrive over the long term rather than limiting the focus to acute symptomatology (principles 1 and 5). It would be fundamentally person-centered and individualized, avoiding a one-size-fits-all approach (principle 6). And while the overall process would ideally be common across the full range of ages, it would be sensitive to the reality that the types of services and supports needed for children are often quite different than those for adults (principle 7).

Ideally, it would do all of this in a manner that was accessible and understandable for all of those involved (again, including the persons served and their families), while being practically feasible and not overly time consuming, so as not to be a barrier to engagement or add significant administrative burden. It would yield demonstrably replicable results with a reasonable amount of training that could be efficiently delivered.

ROLE OF THE LOCUS FAMILY OF TOOLS

One or more of LOCUS FT are currently used in more than 26 states and in several international locations for acute and/or continuing care service intensity assessment and planning for various populations of individuals and families with MH (and co-occurring SUD) and/or intellectual and developmental disabilities conditions. The LOCUS FT in MH (as do the ASAM Criteria in SUD treatment) offer a unique opportunity to improve the standardization of these processes to the benefit of people served, as well as the providers, payers and population health leaders who serve them. The LOCUS FT provide a structured multi-dimensional assessment process, with specific anchors guiding scoring on each of six dimensions.

Table 1: The LOCUS FT dimensions are as follows:

1. Risk of Harm
2. Functional Status
3. Medical, Addictive and Psychiatric Co-morbidity as well as Developmental Disabilities in the CALOCUS-CASII and ECSII
4. Recovery Environment: A-Stressors B-Supports
5. Treatment and Recovery History
6. Engagement and Recovery Status

An associated scoring algorithm matches the matrix of dimensional scores to seven service intensity “bundles” that are described as LOCs.



This process provides a standard and common language for service intensity assessment and care planning nationwide.

RESEARCH AND EVALUATION

Validation studies of the LOCUS and CALOCUS were published in 1999 and 2006 respectively and included interrater reliability, test-retest reliability, construct validity and exploratory factor analysis (for full history see box 3 on page 11). One of the main objectives of the LOCUS FT is to reduce the influence of bias and discriminatory service recommendations and further research is needed to validate this hypothesis. As the LOCUS FT gain wider and more consistent utilization, further opportunities are emerging for systematic evaluation and improvement of the tools in relation to the needs of people, providers, payers and population managers. The development of additional research, evaluation and quality improvement data will further inform the best strategies for dissemination and implementation.



IMPLEMENTATION AND TRAINING

For the LOCUS FT to be used effectively and efficiently, both payers and providers need to systematically implement and apply them. Governmental agencies should implement the LOCUS FT throughout their region of responsibility to ensure uniformity and objectivity of benefits and to facilitate communication between all elements of the system. Insurance organizations should implement the LOCUS FT because their simplicity and clarity will facilitate utilization reviews and monitoring of treatment plans and better address the underlying conditions as opposed to just the acute crisis. Since the LOCUS FT were developed by clinical specialty organizations and published evidence of clinical validity, they provide a transparent alternative to proprietary criteria for payers to make service intensity decisions as part of utilization management while minimizing the risk of prioritizing financial considerations over fiduciary duties to meet patient care needs. Provider organizations should implement the LOCUS FT because they increase the efficiency and consistency of clinical interactions and/or to facilitate the incorporation of patient-centered and recovery-oriented care. Comprehensive training is essential to ensure demonstrable fidelity to the tool and to meet regulatory questions about consistent use of the tool. Training should be obtained from approved sources as certified by AACP and/or AACAP. Implementation should include establishing continuous quality improvement processes focusing on interrater reliability, the use of readings for treatment and transition planning, the availability of the full continuum of recommended services and the longitudinal monitoring of outcomes and service utilization at each level of care.

CONCLUSION: The need for standardized clinically driven service intensity assessment in the MH field is long overdue. A confluence of recent events has created urgency for a widely recognized and accepted standard of practice to do so. The LOCUS FT is well positioned to become the national standard for service intensity assessment across the age range for the MH field, along with ASAM Criteria for addiction treatment to serve that role. Opportunities exist to expand the appropriate utilization of these clinical decision support processes by creating broad strategies for implementation across providers, payers and state systems, along with continued research, evaluation and quality improvement.



Introduction

Recent judicial, public policy and legislative developments have underscored the need for a paradigm shift in the decision-making processes that determine what services and supports will be made available to individuals with behavioral health (BH) needs. While this shift will entail a variety of changes, the top two priorities are:

1. These processes should be uniform and standardized so as to optimize equitability and minimize disparities across settings and populations.
2. These processes should be transparent and interactive, employing a common and understandable language so as to enhance effective collaboration among the key stakeholders, beginning with the persons being served and their families.

Four existing service intensity assessment criteria developed by non-profit clinical specialty associations are in wide use and have recently been identified as reflecting generally accepted standards.

The purpose of this white paper is fourfold: 1) to elucidate the background, concepts and best practices for service intensity assessment and planning within this context; 2) to describe the necessary and desirable characteristics of standardized processes to do so; 3) to describe the LOCUS family of tools (LOCUS FT) and the rationale for promulgating these tools as a uniform national standard for service intensity assessment and planning for mental health (MH) care, in conjunction with the American Society for Addiction Medicine (ASAM) Criteria for substance use care; and 4) to delineate next steps for widescale dissemination, training, implementation, evaluation and research on these processes.

Service intensity assessment and planning is the process of determining the “correct” amount and types of services and supports that best address an individual’s needs at a given point in time. “Correct” implies the goal of finding the optimal balance between the quality of services and supports (i.e., those most likely to yield the best outcomes) and resource intensity (i.e., costs) and doing so in the least restrictive setting that is safe.

Three of the four broadly used service intensity planning tools comprise LOCUS FT:

- The Level of Care Utilization System (LOCUS) for adults, developed by the American Association for Community Psychiatry (AACCP)
- The Child and Adolescent Level of Care/Service Intensity Utilization System (CALOCUS-CASII) for youth ages 6-18, jointly developed by AACCP and the American Academy of Child and Adolescent Psychiatry (AACAP).
- The Early Childhood Service Intensity Instrument (ECSII) for children ages 0-5, developed by AACAP.

One or more of these tools are currently used in more than 26 states and in several international locations for acute and/or continuing care service intensity assessment and planning for various populations of individuals and families with MH (and co-occurring substance use disorder [SUD] and/or intellectual and developmental disabilities [IDD]) conditions.



Box 3: Historical Development of the LOCUS FT

Work began in 1995 and the first edition of LOCUS was released in May 1996. Three years after the LOCUS was created, AACP entered a partnership with the AACAP through the AACAP System of Care Committee to create a version of the LOCUS that is developmentally sensitive for children and adolescents ages 6-18 years. This was copyrighted jointly by both organizations as CALOCUS in 2001. In 2004, the AACAP developed an expanded training manual that elaborated the System of Care philosophy and provided additional exercises and guidance for the use of the instrument.

This expanded version was called the Child and Adolescent Service Intensity Instrument (CASII).

The CASII manual made minimal changes to titles of dimensions and specific anchor points in the CALOCUS instrument itself. Rather, the new manual expanded training information and emphasized that higher levels of service intensity did not necessarily require out of home placement when a sufficiently broad array of intensive home and community-based services, such as wraparound service planning and the involvement of natural supports, were accessible.

Over the years, the CASII manual has been updated three times, with in-person training of the CASII conducted in more than 30 states and three countries (Japan, Belgium and Canada). In addition to use in MH, it has also been used in child welfare and juvenile justice settings. In 2018, asynchronous online CASII training was created.

For many years, although the ratings systems were virtually identical, training and scoring of the CASII and CALOCUS were managed separately. But in 2020 the AACAP and AACP renewed their partnership and began working to merge the two instruments, which together became the CALOCUS-CASII, which was released in early 2021. The CASII asynchronous training was modified to be compatible with the merged CALOCUS-CASII manual.

In 2009 the AACAP Committee on Systems of Care, supported by experts in early childhood in AACAP, developed the ECSII, an instrument to address the needs of young children ages 0 to 5. This instrument is similar to CALOCUS-CASII in that it assesses the intensity of the child's service needs, uses a very similar multidimensional and transdiagnostic approach and algorithm and is based on a System of Care philosophy.

LOCUS 20 represents the 5th revision of the LOCUS instrument. Each modification addressed suggestions from the field, but the current rating system is little changed from the original version of the instrument. The current edition, reflecting the first changes introduced since 2010, contains no substantive changes to the rating system, so the reliability and validity of the instrument should not be impacted (see Testing sections).

The other service intensity assessment criteria is the ASAM Criteria for people served in SUD treatment settings, launched in 1991 as a means for clinicians to match patients to the most appropriate intensity of treatment (“level of care”) for SUDs and rapidly expanding in recognition as the definitive standard for service intensity planning for individuals (and co-occurring MH and/or IDD conditions) who need SUD treatment programs.

The ASAM Criteria relevant to treatment of those with SUDs have demonstrated that a structured, multi-dimensional approach to service intensity assessment and planning promotes better engagement in addiction services and reduces the detrimental effects of both under- and over-treatment on resource management as well as clinical outcomes. (Gastfriend, 2004; Krebs, 2003; Angarita, 2007; Stalvik, 2014) The ASAM approach to service planning is similar to the LOCUS FT in approach, structure and scoring. The ASAM Criteria differ from the LOCUS FT in being particularly focused on SUDs and having a more detailed assessment and decision algorithm.

THE NEED FOR A STANDARDIZED PROCESS FOR SERVICE INTENSITY ASSESSMENT AND PLANNING

The processes by which such decisions are made should be as consistent as possible across settings so as to enhance equitability. These processes should be easily quantifiable to allow for benchmarking across settings and populations and ongoing tracking of potential biases or disparities. A uniform or standardized process for service intensity assessment and planning requires these three components:

1. A structured method of assessing an individual's current needs, risks, strengths and environmental stressors and supports at a given point in time.
2. Standardized definitions of a continuum of specific levels of service intensity, or "levels of care" (LOCs), each with specified types and amounts of services and supports.
3. A standardized crosswalk or algorithm that matches each individual's array of needs to a particular level of service intensity.

THE VALUE OF UNIFORM ASSESSMENT PROCESSES AT THE SYSTEMS AND POPULATION LEVEL

The use of uniform, standardized processes for determining LOC needs at the individual level additionally allows for ongoing continuous quality improvement for resource allocation at the systems level. Gaps in available services at lower LOCs would be expected to result in overutilization of more intensive, costly and restrictive services. For example, areas lacking intensive community-based treatments, such as Assertive Community Treatment teams, are often overly reliant on hospital or other residential-based services for adults with severe mental illnesses. The capacity to easily benchmark service utilization both within and across systems is a powerful tool to identify such gaps, reallocate resources within systems when feasible and plan or advocate for additional resources otherwise, armed with clear and understandable data demonstrating the rationale.

THE NEED FOR A COMMON LANGUAGE

Along with inconsistencies in how these processes have been carried out across settings, they are often clouded by layers of administrative rules and complex, jargon-filled terminology. Standardized processes for such decisions should be as transparent and understandable as possible to all those involved or impacted. Though the widespread use of the Diagnostic and Statistical Manual of Mental Disorders (commonly known as DSM) diagnostic criteria has provided a common language for diagnosis in MH care throughout the United States and elsewhere, it is clear that diagnosis alone does not adequately predict or substantially inform the types or intensity of services and supports needed for specific individuals. MH intensity assessment enhances and facilitates meaningful, efficient communication and collaboration among stakeholders. These include:

1. Persons being served, along with their families and natural supports.
2. Providers of those services and supports.
3. Payers for those services and supports.
4. Population health managers.



THE NEED FOR REDUCING STRUCTURAL DISPARITIES AND THE NEGATIVE IMPACTS OF BIAS

Mental health care disparities, defined as unfair differences in access to or quality of care for specific racial and ethnic groups, are widespread in mental health. “Mental Health: A Report of the Surgeon General” and its supplement, “Mental Health, Culture, Race and Ethnicity”, document and conclude that racial and ethnic minorities have less access to mental health services than White people, are less likely to receive needed care and are more likely to receive poor quality care when treated. It is essential to immediately adopt standardized service intensity and planning processes to address racial and ethnic disparities due to provider bias and structural factors that disproportionately limit access, insurance coverage and other health care system operations.

FEDERAL COURT ARTICULATES STANDARDS OF CARE FOR SERVICES INTENSITY ASSESSMENT

On March 5, 2019, Chief Magistrate Judge Joseph C. Spero of the U.S. District Court for the Northern District of California delivered a groundbreaking ruling in the Wit case (Case No. 14-cv-02346-JCS)⁵. The court found that UBH wrongfully denied plaintiffs’ coverage for MH and substance use service benefits because UBH’s Level of Care Guidelines and Coverage Determination Guidelines were more restrictive than the generally accepted BH standards required of their plans. As part of its determination, the court articulated eight principles of effective evaluation and treatment that are consistent with generally accepted standards of care. These principles align with those utilized by the LOCUS FT and ASAM Criteria. This powerful declaration of generally accepted standards of care now serves as a legal benchmark for those seeking appropriate care and those advocating on behalf of others.

Prior to the court ruling, UBH adopted the LOCUS FT for utilization management (UM), while some state oversight entities have promoted the LOCUS FT as the new standard for acceptable tools for their regulated insurers to use. In 2020, the state of California passed landmark legislation requiring both public and private insurers doing business in the state to adopt and utilize service intensity assessment and planning tools that are developed by nonprofit professional organizations, specifically invoking the LOCUS FT as a key example. In 2021, Oregon and Illinois followed suit, as similar bills have cleared their state legislatures. New York has adopted regulatory policies consistent with the court’s decision. This has resulted in UBH and other major managed care companies, including those utilizing proprietary UM criteria to revise their UM processes to specifically incorporate clinically driven, professionally developed instruments such as the ASAM Criteria, LOCUS, CALOCUS-CASII and ECSII. The Wit decision has caused payers and state regulators to make significant moves to advance the use of publicly vetted, professional organization service intensity assessment tools for medical necessity and UM. The Wit decision was appealed, and on initial decision the appeal was upheld on the grounds that insurers are not required to provide coverage that covers the generally accepted standard of care. The courts finding that that the eight principles of effective evaluation and treatment are part of the generally accepted standards of care was not challenged by UBH and has not been specifically addressed in the subsequent litigation. As a result, there is urgency to understand, implement, evaluate and improve clinically effective service intensity assessment and planning. This includes delineating the role of the LOCUS FT in that process.

Accurate assessment of both individual and population service intensity needs and strengths is essential for ensuring both provision of effective BH services and equitable allocation of resources in a community, county or state. While standardized diagnostic determination is necessary, diagnosis alone does not determine the intensity of many services needed for treatment and support that are not diagnosis specific. There are multiple dimensions of service intensity assessment, independent of diagnosis (transdiagnostic), that must be considered in making those determinations. Individuals with BH needs need an ongoing, iterative multi-dimensional assessment process (principle 8), that is transparent to all parties (i.e., including the persons being served and their natural supports, the providers, as well as the payers). That assessment process should take into consideration the interaction of MH health, substance use and medical conditions (principle 2). The process should strive to determine that mix of services and supports that were likely to be safe and effective in the least intensive manner and in the least restrictive setting (principle 3), but should err on the side of caution in cases of ambiguity or if services at a lower level were not available or appropriate for the individual (principle 4). Perhaps the most important change from current practices is that the process should address those

services and supports that would help people thrive over the long term rather than limiting the focus to acute symptomatology (principles 1 and 5). It should be fundamentally person-centered and individualized, avoiding a one-size-fits-all approach (principle 6). And while the overall process would ideally be common across the full range of ages, it should be sensitive to the reality that the types of services and supports needed for children are often quite different than those for adults (principle 7). Overall, for a specific clinical presentation service, an intensity assessment provides guidance about the intensity of a range of clinical and supportive interventions that are needed, such as the type of service setting (e.g., inpatient or intensive outpatient), the level of medical supervision or the frequency of contact to meet a person's diverse needs for treatment and support. The service intensity assessment is an important component of person/family-centered service planning that is complementary to assessing diagnoses, diagnosis-specific treatments and person-centered recovery goals. None of the BH care service intensity considerations identified in this paper address supervision intensity or oversight for individuals related to correctional, court or juvenile justice supervision, as those are related to different principles, evidence and goals. These latter factors are beyond the scope of this paper.





Clinical Service Intensity: Current State of the Art

This section discusses how the concepts of needs assessments, medical necessity and UM are all components of best practices in service intensity assessment and planning.

A. GOALS OF MULTIDIMENSIONAL ASSESSMENT

To be efficient, effective and fair, multidimensional assessment should achieve the following goals, starting with a focus on a common language for persons served and service providers:

- Allowing individualized, person-centered service planning and monitoring of progress in treatment.
- Using standards that are broadly acceptable and uniformly applied.
- Not requiring significant additional time or expense.
- Allowing integrated management by service providers.
- Informed by evidence or outcomes.
- Operating with a full array or continuum of services.
- Maintaining a balance between quality and cost concerns.

Individualization means that rather than trying to fit a person's needs into existing services, a unique plan is developed to meet that individual's needs. Providers must be trained and proficient in using efficient instruments to perform service intensity assessment. Complexity of service needs is anticipated.

Overarching Design Elements: To attain these goals through service intensity assessment instruments, several principles should be followed. These instruments should be easy to use, concise, relevant and adaptable to a variety of circumstances. Multidimensional, integrative and quantifiable structures will provide the most useful and measurable formats for assessment. In addition, easy access and comprehension will empower persons served and facilitate collaboration.

Interactive Dimensions: The use of simple and relevant dimensions for assessment that are quantified to convey information easily, allow interaction between the ratings of each dimension, inclusive of social determinants of health, and provide complementary information to risk of harm and functional status to determine service intensity need.

Integration: Recognition that individuals often have or are faced with complex and co-occurring problems that interact with each other. Psychiatric, addiction, physical health problems and developmental needs for children and adolescents are all considered in a holistic assessment process.

Adaptability and Flexibility: LOCs are defined in a way that is applicable to a wide variety of care environments and can be customized to local circumstances and individual needs.

Ease of Use: These tools are easy to understand and can be used by a wide range of professionals and only require manageable amounts of time to complete assessments.

Empowerment: Person- and family-centered language that facilitates participation of service users and/or family members in their assessment and supports them to take charge of their recovery.

Treatment Planning: These tools help identify an individual’s strengths and needs, and the assessment profile helps support the creation of an individualized service plan within the array of services and supports available at the recommended service intensity level.

Reliability and Validity: These instruments show high levels of agreement for service intensity recommendations between various raters, and those recommendations are consistent with the decisions made by experienced clinicians.

B. SERVICE INTENSITY ASSESSMENT AND PLANNING IN CLINICAL CARE

Multidimensional Transdiagnostic Service Intensity Assessment and Planning

Assessment using multiple dimensions is considered the “best practice” for service intensity determination. This concept was introduced by the ASAM Criteria and has been supported by further research. The use of six discrete dimensions, originally introduced in the ASAM Criteria, fostered comprehensive, yet coherent assessment of disparate patient characteristics, such as medical vs. psychological needs and patient engagement readiness vs. recovery environment support. This model proved able to yield a beneficial degree of standardization in the ASAM Criteria, demonstrating good inter-rater reliability (Baker & Gastfriend, 2003). This clinical approach also demonstrated good potential for achieving convergent validity with established research instruments (Stallvik & Gastfriend, 2014; Stallvik & Nordahl, 2014).

The LOCUS FT use a similar best practice approach of multidimensional service intensity assessment. This will be outlined briefly here for illustration and then discussed in more detail later in the paper.

The LOCUS FT dimensions are as follows:

1. Risk of Harm
2. Functional Status
3. Medical, Addictive and Psychiatric Co-morbidity as well as Developmental Disabilities in the CALOCUS and ECSII
4. Recovery Environment:
 - » Stressors
 - » Supports
5. Treatment and Recovery History
6. Engagement and Recovery Status

The service intensity assessment systematically matches individuals’ and families’ dimensional ratings to specific defined service intensity “packages,” also called LOCs, that cover the entire continuum of care.

Continuum of Service Intensities: “Level of care” is an inexact term for describing the flexible array of services recommended for an individual with different levels of service intensity needs.

Intensity of services relates not only to frequency or intensity of the specific clinical interventions that might be chosen, but also to other variables that are relevant to the service intensity needs of the individual. The intensity or inclusion of the following elements in each LOC should be considered:

- **Setting:** E.g., secure residential, open residential, ambulatory, school, in home services.
- **Medical Involvement:** Daily medical management, weekly medical monitoring, no medical supervision on site with intermittent medical outpatient.
- **Nursing Involvement:** 24-hour skilled nursing, eight-hour skilled nursing, nursing on call.
- **Staffing:** E.g., therapists, peer/family professionals, primary care, care coordinators, etc. Staff should be considered for inclusion on the multi-disciplinary team.
- **Service Array:** Formal psychosocial, developmental and somatic clinical evaluations, treatments and care coordination



and informal supports including peer supports and other natural supports in the community supports such as faith-based organizations, etc.

- **Frequency and Length of Contact:** Daily for multiple hours to quarterly single sessions.

These elements of service intensity, while conceptually independent, are combined in specific service “packages” or programs in any community, ranging from inpatient hospitalization, various types and levels of residential treatment, partial hospitalization, various types and levels of intensive community based services (including home-based) and various types and levels of routine ambulatory services, each of which may include various types and LOCs coordination or case management to address multiple types of services or agencies addressing a variety of human service needs.

Applicability: Service intensity assessment and planning can be utilized for individuals and families across the lifespan for persons served with mental and substance use disorders in addition to other complex health and social service needs. Service intensity assessment and planning are also relevant for individuals with intellectual, developmental and physical disabilities. Cultural considerations and social determinants of health impact all of these considerations. A service intensity assessment tool may be used for initial service intensity (placement) recommendations or for determination of continuing care needs. The continuing process of assessing service intensity is based on dynamic understanding of the way service intensity needs fluctuate during the course of illness, so the assessment should be repeated with frequency of review varying with the LOC and whenever there is change in clinical status that affects scoring. In general, ratings should be repeated most frequently during periods of greatest acuity and instability. If the service intensity score remains relatively high, the level of care and treatment package should be reevaluated. In addition to individual clinical applications, service intensity assessment tools can be used to characterize the range and capacity of services for a given population, for “acute care determinations” in crisis service settings and for “continuing care determinations” to monitor and plan service intensity needs for individuals and populations over time. The independence of service intensity level makes service intensity assessment and planning useful in non-clinical settings, such as the education, child welfare and justice systems (Pumariiega, 2019; Pumariiega, 2014).

C. CLINICAL PERSON-CENTERED ASSESSMENT AND TREATMENT PLANNING TOOLS

Service intensity assessment should be a collaborative process between the person or family served and service providers, as well as between providers/consumers and payers. Service intensity assessment is only one component of person- or family-centered service planning and medical necessity determination for UM purposes. Other critical components of treatment planning, medical necessity determination and utilization UM that are not themselves complete Service Intensity Assessment and Planning (LOC) Tools are listed below:

Diagnoses: Diagnosis of a specific mental disorder is not in general predictive of the level and general type of services needed, especially given that many people present with multiple diagnosable conditions at any one time and over time, and have varying functional challenges at different times even when symptoms and history reflect one consistent diagnosis (e.g., bipolar disorder). Diagnosis is helpful in choosing specific types of therapy and medications within a general service intensity level. The increasing use of CPT Z codes – a special group of codes provided in ICD-10-CM for the reporting of factors influencing health status and contact with health services – is an acknowledgment of the limitations of diagnosis of a specific illness alone in making treatment decisions.

Best Practice Interventions Matched to Need: Another component of service planning is the identification of the array of best practice interventions that are available and appropriate for the treatment of the condition. These interventions then become options in the collaborative planning process with the person served. However, it should be clear that diagnosis alone does not provide sufficient information for selecting an intervention. As an example, electroconvulsive therapy (ECT) is an evidence-based intervention for major depression, but that does not mean that everyone with that diagnosis should receive that intervention.

Symptom Severity Scales: Common examples of symptom severity scales include the PHQ-9 for depression, Columbia-Suicide

Severity Rating Scale for suicidality (commonly known as the C-SSRS) and the Clinical Institute Withdrawal Assessment Scale for measuring alcohol withdrawal severity. These scales contribute helpful information for both service recipients and service providers for determining which best practice interventions to use, at what “dosage” and at what level of urgency. They also allow for the objective measure of improvement in syndromic severity.

Comprehensive Needs and Functional Assessments: Individuals of all ages with BH conditions commonly experience needs and challenges from functional impairments in multiple life domains. These needs and functional impairments must be identified in the process of assessment in addition to diagnoses and symptoms and addressed appropriately in the context of service planning. The needs identified arise from a combination of the individual’s functional impairments and factors in their social environment (including Social Determinants of Health). Frequently (though not universally) used tools that provide a common language to identify and quantify service needs and functional impairments include the Child and Adolescent Needs and Strengths, Adult Needs and Strengths, Child and Adolescent Functional Assessment Scale (CAFAS), Multnomah Community Assessment Scale (ref 24), Daily Living Activities–20 (DLA-20) and others. These tools assess functional impairments and factors that can support individuals or make functioning more difficult for them but do not independently define or predict the service intensity needed for maximizing an individual’s successful community tenure. Tools that bridge those areas have the benefit of helping both providers and the person served access a range of services that will support their needs.

D. CREATING A COMMON LANGUAGE FOR SERVICE INTENSITY ASSESSMENT FOR ALL STAKEHOLDERS

Structured service intensity assessment tools are vital components of standardizing the assessment process that create a common and transparent language for use by individuals and families receiving services, providers, payers and population health managers. The current tremendous variability among payers, providers and service recipients in how service intensity determinations are made creates confusion and dispute, while potentially impacting inequities in service delivery and access. A shared framework from a family of tools for service intensity assessment and planning allow uniform clinical, fiscal and regulatory functions to be accomplished in a person- and family-centered manner. This is particularly beneficial for individuals and families with complex needs. A common language across the lifespan helps bridge discontinuities of care that can occur at times of transition, such as from the child and adolescent system of care to the adult system of care. For children and adolescents, it also facilitates treatment planning and the coordination and continuity of care among involved child serving agencies (e.g., child welfare, MH, education, juvenile justice, etc.).

The needs of major stakeholders are better served in the following ways:

- Persons served by actively participating in the service intensity assessment are better positioned to engage in transitions toward higher or lower service intensity as steps toward their recovery goals.
- Providers benefit from standardized clinical decision-support to make more objective and equitable service intensity recommendations that advance the best interests of people served.
- Payers can conduct review and approval of reimbursement for treatment services based on generally accepted professional standards and can delegate most service intensity decisions to providers using these tools, eliminating considerable administrative expense. Consistent use of uniform tools also allows automation of the decision process, which makes decision resolution timely and efficient and levels the playing field across payers.
- Population health managers can utilize a standardized framework to assess the capacities for acute and ongoing services needed to adequately provide services to a population.



Service Intensity Planning and Resource Management

The preceding sections focused on prioritizing service intensity assessment and planning as a clinical task. Systematic application of service intensity assessment tools can also allow providers to make decisions about both care and resource use to promote efficiency because they eliminate costly redundancies and micromanagement. This section focuses on the relevance of service intensity assessment and planning to payers and population health managers and delineates the relationship of service intensity assessment as a clinical function to the concepts of resource management, medical necessity determination and UM.

Payers (e.g., Medicaid agencies, managed care organizations (MCOs), commercial insurance plans) and population health managers (e.g., Veterans Administration, state administrators, accountable care organizations) are regularly faced with the challenge of achieving high quality outcomes for persons served while having limited resources available for populations with complex needs. This requires payers and population health managers to be constantly engaged in seeking mechanisms for effective resource management, ensuring that people are neither underserved nor overserved with respect to the community standard of care. Payers and population health managers also must ensure that resources expended and insurance payments disbursed are clinically appropriate and consistent with professional standards and the generally accepted standard of care for the individuals or families served to meet their legal and contractual requirements. Service intensity assessment and planning and appropriately matching resources to objectively determined service intensity determinations (which generally impact service cost) are essential elements of effective resource management.

The LOCUS FT offer a common language and opportunities for provider/payer alignment in pursuing goals with the Quadruple Aim to enhance patient experience, improve population health, control costs and improve the work life of health care providers, including clinicians and staff. “Patient experience” may be improved by more consistently and objectively matching services to needs. Access and population health may be improved by using LOCUS FT to understand where additional service levels need to be developed for a given community. Costs may be reduced by controlling inappropriate overutilization and underutilization. Health care providers’ work-life may be improved by facilitating more transparent discussions about service intensity planning, thereby reducing friction and conflict with payers.

MEDICAL NECESSITY CRITERIA AND SERVICE INTENSITY PLANNING

For a person to be eligible for third party payment for a given service, standards of medical necessity must be met. These standards are either set by law or contract, but in practice are determined first by the provider of record and then potentially by a third-party reviewer for final authorization or a decision of an appeal for services that were not authorized.

For example, the U.S. government defines “medical necessity” as “Health care services or supplies needed to diagnose or treat an illness, injury, condition, disease or its symptoms and that meet accepted standards of medicine.” <https://www.healthcare.gov/glossary/medically-necessary/>

The American Medical Association (AMA) and American Psychiatric Association (APA) both define medically necessary services as follows:

- Health care services or products that a prudent physician would provide to a patient for the purpose of preventing, diagnosing or treating an illness, injury, disease or its symptoms in a manner that is:
 - (a) in accordance with generally accepted standards of medical practice.
 - (b) clinically appropriate in terms of type, frequency, extent, site and duration.

- (c) not primarily for the economic benefit of the health plans and purchasers or for the convenience of the patient, treating physician or other health care provider.

<https://policysearch.ama-assn.org/policyfinder/detail/H-320.953?uri=%2FAMADoc%2FHOD.xml-o-2625.xml>

Service intensity is generally one of the most important considerations because it reconciles and considers in aggregate the overall types and amounts of services across the individual's overall needs and array of individual services. However, service intensity is not the only consideration in determining medical necessity; other considerations, for example, involve diagnosis and matching treatments to diagnosis, as well as accounting for other aspects of an individual's needs and support systems.

The Wit decision supported the AMA definition in the court and found that service intensity assessment and planning are shaped by and a part of generally accepted standards of medical practice for determining clinically appropriate types, frequency, extent, site and duration of treatment. Because service intensity assessment impacts the cost of interventions over time, and because medical necessity is a prerequisite for payment, the development of criteria for service intensity assessment and planning to inform medical necessity determinations have become particularly important in the relationships between people receiving services, providers, payers and population health managers. The ongoing trend of expanding value-based payment arrangements is progressively moving providers toward also being the payers of care, which increases the need for clinically derived tools that objectively balance underutilization and overutilization.

Medical necessity determination criteria sets, commonly chosen and utilized by payers as part of their utilization management processes, are discussed in the next section. The use of multiple "medical necessity" determination criteria sets, many of which are developed by and for payers and focus on the dimension of severity/acuity, may lead to inconsistencies in clinical decision-making about service intensity and may suggest a lack of objectivity and fairness in clinical care (Sowers, 2002). However, when faithful to a comprehensive evidence base, practice guidelines, like those developed by non-profit clinical organizations, such as the APA, or even by for-profit corporations, can provide assistance with medical necessity determination for specific services and treatments within a given level of service intensity. For example, these guidelines may provide research-based guidance (as they might for specific medical procedures for specific medical conditions) for when a person experiencing major depression might appropriately be referred for electroconvulsive therapy (ECT) or transcranial magnetic stimulation (TMS). They might offer clinical pathways that can be utilized to guide appropriate treatment of psychiatric conditions in acute inpatient settings, such as the appropriate titration of medications for acute psychosis. While these guidelines might assist providers and payers with both clinical care and resource management, they are independent of and not a replacement for service intensity assessment and determination.

Medical necessity criteria are the core element of UM programs. The federal Medicaid Act does not have a definition of medical necessity. However, there are parts of the federal Medicaid statute related to the concept of medical necessity. Medicare will not cover services that "are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member."

Services must be covered in sufficient amount, duration and scope to reasonably achieve their purpose, and states cannot deny a mandatory service solely because of the diagnosis, type of illness or condition – e.g., 42 U.S.C. §§ 1396a(a)(10)(B), 1396a(a)(17); 42 C.F.R. § 440.230.

States must make all mandatory and optional Medicaid services available to children under age 21 and cover these services when needed to ameliorate a mental or physical condition of the child – e.g., 42 U.S.C. §§ 1396a(a)(10)(A), 1396a(a)(43), 1396d(a)(4)(B), 1396d(r).

Medicaid regulations allow states to place appropriate limits on a service, based on criteria such as medical necessity, 42 C.F.R. § 440.230(d), but do not define the term. So, state Medicaid programs (and their contracted managed care companies) can deny coverage for a particular treatment if the treatment is not medically necessary. Each state has defined the term "medical necessity" differently in their laws, regulations and contracts.



UTILIZATION MANAGEMENT AND SERVICE INTENSITY PLANNING

UM is related to both medical necessity and service intensity assessment, but also is distinct.

Commonly, however, UM is understood and defined by its role in helping payers manage health care costs (See textbox). While this is only a subset of the intended purpose of UM, it takes on enormous weight in determining which services will be paid for. Service intensity assessment is an important component of UM. Payers and population health managers utilize UM for both individual persons/families served – as well as for populations – as a methodology for constantly assessing whether “service intensity planning” matches severity of illness. This constant review process allows for continuing scrutiny to ensure that individuals and populations are not overserved or, ideally, underserved. UM relies on structured tools to determine whether the services provided are “medically necessary” in relationship to both matching interventions to diagnoses and needs, as well as ensuring that service intensity is neither too much, or theoretically too little.

In BH services, UM is usually operationalized by payers to emphasize processes to control overutilization of more expensive services (Bailit, 2002; Wickizer, 2002). UM may be done prospectively, retrospectively or concurrently. BH UM procedures focus more on real-time utilization review (UR) and include prior authorization, precertification, concurrent reviews and discharge planning, as well as a set of processes for appeals and peer reviews when there are disagreements between patients, BH providers, other providers and payers. The activities listed above when performed by a payer as UM involves review or real time oversight of the service planning activities (including service intensity planning) performed by a health care provider in collaboration with persons served. The common process for such UM/UR functions involves the provider or patient making a request for authorization of a particular type or intensity of service, and then the payer compares that request to a set of UM guidelines or criteria for that type or intensity of service. For each type of higher levels of service intensity (e.g., inpatient, residential treatment, intensive outpatient), the payer will usually have acuity-based criteria for admission, continuing stay and discharge. The process for requesting authorization for a type of service intensity followed by approval or denial is typical of payer-driven UM/UR; however, it is significantly different from proactive clinically driven service intensity assessment and planning, as guided by tools like LOCUS FT and the ASAM Criteria. This will be explained further below.

Utilization Management Definition

The Institute of Medicine Committee on Utilization Management by Third Parties found that UM has no single, well-accepted definition. In their report, the committee considered “utilization management as a set of techniques used by or on behalf of purchasers of health care benefits to manage health care costs by influencing patient care decision-making through case-by case assessments of the appropriateness of care prior to its provision” (Institute of Medicine, 1989).

To guide their UM/UR processes, unless there are contractual or regulatory requirements otherwise, many payers use UM criteria that was developed by themselves or another for-profit company for BH and medical care, rather than independent professionally developed service intensity planning tools that can be used collaboratively and proactively by persons served and providers. Some payers (including UBH prior to the Wit case) have developed their own criteria. Many payers use one of two commonly used proprietary UM criteria frameworks: the InterQual criteria and MCG (previously known as the Milliman Care Guidelines) (Sebastian, 2014) <https://www.mcg.com/client-resources/news-item/mcg-27th-edition-care-guidelines>. These guidelines implement BH UM using a similar framework as for medical UM, a request for service compared to a set of guidelines or criteria for approval or denial. All too often, these criterion sets focus on the dimensions of risk and acuity/severity, rather than taking a broader multidimensional perspective.

For higher levels of BH service intensity, both the process (request/approval or denial) and the criteria tend to focus more on resolution of acute symptoms (as found by the court in the Wit Decision) and diagnosis-specific care pathways to guide service in acute care settings, rather than on recommending the best service intensity package within a full continuum of LOCs or service intensity packages for continuing treatment and rehabilitation of the person’s mental illness and/or SUD. While these symptom-focused guidelines may be helpful for UM staff monitoring hospital care, this approach is often mismatched to the needs of

individuals with complex and multi-dimensional BH conditions that must influence accurate service intensity determination for ongoing treatment through a continuum of services over time. These complex conditions require more intensive services for longer periods of time for effective treatment that ameliorates disability and dysfunction and promotes a high quality of life.

This demonstrates the need for tools that can avoid both underutilization and overutilization of a level of service and supports transitions between levels of intensity of service. As noted earlier, this issue was addressed directly by *Wit*, along with recognition that using the type of proactive multidimensional service intensity assessment and planning represented by LOCUS FT and ASAM was more appropriately matched to ensuring that people received the right level of service intensity (neither too much nor too little) to address their underlying conditions, rather than just focusing on brief symptom control. Using the LOCUS FT as a component of UM was identified by *Wit* as better supporting both efficient and effective allocation of available resources and helping both payers and providers reduce both underutilization and overutilization of services by prompting providers to carefully consider the multiple dimensions contributing to the needs of the person served.

Figure 1: The *Wit* Decision: Appropriate Standards for Utilization Management

1. Effective treatment requires treatment of the individual's underlying condition and is not limited to alleviation of the individual's current symptoms.
2. Effective treatment requires treatment of co-occurring MH and SUDs or medical conditions in a coordinated manner that considers the interactions of the disorders when determining the appropriate level of care.
3. Patients should receive treatment for MH and SUDs at the least intensive and restrictive level of care that is safe and effective.
4. When there is ambiguity as to the appropriate level of care, the practitioner should err on the side of caution by placing the patient in a higher level of care.
5. Effective treatment of MH and SUDs includes services needed to maintain functioning or prevent deterioration.
6. The appropriate duration of treatment for MH and SUDs is based on the individual needs of the patient; there is no specific limit on the duration of such treatment.
7. The unique needs of children and adolescents must be considered when making decisions regarding the level of care involving their treatment for MH and SUDs.
8. The determination of the appropriate level of care for patients with MH and/or SUDs should be made on the basis of a multidimensional assessment that considers a wide variety of information about the patient.





LOCUS Family of Tools

The LOCUS FT was designed consistent with the principles and goals of service intensity planning described previously in this report.

The LOCUS FT have four main objectives:

- Provide a system for assessment of service needs based on six evaluation parameters.
- Describe a continuum of service intensity levels, characterized by the amount and scope of resources available at each LOC, in each of four categories of service.
- Create a methodology for quantifying and objectifying the assessment of service needs to permit reliable determinations for placement in the service continuum and to mitigate the effects of bias in decision-making.
- Facilitate clinical management and documentation.

Each of the LOCUS FT has six dimensions of assessment with specific scoring anchors for each dimension that generate a recommendation for a service intensity, or LOC, for individuals with mental illness, including those with co-occurring medical, developmental or substance use conditions. The six service intensity levels range from recovery management or basic services to medically managed intensive services, which is conceptually equivalent to hospitalization but can be provided in other settings. Each service intensity level supports care planning in four service areas: clinical, support, crisis stabilization and prevention and the care environment. The LOCUS FT are instruments designed to be recovery oriented by including consideration of recovery environment, history and engagement.

Box 4: The LOCUS Family of Tools have multiple potential uses:

At the individual client level:

- To assess immediate service needs (e.g., for clients in crisis) or when there is disagreement between clinician and payer about the need for a LOC.
- To inform short-term service planning and outcome monitoring processes.
- To provide valid, value-driven guidance for medical necessity determinations that will better meet the needs of clients in real world systems.
- To monitor the course of recovery and service needs over time.

At the system or population level:

- To plan system-level resource needs for complex populations over time and help identify deficits in the service array.
- To assist in the development of bundled payments or case rates for episodes of care for specific clinical conditions.
- To provide a framework for a comprehensive system of clinical management and documentation.
- To facilitate communication between systems of care regarding service intensity needs.
- To enhance equity and fairness in service planning decisions by reducing the variability and bias inherent in idiosyncratic, proprietary decision-making.

THE DIMENSIONAL ASSESSMENT

The dimensional assessment systems used by LOCUS FT determine the most appropriate level of service intensity for a client's needs. They accomplish this by requiring the selection of a numeric rating in each of six dimensions. The dimensional framework operationalizes most of the factors experienced clinicians would normally consider in making decisions about required service intensity and assures that those factors are considered consistently and in an unbiased manner.

In the dimensional assessment, there are six evaluation dimensions:

- 1. Risk of Harm:** This rating reflects the degree to which a person is at risk for harming themselves or others. This risk may be due to suicidal or homicidal ideations or to impaired judgment or impulse control resulting from intoxication or otherwise altered mental states. Criteria for this rating include factors such as suicidal or homicidal thoughts, intentions, ambivalence, history of attempts, impulsivity and availability of means. Criteria are also included that indicate the degree to which one's ability to keep themselves safe is impaired.
- 2. Functional Status:** This rating measures a person's level of function relative to their baseline functional status. The criteria consider the ability to interact with others, to maintain hygiene and activities of daily living and to fulfill role responsibilities and physical functions, such as sleep and weight fluctuations.
- 3. Medical, Addictive and Psychiatric Co-morbidity:** This rating measures potential complications to the course of the presenting or most prominent condition due to the coexistence of additional disorders, such as SUDs and IDD. The criteria specify the degree to which the presence of additional disorders prolong the course, increase the severity of or impede the ability to recover from the presenting condition. Withdrawal syndromes are considered as medical comorbidity in this context.
- 4. Recovery Environment:** This dimension assesses social determinants of health using two subscales – level of stress and level of support. Criteria for ratings on the stress scale include interpersonal conflicts or harassment, life transitions, interpersonal or material losses, environmental threats and perceived pressures to perform. On the support scale, criteria delineate the degree to which support is available from family, friends and professional sources and the likelihood that these supports will be able to participate in care.
- 5. Treatment and Recovery History:** This scale considers past experience and response to treatment and the durability of any recovery achieved. Criteria for this rating include the intensity of treatment experienced, the degree of success and the extent and durations of recovery periods. Recent experiences and responses are weighed more heavily than more remote episodes.
- 6. Engagement and Recovery Status:** This rating measures a person's capacity for change, and criteria on this scale include the ability to recognize one's difficulties, the current stage in the process of change, one's ability to engage with potential sources of aid and the ability to accept responsibility for maintaining health.

Each dimension has a five-point rating scale of impairment or strength. For each of the five possible ratings within each dimension, there are criteria, or anchor points, which fit that rating that are clearly defined. Only one criterion needs to be met for the rating to be selected in each scale. The highest rating in which at least one anchor point is met determines the severity rating for that dimension. By adding the scores in each dimension, a composite score is obtained. The composite score gives an overall indication of the level of need for a given client that results from this interaction between the scales. In addition, there are independent criteria, described below, that override the composite score when present. Instructions for the scoring of each dimension is contained in an introductory paragraph, which also describes what that dimension is designed to measure. When there is ambiguity about which rating is the best fit in a dimension, the higher rating should be selected. If there is uncertainty, it makes sense to err on the side of caution – a perspective adopted as the fourth bullet in Figure 1 identifying eight generally accepted elements of effective treatment that emerged from the *Wit* verdict.



In the CALOCUS-CASII there are two subscales in Dimension 6, one for the child and one for the caregiver, to recognize that active engagement in services is important for both the child and the caregiver. Only the scale with the highest numeric rating is used for the calculation of the composite score. Dimensions 3 (Co-occurrence of Conditions: Developmental, Medical, Substance Use and Psychiatric), Dimension 5 (Resiliency and Response to Treatment) and Dimension 6 (Engagement in Services) are named differently than the adult version. The ECSII is somewhat distinct from LOCUS and CALOCUS-CASII with regard to the dimensions used for assessment of the particular developmental needs of the young child:

- Degree of safety
- Child-caregiver relationships
- Caregiving environment
- Functional/developmental status
- Impact of medical, developmental or emotional/behavioral problems
- Services profile that includes involvement, fit of services for the child and family and effectiveness of service.

LEVELS OF CARE OR SERVICE INTENSITY

The LOCs in the LOCUS FT are unique and distinct from how LOCs are traditionally defined. These levels are best described as **levels of service intensity**. With these tools the LOC, or service intensity, is a flexible or composite concept. Each level of care is defined by a combination of service variables: the care environment, clinical services, support services and crisis stabilization and prevention services. A menu of available service options is constructed for each service intensity level, based partly on local resources, that fall within defined parameters. Some service elements may be available at more than one or several LOCs (e.g., supported housing), but overall, the number and types of service elements and the intensity and complexity of their application increases at the higher, more intensive LOCs. In most cases, care provided at the higher levels will be more costly as well.

In the LOCUS FT there are seven defined levels of service intensity. Basic services focus on universal prevention and health maintenance resources.

For each level, **care environments** are described. The **clinical services** that should be available at each overall service intensity level are described, which may include duration and frequency of therapies, degree of security or restrictiveness and access to specific professionals such as psychiatrists. **Support services** are also described for each level, and these are most commonly available at more than one level. They include elements such as service coordination and peer-to-peer support, supported housing and psychiatric rehabilitation. Occupational therapy or supported employment, recreational therapy and/or other informal supports may also be available in some locations. Each level will also have access to **crisis stabilization and prevention services** that will contain a similar service array across LOCs. These elements are typically related to the availability of additional resources in the event that the usual constellation of services becomes temporarily inadequate. They also describe measures taken to mitigate the impact of an illness and that facilitate transitions to less restrictive or protective environments.

In CALOCUS-CASII and ECSII, the names of the service intensity levels are slightly different from the LOCUS, but they follow the same graded format as LOCUS.

LEVELS OF CARE

Level Six	Medically Managed Residential Services
Level Five	Medically Monitored Residential Services
Level Four	Medically Monitored Non-residential Services
Level Three	High Intensity Community-based Services
Level Two	Low Intensity Community-based Services
Level One	Recovery Maintenance and Health Management
Level Zero	Basic Services: Universal Prevention and Health Maintenance

SCORING METHODOLOGY

Once scores have been assigned in all six dimensions, they are recorded on a worksheet or entered into the computer program. The composite score gives one indication of the proper level of service intensity. However, high scores (4 or 5) in the first three dimensions are independent criteria that preempt the composite scores and automatically place individuals in more protective environments for care (often residential settings). For example, if someone scores very high in suicidal or other dangerous behaviors, no matter what other circumstances exist, placement in a secure setting would be indicated.

LOCUS and CALOCUS-CASII use the same placement grid to guide users to a LOC/service intensity recommendation. A more definitive result is provided by a decision tree that incorporates the independent criteria and is a little more complicated to use. It has been translated into a computerized algorithm that supplies the treatment recommendation and a report containing all the selected criteria. The report provides a concise profile of the client's needs. ECSII uses a slightly different process in which the score on the Services Profile domain can impact the composite score derived from the other 5 dimensions (named Domains in the ECSII).

The digital era has progressed considerably since the introduction of LOCUS 25 years ago. In the early years of its use, paper and pencil worksheets predominated for scoring and determination of the placement recommendation. A stand-alone software version of the rating system was developed by 2000, which automated the placement algorithm and was soon thereafter augmented with data-gathering capabilities. A similar product for the CALOCUS was developed soon after its introduction and is now applicable to the CALOCUS-CASII use. The stand-alone versions predominated for over a decade, but as the adoption of electronic medical records (EMRs) became more common, EMR-compatible adaptations were developed. By 2020, a large number of insurance plans, as well as providers, had adopted LOCUS and CALOCUS-CASII as their chosen service necessity and patient placement tool for BH, and the software has been easily adapted to integrate with existing electronic record systems. At the time of this writing, ECSII does not yet have a software version. The following section on implementation will elaborate the data gathering capacity of the software and how it can be used.



Systematic Implementation

For the LOCUS FT to be used effectively and efficiently, both payers and providers need to systematically implement and apply them. The following sections present complementary implementation considerations for payers and providers.

IMPLEMENTATION CONSIDERATIONS

Implementation of the LOCUS FT may take place at the governmental and regulatory level, at the insurer or payer level or at the clinical system level. In some cases, implementation may proceed from the top of the administrative pyramid downward; in others, it may originate with direct service providers and gradually work its way up. In either case, maintaining an ultimate vision for comprehensive adoption by provider organizations, payers and governmental MH administration will lead systems of care toward more efficient and effective management of resources and clinical care.

DEFINING STAKEHOLDERS' INTERESTS

Successful implementation at all levels of the BH systems requires recognizing the interests of each stakeholder and developing strategies to demonstrate how these tools will advance those interests. Obtaining investment from all stakeholders will allow the most fluid and effective implementation.

Governmental BH administrations may wish to implement the LOCUS FT throughout their region of responsibility to ensure uniformity and objectivity of benefits and to facilitate communication between all elements of the system. In most cases they will not be the direct managers of benefits and will need insurers or MCOs, with which they contract to implement and support this change.

Insurance organizations traditionally use acuity and risk-based medical necessity criteria of their own design or more commonly from a proprietary vendor. Focusing on acuity/severity and risk as the sole dimensions to access services tends to limit insurance entity authorized treatment to crisis stabilization, as found in the verdict in *Wit*. This may lower costs in the short term, but in the long term fails to adequately address the needs of patients while being outside generally accepted standards of effective treatment, as shown in Figure 1. Switching utilization management criteria entails significant costs and changing work processes, computer systems and retraining staff and also entails some level of business uncertainty until the transition is fully mature. Some purchasers require use of specific guidelines in their MCO contract in which case the purchasers must also be convinced of the advantage of a change. Replacing or augmenting their traditional/proprietary UM algorithms with the LOCUS FT has several advantages for MCOs. Their simplicity and clarity will facilitate utilization reviews and monitoring of treatment plans. In the longer term, if the providers with which they contract become proficient with the use of these tools, those reviews may be eliminated almost entirely, along with the expense associated with them.

Provider organizations benefit from implementing the LOCUS FT because they increase the efficiency and consistency of clinical interactions and/or facilitate the incorporation of patient-centered and recovery-oriented care. Organizational leadership must engage their clinicians and service users early in the implementation process and create an environment where staff may provide feedback throughout the organizational change process.

The LOCUS FT, when properly implemented by both providers and payers, provides a common framework and language that will bridge the current misunderstandings and suspicions and allow a comfortable partnership between payers and providers that can eliminate much of the administrative waste and working at cross purposes associated with the present arrangement. By facilitating both providers and payers to think of services that are delivered as being in bundles at various levels of intensity (instead of a random assortment of individual services), the LOCUS FT can facilitate and speed movement from the current fee-for-service methodologies to more efficient and flexible bundled and ultimately value-based financing arrangements. When accomplished, this will serve the interests of all stakeholders.

IMPLEMENTATION TASKS FOR PAYERS AND PROVIDERS

The following principles can guide the process put in place to implement use of these instruments. First, the LOCUS FT three components (the LOCUS FT standardized assessment of needs and risks, standardized levels of service intensity and standardized crosswalk that matches individual needs to service intensity) cannot be separated or independently implemented. Second, although implementation may proceed in a piecemeal fashion in some cases, the vision of systemwide usage should be kept in mind. Organizational leaders should have these fundamental principles in mind before attempting to introduce these tools:

- **Assemble an Implementation Team:** The implementation team is responsible for championing and guiding the organizational change effort. It should be representative of the various staff roles affected by the implementation and include the medical director and other senior clinical leaders.
- **Create an Implementation Plan:** Identify the objectives for various tasks that must be accomplished and the methods for achieving them.
- **Establish a Timeline:** Set realistic target dates for accomplishing objectives. Attempting to move to changes too quickly may be counterproductive.
- **Establish a Service Menu:** For each LOC, a menu of programs and services that are available that meets the LOCUS FT specific service intensity recommendations should be created. This will be useful for treatment planning and the training process.
- **Identify Relevant Participants:** Consider all those who may be involved in the implementation and determine what their roles and interests may be. Include support staff, IT staff and peers.
- **Prepare, Promote and Engage:** Prepare participants by articulating the vision for the full implementation of the tools and the advantages of their use and offer opportunities for staff to provide feedback and to play an active role in the implementation.
- **Launch a Comprehensive Training Process:** Familiarize users with the instruments' scoring and extended uses and how to assure uniformity in their application. Integrate training of payers and providers when possible.
- **Provide Supervision and Support:** Assure that participants are supported in their efforts and that “super users” are available to answer questions that arise.
- **Engage in a Quality Monitoring and Improvement Process:** Implement ongoing evaluation of the use of these tools and identification of opportunities to enhance reliability and utility of use. Processes for data collection and progress measurement should be in place.

Comprehensive Training Is Essential

The LOCUS FT is easily understood and intuitive. In many respects the tools are self-explanatory, but there are nuances that require clarification for novice users. However, if LOCUS use is to be required in making medical necessity determinations that impact payment, training is essential to ensure demonstrable fidelity to the tool and to meet regulatory questions about consistent use of the tool. Training should be obtained from approved sources as certified by AACP and/or AACAP. These trainings provide both informational sections and opportunities to practice rating cases. They are available in a variety of forms, from written vignettes to live interviews, with actors in the role of patient. Interactive formats will most effectively engage trainees. Whenever possible, integrated training, in which diverse stakeholders are instructed together, should be arranged as they will help establish a sense of partnership in the management of care and resources. Adjunctive training may be offered for distinct categories of trainees such as case managers, clinical managers and MCO staff. It is preferable for different categories of trainees to have substantial overlap in the content of the training, particularly in scoring case examples and training to reduce variation in



applying LOCUS FT guidelines to individual cases. Training may be developed locally and tailored to the specific circumstances encountered there. Concepts underlying the establishment of these tools must be presented as well as the conventions of scoring. Training may take a variety of forms, including live in-person training, live online training, asynchronous web-based training and sessions combining aspects of each of these. Advanced training programs should be developed to create a cadre of “experts” or “super users” to provide supervision and additional support.

Quality Monitoring and Improvement are Essential

The final part of the plan will be putting in place a method to monitor use and develop a process to improve the quality and scope of LOCUS FT use. Continuous quality improvement (CQI) initiatives may address a variety of process indicators, such as:

1. Time to complete ratings.
2. Use of ratings for treatment and transition planning.
3. Inter-rater reliability.
4. Raters’ knowledge of services associated with each LOC.
5. Availability of recommended services.
6. Longitudinal monitoring of outcomes and service utilization.

Recording of successive ratings over the long term will provide a record of the course of an individual’s illness and identify individuals who may require more creative or intensive service planning. Applying the CQI process to what may have caused the mismatch between needs and service intensity will lead to improved outcomes. With adequate quality processes in place, case-by-case URs will eventually become unnecessary. Periodic audits of a clinicians’ ratings against the medical record or supervisors’ ratings will suffice to identify any consistently inaccurate scoring. This should result in a significant reduction in non-treatment expenses and allow systems to spend more on care.

IMPLEMENTATION CONSIDERATIONS FOR LARGER SYSTEMS AND MANAGED CARE ORGANIZATIONS

Although traditional utilization review processes are recommended during the early phases of implementation, the goal should be to gradually shift responsibility for service intensity decisions to the provider. MCOs can validate that providers understand and use LOCUS FT correctly before delegating full responsibility for level of care decisions by implementing a system of certification related to reaching a threshold of “accurate” ratings (i.e., 95%), or using a similar threshold for individual clinicians or an entire provider organization. Once providers are certified, periodic audits would be required to ensure inter-rater reliability arises. When ongoing differences arise regarding the correct LOCUS FT scoring between users and different organizations, a joint committee should be formed to improve inter-rater reliability and resolve differences in individual cases.

Data Collection

Aggregate utilization data should inform programming and payment policies. The use of the “LOCUS Data Set” (Sowers, 2003) will allow MCOs to access information about their own provider network and their regional, national and global utilization. This data analysis will allow them to identify both underutilization and overutilization for individuals and populations. Unnecessary expenses are generated when clients are assigned LOCs that are more intensive than LOCUS FT recommendations due to lack of available services at the recommended level. Often service gaps exist when there are financial disadvantages for providers to fill them. Creating adequate reimbursement revenue streams will encourage providers to develop services that fill out the continuum and ultimately save money. Demographic information matched with LOCUS FT scores over time will not only help predict the trajectory of an illness but will also help identify high risk groups to allow targeted preventive interventions. Analysis can identify clinicians or agencies that need additional training to assure proper usage of LOCUS FT.

Setting Reimbursement Rates

LOCUS FT data can help in actuarial calculations for bundled rates such as per diems, case rates or capitations. Average costs for care at a given level can be computed over time and compared against regional and national averages. LOCUS FT profiles can be used to establish variable risk groups that differentiate LOC and service utilization that are distinct for those groups. Equitable rates can then be established that control for severity of illness and that discourage “cherry picking.”





Research, Evaluation and Continuous Quality Improvement

CURRENT RESEARCH

Early in their development, both LOCUS and CALOCUS/CASII were tested for reliability and validity. In a study published in 1999, LOCUS-familiar raters with various backgrounds and exposure to training scored 10 case vignettes. The study found close agreement between the three placement methods (grid, decision tree and computer-assisted). Intraclass correlation coefficients were calculated and showed good (> 0.4) reliability with regard to dimensional ratings and level of care recommendations, with all scores above 0.5. Validity was measured by comparing (via average placement LOC regression correspondence) the LOC recommendations of the raters to those of a panel of experienced clinicians who had no knowledge of the LOCUS rating system, but who were asked to make a recommendation for placement within the LOCUS LOCs based on their professional judgement. The raters' recommendations were also compared to those of a LOCUS "expert" (one of its authors). The results demonstrated that recommendations of the experienced clinicians, while somewhat variable in themselves, were within one standard error of a 1:1 correspondence. Agreement was greatest at higher LOCs. There was slightly greater divergence when raters' recommendations were compared to those of the expert panel, but greatest agreement was again demonstrated at higher LOCs (Sowers, 1999).

A similar protocol was used in the testing of CALOCUS in 2000, published in 2006. Data on reliability and validity of scoring by 78 licensed MH professionals, including 12 child and adolescent psychiatrists (CAPs), was collected from four geographically distinct sites nationally. All study subjects completed a six-hour training and at least two practice vignettes. They then scored a test vignette. Results demonstrated composite intraclass correlation coefficients for all dimensions of 0.89 for CAPs (range 0.73-0.93 by individual dimension) and 0.93 for others (range 0.57-0.95). Non-CAP scorers overall rated composite scores 1.9 points higher than CAP scorers, but this difference was less than one full-service intensity level. The results of validity testing showed moderate correlations between CALOCUS, CAFAS and the Child Global Assessment Scale (CGAS) when completed by the same group of clinicians. Highest correlations were in the dimensions related to the child alone, with lower correlations regarding caregiver engagement and the environment, as would be expected given that the CAFAS and CGAS only rate the child (Fallon, 2006).

Subsequent publications have supported use of the CALOCUS/CASII in child welfare (Pumariega, 2019) and juvenile justice (Pumariega, 2014). CALOCUS/CASII has been shown to be valid when used as an outcome measure (Henderson, 2018).

For ECSII, initial field testing for inter-rater reliability and validity used the same methodology as used for the CALOCUS/CASII. Acceptable intraclass correlations were identified, ranging from 0.676 to 0.829 for raters who were early childhood clinicians and who had completed a one and a half day in-person training on the ECSII. Criterion-based validity was established by comparing scores from the inter-rater reliability sample of clinicians with "gold standard" expert scoring of 15 standardized vignettes. This yielded an intraclass correlation coefficient of 0.9254. Acceptable concurrent validity was found when tested by comparison with the Child Behavior Checklist and the Parent Stress Index. More detail on ECSII psychometrics is contained in the ECSII Manual (American Academy of Child and Adolescent Psychiatry, 2019).

NEED FOR FURTHER RESEARCH

While there is high demand for the LOCUS FT, there are many questions that require further research and evaluation to inform best practices. Because of the initial free access to the tools, and limited ability to collect data from users, we do not really know how widely the LOCUS FT is used, much less how it actually impacts practice or is incorporated into quality improvement activities. In general terms, areas of inquiry are essential to meaningfully advance the use of these tools for the purposes of service

intensity assessment and planning: refinement of the tools and the training that supports their reliable use, impact of the use of these tools on service recipient outcomes and the impact of the use of these tools on health systems. Plans are in place to register users and develop a database that will help further these processes.

Refining the LOCUS Family of Tools

These tools have been studied for such psychometric properties as inter-rater reliability, test-retest reliability, construct validity and even exploratory factor analysis¹³ (Fallon et al., 2006). Further field testing is needed in real-world settings, such as when used by non-licensed professionals and in such non-MH settings as child welfare and juvenile justice for children and adolescents. Studies are needed to assess the feasibility and acceptability of using these tools among both providers and recipients of services. Fidelity monitoring of the tools is needed, as has been attempted in Michigan Community Mental Health Centers that have adopted the LOCUS.

Aligning the service intensity recommendations to specific clinical settings can also be achieved using an evidence-based approach. On one hand, greater standardization of the service intensity level criteria may be valuable for future applications such as accreditation, comparable to use of the ASAM Criteria as a basis for accrediting substance use treatment settings. On the other hand, flexibility in matching client needs with indicated services provides greater freedom in connecting clients to services such as peer respite, peer-to-peer support specialists, home-based therapies and wraparound services. Other formal team-based service planning, first episode psychosis programs, forensic assertive community treatment and mobile crisis programs can also be included in service menus.

Impact on Outcomes

Validation of the LOCUS FT hinges on the question of whether these tools are actually assigning clients to the most appropriate services according to their needs and recommended level of service intensity. One assessment strategy is to evaluate, under controlled conditions, whether individuals assigned to services using LOCUS-informed LOC recommendations have improved clinical outcomes (e.g., reduced acute service utilization, improved recovery measures and patient-reported outcome measures) as compared to clients placed in services by clinical judgement alone (LOCUS uninformed). Another approach would be to compare LOCUS FTs to existing validated instruments (e.g., concurrent administration of the Columbia-Suicide Severity Rating Scale, a violence risk assessment and the risk of harm dimension of the LOCUS Family of Tools) and assess for the correlation between them. Finally, real-world use of the LOCUS Family of Tools presents an additional approach to evaluate outcomes when services at the recommended service intensity level are not available compared to those obtained when the full array of service options are in place.

As noted earlier, one of the main objectives of the LOCUS FT is to reduce the influence of bias and discriminatory service recommendations. An essential objective in the evaluation of the LOCUS FT is to identify potential disparities that may exist in a system's existing service recommendations and compare them to remaining disparities after implementation of the LOCUS FT. For example, payers must take steps to ensure equity and proactively monitor for disparities in UM. This could be done by analyzing LOCUS recommendations by racial and ethnic groups and other demographic factors. Furthermore, specific populations may not be as appropriately evaluated by these tools due to factors not captured in the dimensions or algorithm. This will become clear as more robust validity data are available from general use.

Impact on Systems

In addition to using the current tools to facilitate referrals to the most appropriate service intensity level, use of standardized tools helps refine our basic understanding of a key question in MH services: What is the most effective service intensity in the least restrictive setting that supports recovery?

As health systems and payers implement the LOCUS FT systemwide, they will be able to assess for adequacy of their capacities and service array at each service intensity level, and they will be able to more easily track changes in patient flow as they expand specific services. They will also be able to determine which service intensity levels are associated with improved value and/or



recovery outcomes (i.e., whether wraparound service planning and other intensive home and community-based services, such as in-home therapies and peer-to-peer supports, deliver better or worse outcomes and value than more restrictive settings such as residential or inpatient care, and for which clients).

In addition to impacting service capacities, the LOCUS FT can be used to set reimbursement rates. Payers and provider systems can measure progress, the average necessary cost per day and length of stay at a given level of service intensity. They can also characterize the required staffing (e.g., medical, nursing, peers) as well as the usual frequency and type of individual and family interventions delivered by professionals and informal supports at each service intensity level. By combining these data points, payers and providers will be better positioned to negotiate and set case rates or per diems, which would enhance provider autonomy and flexibility and reduce administrative waste. These types of analyses can also help determine if use of the LOCUS FT reduces costs.

Incorporating data from the LOCUS FT into the types of analyses described above – including regular assessments of outcomes, equity and costs – can allow more sophisticated continuous quality improvement practices as well.

Table 2. Research and Evaluation Opportunities for the LOCUS FT

Research Area	Examples of Studies
UPTAKE OF TOOLS	Examine LOCUS user data; survey payers and providers.
REFINEMENT OF TOOLS	
Psychometric testing	Inter-rater reliability, test-retest properties, construct validity exploratory factor analysis.
Feasibility and acceptability	Surveys and/or qualitative methods of providers and people receiving services.
Fidelity monitoring	Conduct field testing and assess for consistency of use and adherence to protocols.
Specificity of criteria	Assess service intensity relative to actual referrals; identify specific settings in each service intensity while standardizing the service intensity for specific settings.
IMPACT ON OUTCOMES	
Overall validity	Measure outcomes (e.g., reduced acute service utilization, recovery measures, Patient-Reported Outcome Measures) relative to service intensities.
Construct validity	Assess consistency when co-administered with existing validated instruments.
Discrepancy analysis	Evaluate outcomes when the recommended service intensity level is not available.
Equity analysis	Monitor for disparities in service intensity recommendations by racial and ethnic groups and other demographic factors.
Adaptations for special populations	Assess for homelessness, criminal or juvenile justice system involvement, diagnosis with intellectual or developmental disorders, diagnosis with dementia and other cognitive disorders.
IMPACT ON SYSTEMS	
Capacity estimation and network adequacy	Based on population served, disease prevalence and service utilization, estimate the needed capacity and network needed at each service intensity level.
Rate setting	Assess costs and utilization at service intensity levels to inform rates.
Cost effectiveness	Measure costs pre- and post-implementation of the tools.

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