LTSS Assessment and Support Plan Pilot Final Report

Colorado Assessment and Support Plan Pilot Prepared for the Colorado Department of Health Policy and Financing

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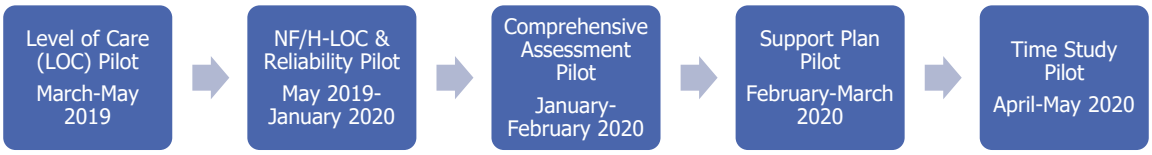
Executive Summary

The Colorado Department of Health Care Policy and Financing (the Department) contracted with HCBS Strategies to pilot its new assessment and support planning (A/SP) process for Medicaid-funded long-term services and supports (LTSS). The pilot served the following purposes:

- Establish the validity and reliability of the items used in the process and rectify or remove items that were found to be problematic.
- Replicate the current nursing facility level of care (NF-LOC) criteria, which is used for determining eligibility for most of Colorado's home and community-based services (HCBS) waivers as well as nursing facilities.
- Establish new hospital level of care (H-LOC) criteria that are used for establishing eligibility for one Home and Community Based Services (HCBS) waiver and meeting federal budget neutrality requirements for several other waivers.
- Streamline the process and eliminate unnecessary items.
- Obtain time estimates for how long the new process takes.

The pilot included five phases:



The first two phases were used to establish reliability and develop LOC criteria. The later three phases helped to streamline the process and establish how long the process took.

Assessors, who were case managers at Single-Entry Points (SEPs) or Community Centered Boards (CCBs), conducted assessments in conjunction with scheduled eligibility assessments (including both initial assessments and reassessments). Sixty-eight assessors participated in the first two phases of the pilot of which 23 were selected to continue to the last three pilot phases. Over all the phases of the pilot, 646 participants were assessed. The pilot collected data that allowed for separate analyses of the impact on children, older adults and adults with physical disabilities, adults with intellectual disabilities, and individuals with mental health conditions.

The first analyses compared scoring on individual ULTC 100.2 items with matching items from the new assessment. Binary variables were compared to analyze the level of agreement between the two variables with perfect agreement being 100% and agreement by chance being 50%. The level of agreement across the items ranged from 53% to 99% with the lowest levels of agreement being for verbally aggressive behaviors that require physical intervention and the highest levels of

agreement for two or more mild executive functioning impairments within the items on problem solving, planning, and judgment. Additional analyses of the pilot data also showed surprising patterns, including people scoring as being completely independent on the new assessment items but meeting the LOC threshold for the ULTC 100.2. These analyses informed the LOC development.

The next analyses examined the reliability of the individual variables. The vast majority (88%) met the threshold for reliability. Items with lower reliability were either removed or modified.

The third set of analyses focused on replicating NF-LOC criteria. Multiple scenarios were modeled and reviewed with Department staff and stakeholders. These discussions resulted in substantial modifications that resulted in new criteria in which only one percent of people who meet LOC under the ULTC 100.2 would lose eligibility while 25% of individuals who did not meet LOC under the ULTC 100.2 would be eligible under the replicated criteria. This report provides the final criteria.

The fourth set of analyses created new Hospital LOC (H-LOC) criteria. HCBS Strategies worked with Department staff and stakeholders to review and refine various proposed H-LOCs. The result was three different H-LOCs, one for the HCBS waivers with H-LOCs that serving adults, Spinal Cord Injury (SCI) and Brain Injury (BI) waivers; one for the Children's HCBS (CHCBS) waiver; and a third for the Children with Life-Limiting Illness (CLLI) waiver. These criteria easily met budget neutrality requirements and should not result in anyone losing eligibility. The report provides the final criteria and explanation for which three criteria were needed.

The fifth component was to streamline the process. A variety of approaches were used to do this, including results from the previous efforts and new statistical analyses and input from case managers, stakeholders, and Department staff. The changes focused on:

- Removing and/or simplifying items
- Reducing redundancies
- Streamlining the flow of the process, such as grouping similar constructs together
- Identifying opportunities for enhancements and coordination in the future IT system

The final set of analyses estimated the amount of time the new process would take. This phase of the study coincided with the requirement that all assessments be conducted remotely because of COVID-19. Extensive steps were taken to try to make the process as similar as possible as an in-person assessment and comparisons to earlier phases of the pilot did not provide any evidence that the time estimates differed substantially for in-person versus remote assessments.

The average time across all populations for completing the entire A/SP process was 266 minutes (four hours and 26 minutes). The population that overall took the longest time to complete the

assessment was adults with intellectual and developmental disabilities (IDD) (309 minutes, 44 minutes above the average), while children with IDD took the least amount of time (231 minutes, 35 minutes below the average). All other populations were within 20 minutes of the average A/SP time.

The report also discusses benefits of the new process and challenges and caveats in interpreting the findings. The report also includes suggestions improvement in automation and training.

Background

The Colorado Department of Health Care Policy and Financing (the Department) contracted with HCBS Strategies to pilot its new assessment and support planning (A/SP) process for Medicaid-funded long-term services and supports (LTSS). The Department undertook this effort because of concerns about the reliability and validity of the items in the current tool used for eligibility determinations; the lack of consistent collection of all necessary data; and the ability of the current tool to support a person-centered process, including the development of a person-centered Support Plan. Senate Bill 16-192, which was enacted after the Department began this effort, added a legislative mandate to create a single assessment for all individuals seeking or receiving long term services and supports (LTSS).

The Department identified that the pilot needed to meet the following objectives:

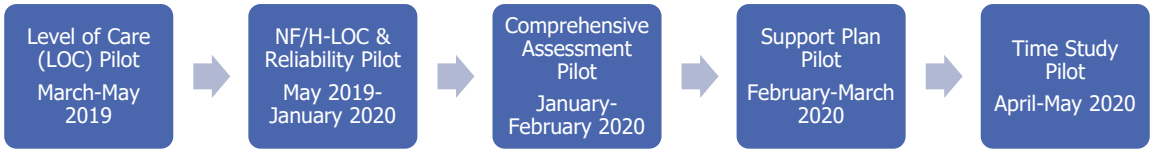
- Establish the validity and reliability of the items used in the process and rectify or remove items that were found to be problematic.
- Replace the current nursing facility level of care (NF-LOC) criteria, by replicating constructs from the ULTC 100.2 assessment, with new criteria using items from the new assessment process, while minimizing the number of people for whom eligibility changed. NF-LOC is used for determining eligibility for all of Colorado's home and community-based services (HCBS) waivers as well as Nursing Facilities, Intermediate Care Facilities and Program of All-Inclusive Care For the Elderly (PACE).
- Establish new hospital level of care (H-LOC) criteria that are based on participant's characteristics rather than their service use, costs, or subjective criteria applied by case management staff. H-LOC is used for establishing eligibility for one HCBS waiver and necessary to meet federal budget neutrality requirements for several other waivers.
- Streamline the process by eliminating items that are not needed for establishing LOC or resource allocation and do not contribute to the support planning process.
- Obtain time estimates for how long the new process takes to determine if and how case management reimbursement needs to change.

Project Overview

The pilot was structured in phases that accommodated the following:

- Capture sufficient data to conduct the Level of Care (LOC) creation and replication analyses and understand impacts on subpopulations.
- The primary purpose of collecting data on both the assessment and Support Plan concurrently was to identify components of the assessment that can be removed because they are not necessary for support planning (or needed for another purpose, such as determining LOC). Analyses of the data collected for the assessment and Support Plan would require both quantitative and qualitative data on the efficiency and effectiveness of the workflow of the entire process from feedback sessions with both case managers and pilot participants.
- Ongoing updates to the Case Management Information Technology Platform used for the pilot, Ariel. The Care and Case Management iteration of Ariel was not ready for use during the initial pilot phases. As a result, the pilot was restructured to focus on collecting necessary data for LOC and reliability using an alternative iteration of Aerial CarePlanner. Aerial's Care and Case Management was rolled out in January 2020 and the pilot was again adjusted to allow case managers to become familiar with the new iteration prior to the Time Study pilot.

These parameters resulted in a pilot of A/SP process that included five phases:



The first two phases included:

- The level of care (LOC) pilot only collected data using the LOC Screen, which included both current assessment tool items from the ULTC 100.2 and the items designed to replace them. The purpose of this pilot was to compare the items across the current and new tools and comply with the Center for Medicare & Medicaid Services' (CMS) Testing Experience Functional Tools (TEFT) grant timelines.
- The Nursing Facility (NF)/Hospital (H)-LOC and Reliability pilot collected data necessary to fulfill the following functions:
    - Replicating the NF-LOC for adults

- Establishing a more objective NF-LOC criteria for children
- Establishing objective and prospective H-LOC for all of Colorado's relevant HCBS waivers
- Testing the reliability, including the inter-rater reliability, of select items in the new assessment that may be used for NF-LOC, H-LOC, and resource allocation and that have not previously been tested for reliability.

The latter three phases were intended as a test of the entire process. The first two of these phases were also conducted to allow assessors to become familiar with the updated content, flow, and automation. During the Comprehensive Assessment pilot, assessors were trained on the comprehensive assessment and completed several of these in the field. They were then trained on the Support Plan and completed several comprehensive assessments and Support Plans in the field. At this point, the qualitative information about the process was obtained and used to propose revisions to the assessment and support plan. Many of the revisions were made to the comprehensive assessment and, to a lesser extent, the Support Plan prior to the Time Study pilot. The Time Study pilot was intended to capture the time it takes assessors familiar with the A/SP process to complete the entire process in the updated automation platform.

PREVIOUS REPORTS

The following reports were developed prior to this final report:

- Report 1: *Level of Care Pilot Comparative Analyses* – The first phase of the pilot collected information from the ULTC 100.2 and items measuring comparable constructs from the new assessment for the first 84 participants for whom only these items were asked.
- The principal finding from this report was that inconsistencies in scoring of the ULTC 100.2 would make it challenging to replicate the NF-LOC. In response to this finding, HCBS Strategies worked with the Department and case managers to further identify these scoring inconsistencies, how they were being operationalized, and whether they were consistent with local and/or Department training. HCBS Strategies was then able to adapt subsequent trainings and items proposed for evaluation within the LOC model to address these inconsistences.
- Report 2: *New Colorado Assessment Reliability Analyses* – This report summarized analyses of interrater reliability (IRR) from the second phase of the pilot which included 107 participants.
- Approximately 90% of the items met the threshold for reliability. The remaining items were either removed or altered to improve reliability.

- Report 3: *Hospital LOC Report* – This report summarized the proposed H-LOC criteria for waivers that use a H-LOC.
- Report 4: *Comprehensive Assessment and Support Plan Summary Report* – This report described the changes made to the assessment and support planning processes that were made based upon assessor and participant feedback during the comprehensive assessment and support plan phases of the pilot.
- Report 5: *Time Survey Report* – This report summarized findings from the last stage of the pilot that captured the amount of time necessary to conduct the assessment and support planning process.

Pilot Methodologies

ASSESSORS

Assessors were case managers who were drawn from the existing pool of case managers at the Single-Entry Points (SEPs), Community Centered Boards (CCBs), and, for the Level of Care (LOC) Screen pilot only, a Children's Habilitation Residential Program Waiver (CHRP) case manager from Department of Human Services (DHS), which previously exclusively oversaw the CHRP waiver. One hundred and twenty-three case managers expressed a desire to participate. Information was obtained from the Department on the number of assessments these case managers conducted in the past year and the populations they assessed and was utilized to select a pool of 68 case managers based on the following criteria:

- The total number of assessments they had conducted in the past year.
- The populations they had assessed. Almost all case managers who assessed children and/or people with mental health issues were selected to ensure enough assessments with these individuals were conducted.
- The geographic area they served, to have a range of agencies and representation in urban, rural, and frontier settings.

Because of attrition that was mostly due to case managers leaving agencies, 52 case managers continued to the NF/H-LOC & Reliability pilot.

The Department, in consultation with HCBS Strategies, decided to use a smaller pool of pilot assessors for the Comprehensive Assessment, Support Plan, and Time Study pilots to allow each assessor to conduct more assessments, thereby having more opportunities to become skilled using the process and automation. Assessors who had conducted the most assessments and provided significant feedback during the earlier phases were selected. Thus, there 23 case managers participated in the last three phases of the pilot.

ASSESSOR TRAINING

Assessors were trained before each phase of the pilot. The first four pilot phases included full-day, in-person trainings and the Time Study pilot training was conducted via web-enabled call.

- **LOC Pilot Training:** Web-enabled training on the automation of Aerial's CarePlanner used for the LOC and NF/H-LOC & Reliability pilots was conducted on March 5, 2019. In-person trainings on the content and flow of the LOC Screen occurred March 11-15, 2019 in Montrose, two locations in Denver, Pueblo, and Greeley (conducted remotely because of the first 2019 Bomb Cyclone). The purpose of these trainings was to familiarize case managers with the core constructs used to establish eligibility in the LOC Screen:

functioning, behaviors, and memory/cognition. A major focus of these trainings was on how the LOC Screen constructs and responses differ from the ULTC 100.2.

- **NF/H-LOC & Reliability Pilot:** In-person trainings on the content and flow of the LOC Screen occurred April 8-12, 2019 in Montrose, twice in Denver, Pueblo, and Greeley (conducted remotely because of the second 2019 Bomb Cyclone). The purpose of these trainings was to build upon the foundational knowledge assessors had gained in their training and use of the LOC Screen. The focus of these trainings was on items not previously discussed during the LOC Screen training and corresponding updates to the automation.
- **Comprehensive Assessment Pilot**: Web-enabled training on the Aerial's Care and Case Management used for the Comprehensive Assessment, Support Plan, and Time Study pilots occurred on January 3 & 6, 2020. In-person trainings occurred January 10-13, 2020 in Denver, Colorado Springs, and Montrose. The purpose of these trainings was to introduce case managers to the new items and updated flow of the Comprehensive Assessment. This was the first time case managers were exposed to voluntary items in the A/SP process.
- **Support Plan Pilot**: In-person trainings occurred January 27-30, 2020 in Denver, Colorado Springs, and Montrose. These trainings provided an in-depth review of the content and flow of the Support Plan.
- **Time Study Pilot**: Web-enabled training occurred on April 6, 2020 to provide updates to the automation and A/SP contents and flow. This training provided updates on the A/SP changes that occurred after the Support Plan pilot.

In addition to these trainings, HCBS Strategies facilitated regular check-in calls with case managers to provide updates and clarification on A/SP constructs that case managers identified as unclear or were showing as missed or potentially inaccurate in the data. Assessors completed competency quizzes when they were unable to attend a check-in meeting, and also conducted a series of quizzes to reinforce their understanding between the Support Plan and Time Study pilots. Assessors also completed feedback sheets after each assessment, and HCBS Strategies operated a 24-hour Help Desk to answer questions, capture feedback, and address issues throughout the pilot.

PARTICIPANTS

Participants were selected based on their scheduled ULTC 100.2 initial assessments or reassessments. Until the target number of assessment was met for a particular population, case managers were instructed to offer all participants with whom they have scheduled assessments the opportunity to participate in the pilot to prevent them from introducing a selection bias (e.g., only selecting cases that would take less time to assess).

PILOT METHODOLOGIES

Pilot timeframes and participants included:

- **LOC Pilot:** Ran from March 12 through April 2, 2019 and captured 84 of the targeted 85 assessments. One assessment from the older adult and individuals with physical disabilities population fell through at the last minute.
- **NF/H-LOC & Reliability Pilot:** The pilot for adult participants ran from April 8 through July 31, 2019. Targets were set for 150 single assessor assessments and 90 dual assessor assessments in which two case managers scored the assessment independently to capture data to assess reliability. Both these targets were met, and an additional 19 single assessor assessments were conducted to obtain additional information about participants in the Spinal Cord Injury (SCI) and Brain Injury (BI) waivers.

  To capture more assessment of children, the pilot was extended through January 31, 2020. This additional time resulted in the completion of 72 single assessor children's assessments, which exceeded the target of 70 children's assessments, and 13 of the targeted 30 dual assessor assessments for children not on the CLLI waiver. The target for dual assessor assessment for children could not be met because these case managers tended to be geographically spread out making it difficult to coordinate and conduct assessments together.

  Overall, 251 single assessor and 110 dual assessor assessments were completed during the NF/H-LOC & Reliability Pilot.
- **Comprehensive Assessment & Support Plan Pilots**: The Comprehensive Assessment pilot ran from January 7 through January 24, 2020 and the Support Plan pilot ran from January 27 through February 21, 2020. The purpose of these pilots was to allow assessors to become familiar with the updated Comprehensive Assessment and Support Plan rather than data collection. Because the timeframe had to be shorted due to automation-related delays, assessors were only able to complete 38 of the targeted 46 Comprehensive Assessment pilot assessments and 61 of the 69 targeted Support Plan pilot assessments.
- **Time Study Pilot:** This pilot ran from April 6 through May 15, 2020. 102 of the 102 targeted assessments were completed. The only population in which the targeted number of A/SPs was not completed was children without intellectual and developmental disabilities (IDD) (14 of the 18 targeted assessments) because of the turnover among these case managers. An additional four children with IDD assessments were authorized because it was not possible to conduct four of the assessments with non-IDD children.

Exhibit 3 provides a summary of all pilot participants by pilot population for all phases of the pilot.

Exhibit 3: Number of Pilot Participant Assessments by Pilot Population for All Phases of the Pilot

Population	# of Assessments
Children	160
Older Adults and Adults with Physical Disabilities (APD)	205
Adults with IDD	150
Mental Health	131
Total	**646**

All assessments were conducted in-person except for those used for the Time Study. Unfortunately, the COVID-19 restrictions forbidding in-person assessments started immediately before the beginning the Time Study Pilot. Case managers conducted these A/SPs remotely. Case managers were given guidance that, if the participant prefers, the A/SP should occur as part of multiple sessions to help maintain focus and reduce fatigue. Case managers were also encouraged to use other electronic modalities, such as video conferencing, to conduct the A/SP if they were available to both parties.

Project Outcomes

LOC COMPARATIVE ANALYSES

The LOC and NF/H-LOC & Reliability phases of the pilot collected data necessary to replicate current NF-LOC criteria. Scoring on individual ULTC 100.2 items was compared with matching items from the new assessment for 445 participants.

Because the purpose of this effort was to understand how differences in scoring these items might impact eligibility, the ULTC 100.2 items and comparable items in the new assessment were collapsed into binary measures (i.e., only having two choices) that only indicated whether a participant met the support threshold to count towards meeting LOC. In the ULTC 100.2, these binary variables were separated into two groups, the first being those who did not meet the LOC threshold for the construct (a score of 0 or 1) and the second being those who met the LOC threshold for the construct (a score of 2 or 3). The level of agreement between the two variables was analyzed with perfect agreement being 100% and agreement by chance being 50% for items with only two choices (for example, for yes/no questions, two assessors would be expected to agree 50% of the time by chance).

Exhibit 4 provides a summary of the level of agreement for each of the items piloted.

Exhibit 4: Level of Agreement between the ULTC 100.2 and New Assessment Items

New Assessment Item	ULTC 100.2 Item	Level of Agreement
Functioning		
Bathing, Usual Performance, Partial/Moderate Assistance or greater	Bathing	89%
Dressing - Upper Body, Usual Performance, Partial/Moderate Assistance or greater	Dressing	87%
Dressing - Lower Body, Usual Performance, Partial/Moderate Assistance or greater	Dressing	84%
Dressing - Footwear, Usual Performance, Partial/Moderate Assistance or greater	Dressing	80%
Toilet Hygiene, Usual Performance, Partial/Moderate Assistance or greater	Toileting	83%
Toilet Transfer, Usual Performance, Partial/Moderate Assistance or greater	Toileting	70%
Menses Care, Most Dependent Performance, Partial/Moderate Assistance or greater	Toileting	71%
Toileting - Requires support with bladder equipment	Toileting	79%
Toileting - Requires bladder program	Toileting	61%
Toileting - Requires support with bowel equipment	Toileting	82%
Toileting - Requires bowel program	Toileting	61%
Mobility - Participant does not walk	Mobility	70%
Walk 10 Feet, Usual Performance, Partial/Moderate Assistance or greater	Mobility	69%
Walk 150 Feet, Usual Performance, Supervision/Touching Assistance or greater	Mobility	74%

PROJECT OUTCOMES

New Assessment Item	ULTC 100.2 Item	Level of Agreement
Walk Outside, Usual Performance, Supervision/Touching Assistance or greater	Mobility	72%
Mobility - Participant uses a cane/walker for mobility activities	Mobility	67%
Transfer - Roll left/right, Usual Performance, Partial/Moderate Assistance or greater	Transferring	74%
Transfer - Sit to Stand, Usual Performance, Partial/Moderate Assistance or greater	Transferring	78%
Transfer - Participant uses a cane/walker for transfer activities	Transferring	67%
Eating, Usual Performance, Partial/Moderate Assistance or greater	Eating	86%
Tube Feeding, Usual Performance, Partial/Moderate Assistance or greater	Eating	84%
Memory & Cognition		
Memory, Moderately Impaired	Mem/Cog	56%
Attention, Moderately Impaired	Mem/Cog	58%
Problem Solving, Moderately Impaired	Mem/Cog	69%
Planning, Moderately Impaired	Mem/Cog	65%
Judgment, Moderately Impaired	Mem/Cog	69%
Executive Functioning- 2+ Mild Impairments in Problem Solving, Planning, Judgment	Mem/Cog	99%
Ability to Express Self to Individuals Familiar With, frequently exhibits difficulty	Mem/Cog	55%
Behaviors		
Injurious to self - Cueing, at least once per month up to weekly	Behaviors	63%
Injurious to self - Physical Intervention, at least once per month up to weekly	Behaviors	59%
Injurious to self - Planned Intervention, at least less than monthly to once per month	Behaviors	60%
Physically Aggressive - Cueing, at least once per month up to weekly	Behaviors	67%
Physically Aggressive - Physical Intervention, at least once per month up to weekly	Behaviors	61%
Physically Aggressive - Planned Intervention, at least less than monthly to once per month	Behaviors	61%
Verbally Aggressive - Cueing, at least once per month up to weekly	Behaviors	65%
Verbally Aggressive - Physical Intervention, at least once per month up to weekly	Behaviors	53%
Verbally Aggressive - Planned Intervention, at least less than monthly to once per month	Behaviors	55%
Property Destruction - Cueing, at least once per month up to weekly	Behaviors	64%
Property Destruction - Physical Intervention, at least once per month up to weekly	Behaviors	58%
Property Destruction- Planned Intervention, at least less than monthly to once per month	Behaviors	60%
Likelihood behavior would reoccur	Behaviors	72%

The level of agreement across the items ranged from 53% to 99% with the lowest levels of agreement being for verbally aggressive behaviors that require physical intervention and the highest levels of agreement for two or more mild executive functioning impairments within the items on problem solving, planning, and judgment. Additional analyses of the pilot data also showed surprising patterns, including people scoring as being completely independent on the new assessment items but meeting the LOC threshold for the ULTC 100.2.

The findings highlight the differences between the ULTC 100.2 and the new assessment items. Although the new items were selected to capture data on similar constructs, changes were necessary to reflect best practices for reliability and validity, including using the standardized items from the CMS Functional Assessment Standardized Items (FASI) wherever possible.

Many of these differences are caused by the ULTC 100.2 training that instructs case managers to score participants' ability to perform tasks in the absence of any adaptive equipment. This is contrary to the approach taken by other LTSS assessment tools, which generally try to assess the amount of human support needed after accounting for the use of any adaptive equipment.

The findings highlight the fundamental flaws of the ULTC 100.2 and reinforce the need to change this tool. Because of these findings, the following areas were given special attention when developing the new NF-LOC criteria:

- Mobility and transferring, notably the scoring of people who are independent with the use of equipment, such as a walker or cane.
- Behaviors, given that some people who were scored as exceeding the ULTC 100.2 behavior threshold did not appear to have any active behavior issues on the new behavior items and others that had active issues on the new items were not scored as exceeding the ULTC 100.2 behavior threshold.
- Compounding memory and cognition challenges that are exhibited by the executive functioning constructs of problem solving, planning, and judgment

While there are substantial differences between the current and new tool, the LOC determinations agree in the vast majority of cases.

SUMMARY OF RELIABILITY AND VALIDITY TESTING

To assess inter-rater reliability (IRR), during the NF/H-LOC & Reliability pilot, 110 pilot participants were assessed by two case managers who scored the assessment independently.

IRR measures the extent to which two assessors assessing the same participant assign the same score. This effort uses two measures of IRR: Kappa (also known as Cohen's kappa) is the primary

measure, however, the percentage of time the assessors assign the same score (percent agreement) is used in cases where the kappa statistic may not be an appropriate measure.

Assessments were done by case managers at the Single-Entry Points (SEPs) and Community Centered Boards (CCBs). Participants were selected from ULTC 100.2 initial assessments or reassessments that were scheduled during the pilots. A target of 30 paired assessments[1] was set for each of the following categories: Individuals with intellectual and developmental disabilities (IDD); older adults and adults with physical disabilities (APD); individuals with mental health conditions; and children.

Among all assessment items in the overall (combined) population, **the vast majority (88%) met the threshold for reliability** (kappa $\geq$ 0.6). This number increased to 91% when looking at items for which there were 20 or more paired observations.

The reliability numbers for the individual populations were somewhat lower than for the total population because these kappa statistics are based on far fewer observations. The IDD and children populations had the highest percentage of reliable items (89% for both populations), followed by the mental health population (83%). The number of items found to be reliable for the APD population was lower than for the other populations (69%). Much of this difference is attributable to lower levels of reliability for the functioning, memory and cognition, and psychosocial items.

More than 90% of the items were found to be reliable for the overall pilot population in seven of the eleven assessment modules that were examined for reliability. The modules with lower levels of reliability were Housing and Environment, Sensory and Communication, Safety and Self-Preservation, and Hospital Level of Care.

A report was provided that includes tables that summarize information about each of the items with a kappa below 0.6. They present the relevant statistics, the items language, and a discussion about potential issues and remedies. The Department and stakeholders used this information to help determine which items to remove. HCBS Strategies made recommendations for improving the item and/or training language for each item with low reliability that will remain in the assessment and, after incorporating input from the Department, case managers participating in the pilot, and stakeholders, those changes were incorporated into the assessment.

[1] The target of 30 paired assessments was based on the benchmark used under the CMS funded FASI reliability effort.

PROJECT OUTCOMES

RECOMMENDED NF-LOC CRITERIA

Draft NF-LOC criteria were tested using a Microsoft Excel-based modeling file that showed the impact of different criteria on who gained or lost eligibility in comparison to the ULTC 100.2. The model also showed the impact of different populations and waivers and which of the pathways to eligibility (functioning, behaviors, and/or cognition) resulted in these changes. The model was set up so that each item could be used as a lever that could be manipulated to understand the impact of the choice of different responses on eligibility.

Because data collection for adults was completed in July 2019 and data collection for children was extended to January 2020, draft NF-LOC for adults was developed first. The first draft of the criteria was created using the following processes:

1) Selecting the items that best replicated the constructs included in the current LOC determination assessment, the ULTC 100.2;
2) Identifying items that were the strongest predictors of LOC eligibility and removing items that were playing little or no additional role in this determination;
3) Adjusting the remaining levers to find the combinations that resulted in the fewest people losing or gaining eligibility; and
4) Simplifying the criteria by removing items that did not impact who was eligible

HCBS Strategies presented three draft criteria scenarios to show the outcomes of various thresholds and better inform the direction of future modeling efforts:

- Scenario 1: Most Restrictive
    - Hands on assistance for two or more ADLs
    - Currently requires interventions and/or displays symptoms AND requires cueing, physical, or planned intervention two or more times per day for at least one behavior
    - Severely impaired in one or more memory and cognition category or rarely/never expresses self to others
- Scenario 2: Less Restrictive
    - Hands-on assistance for two or more ADLs
    - Currently requires interventions and/or displays symptoms AND requires cueing intervention two or more times per day OR physical intervention or planned intervention more than once per week up to daily
    - Moderately impaired in one or more memory and cognition category or frequently exhibits difficulty with expressing self to others

- Scenario 3: Least Restrictive
    - Supervision or touching assistance for two or more ADLs
    - Currently requires interventions and/or displays symptoms AND requires cueing, physical, or planned intervention more than once per week up to daily for at least one behavior
    - Moderately impaired in one or more memory and cognition category or frequently exhibits difficulty with expressing self to others

In October 2019, Department staff recommended proceeding with Scenario 2 as the draft criteria.

HCBS Strategies then conducted a series of meetings with Department staff and stakeholders that led to revisions in the draft criteria. During those meetings Department staff and/or stakeholders would suggest possible changes. HCBS Strategies explored the impact of those potential changes through a combination of modeling, review of individual files, and discussions with case managers who worked with participants whose eligibility could change under the draft criteria. There were six three-hour meetings with stakeholders spread over three site visits from October to December 2019.

These discussions resulted in a consensus about the NF-LOC for adults after the following changes were made to the initial draft NF-LOC criteria included:

- Counting use of a cane or walker in meeting the mobility and transferring ADLs
- Allowing participants to meet the threshold for one ADL if they had lost a limb or were paralyzed
- Allowing individuals with two or more mild impairments in executive functioning (planning, judgment, and problem-solving) to meet LOC
- Removing the most dependent ADL items, which capture information about the participants support needs over the past 30 days, and keeping the usual performance ADL items, which capture support needs over the past three days
- Parsing down the number of items used for determining LOC

In addition, reviews of the files and discussions with case managers also identified inconsistencies in scoring that affected whether a participant met LOC.

The revised NF-LOC for adults is met if any of the following are met:

- Meeting two or more of the ADL criteria:
    - Partial/moderate and higher assistance in bathing, dressing, toileting, walking ten feet, transferring, or eating

  - Requiring supervision or touching assistance with walking 150 feet or walking outside
  - Requiring support with bowel or bladder equipment or utilizing a bowel or bladder program
  - Using a wheelchair, walker, or cane for mobility
  - Using a walker or cane for transferring
  - Having a diagnosis of paralysis or a missing limb
- Meeting one or more memory and cognition criteria:
  - Moderately impaired in one or more memory and cognition category
  - Frequently exhibits difficulty with expressing self to others the participant is familiar with
  - Two or more mild impairments in executive functioning (planning, judgment, and problem-solving)
- Meeting one or more behavior criteria:
  - For the behaviors injurious to self, physically aggressive, or property destruction, participant currently requires intervention or displays symptoms AND requires cueing or physical intervention more than once per month and up to weekly OR requires planned intervention less than monthly
  - For the behavior verbally aggressive towards others, participant currently requires intervention or displays symptoms AND requires cueing or physical intervention more than once per month and up to weekly OR requires planned intervention less than monthly AND the behavior buts the participant or others at risk
  - Responding that it is very likely that dangerous or disruptive behaviors would reoccur in the behavior categories of injurious to self, physically aggressive, property destruction, or verbally aggressive towards others if HCBS waiver services were removed
- The Department also identified that criteria should be incorporated into the assessment of ADLs to capture whether the participant required substantial intermittent support over the past 30 days. After each ADL section there is a follow-up item that asks “Has the level of support the participant needs for (ADL) varied over the last 30 days”. If the assessor responds yes to this item, follow-up items on frequency, duration, and scope appear.

  A participant may meet LOC if the response to the trigger item “Has the level of support the participant needs for mobility varied over the last 30 days” is Yes for:

- Two or more ADLs OR
- One or more ADLs if one ADL threshold above has been met

However, if the item "Has the level of support the participant needs for mobility varied over the last 30 days" is used to meet LOC, a review process will need to occur to confirm that the variable support rises to the level of meeting NF-LOC. The mechanism for this review process will be determined by the Department. Additionally, these items were added after the conclusion of the Time Study pilot, therefore the Department will need to capture additional data to establish thresholds for meeting these criteria.

- A recommendation for the final pathway for meeting LOC is through the Material Improvement Review Process (MIRP). MIRP provides participants who no longer meet LOC at reassessment the opportunity to demonstrate whether the loss of eligibility will lead to deterioration that is substantial enough to cause the participant to meet LOC within three months. The Department will need to further discuss how this will intersect with the appeals process before making a final decision on whether to implement MIRP.

HCBS Strategies then modeled the impact for children and held discussions with Department staff and stakeholders to refine the criteria. Based on these discussions, the following changes were made to the criteria:

- Separate ADL criteria were included for participants ages 0-3 using the criteria from the Functioning Ages 0-3 module. The participant needs to have age-specific support needs in two or more ADLs AND indicate that the support need is intended to last more than one year

Exhibit 5 shows the changes from the draft criteria to the final criteria. In the pilot sample, 390 participants met LOC on the ULTC 100.2 while 23 did not. Under the initial draft criteria, 62 (16%) of the 390 participants who met LOC under the ULTC 100.2 no longer met LOC, while 48% of the 23 people who did not meet LOC under the ULTC 100.2 met LOC under the criteria using the new items.

Exhibit 5: Number of participants for whom NF-LOC changes from the ULTC 100.2 based criteria to the criteria based on the new items – comparison of the results from the initial criteria to the final criteria

Pilot Population	No Longer Meet LOC		Now Meet LOC	
	#	%	#	%
Initial Criteria				
All	**62**	**16%**	**10**	**48%**
Aged & Physical Disabilities	27	22%	5	45%
IDD	13	13%	1	100%
Mental Health	15	16%	4	50%
All Children	7	9%	0	0%
Final Criteria				
All	**6**	**1%**	**3**	**25%**
Aged & Physical Disabilities	3	2%	1	17%
IDD	0	0%	0	0%
Mental Health	0	0%	1	20%
All Children	3	3%	1	100%
Change from the Initial Criteria				
	#	%	#	%
All	**-56**	**-90%**	**-7**	**-70%**
Aged & Physical Disabilities	-24	-89%	-4	-80%
IDD	-13	-100%	-1	-100%
Mental Health	-15	-100%	-3	-75%
All Children	-4	-57%	+1	50%

In contrast, under the final criteria, only 6 (1%) of the 390 participants who met LOC under the ULTC 100.2 no longer met LOC (a drop of 90% from the initial criteria), while 25% of the 23 people who did not meet LOC under the ULTC 100.2 met LOC under the criteria using the new items (a drop of 70% from the initial criteria).

RECOMMENDED HOSPITAL LOC CRITERIA

For several of its waivers, the Department needs to have both a NF-LOC and a hospital level of care (H-LOC) to meet federally mandated budget neutrality requirements for 1915(c) waivers. By classifying high-cost individuals as meeting H-LOC and comparing their costs to average hospital costs (which are substantially higher), the State can meet budget neutrality for the remaining

participants who only meet NF-LOC. Colorado also uses H-LOC as the sole eligibility criteria for its Children with Life-Limiting Illness (CLLI) waiver.

The Department does not have a prospective and standardized methodology for establishing hospital level of care (H-LOC). Therefore, one of the goals of the project was to create prospective, standardized H-LOC criteria for the waivers that use H-LOC.

Using data from a pilot of the new assessment process, HCBS Strategies modeled H-LOC criteria to establish standardized and prospective H-LOC criteria that will classify sufficient numbers of participants with high costs as meeting H-LOC to allow the Department to meet both the H-LOC and NF-LOC budget neutrality requirements included on CMS Form 372. This modeling effort also examined the impact on eligibility for children because H-LOC also establishes eligibility for many children, notably those on CLLI.

While Colorado can only have one NF-LOC criteria that is applied to all its 1915(c) waivers as well as nursing facilities, it may choose to have different H-LOC. The Centers for Medicare & Medicaid Services (CMS) allow this because people go into hospitals for a variety of reasons. The Department gave guidance that while it is preferable to have the same H-LOC criteria across waivers, it was more important to minimize disruptions in eligibility and meet budget neutrality requirements.

It was possible to establish a single H-LOC criteria across the waivers serving adults. This draft H-LOC criteria is that the individual meets the nursing facility LOC and requires substantial assistance or is fully dependent on supports in the past three days on any of the following activities of daily living (ADLs) from the new assessment[2]:

- Bathing
- Dressing – Upper Body
- Dressing – Lower Body
- Toilet Hygiene
- Toilet Transfer
- Chair to Bed Transfer
- Eating
- Tube Feeding

It is possible to simulate a similar H-LOC for the adult waivers using the current ULTC 100.2 data by classifying people who received a score of 3 or higher on one or more of the 100.2 ADLs that correspond to the ADLs from the new assessment and who met the nursing facility LOC as meeting H-LOC.

[2] The draft H-LOC uses many of the same assessment items used for establishing NF-LOC, however, H-LOC uses a more stringent response option, substantial assistance or higher. The Substantial/maximal assistance response is defined as, "Helper does more than half the effort. Helper lifts or holds trunk or limbs and provides more than half the effort."

The adult H-LOC criteria (using items from the new assessment versus ULTC 100.2 items) for the pilot participants results in budget neutrality amounts that fall well below the CMS Form 372 (using data from SFY 2017-2018) thresholds for all relevant adult waivers.

It was necessary to craft distinct H-LOCs for the Children's Home and Community-Based Services (CHCBS) and CLLI waivers to minimize disruptions in eligibility and meet budget neutrality. The analysis revealed that a substantial number of children on the CHCBS waiver were medically-fragile but did not meet the NF-LOC criteria. To allow these children to maintain eligibility, medically-fragility criteria were added as a pathway through which children could become eligible under the H-LOC criteria for CHCBS. The medical fragility criteria were based on criteria developed by the State of New York.

The proposed H-LOC for CHCBS is a combination of the adult H-LOC and the medical fragility criteria. Under this proposal, a child would meet H-LOC for this waiver if they meet the following:

- Meeting the draft H-LOC for adult waivers: the participant meets the NF-LOC criteria AND requires substantial/maximal assistance in one or more ADL categories; OR
- Meeting at least one of the following medical fragility criteria:
    - Requiring a medical device to compensate for the loss of a vital bodily function and substantial and ongoing nursing care to avert death or further disability.
    - Complex medication regimen or medical interventions to maintain or improve health status, OR
    - Need for ongoing assessment or intervention to prevent serious deterioration of health status or medical complications that place life, health, or development at risk

Based on the modeling from the pilot, HCBS Strategies proposed that H-LOC for CLLI be set at the same as NF-LOC but also require a diagnosis of a life limiting illness. Because only a limited number of children on CLLI were included in the sample, the Department and HCBS Strategies conducted an additional effort to obtain information about the impact of the draft criteria on all of the children on this waiver. Under this effort, the Department and HCBS Strategies shared a simplified LOC spreadsheet with all agencies that oversaw the CLLI waiver. This spreadsheet allowed the user to identify whether each CLLI participant they worked with met the proposed ADL, behavior, and/or memory and cognition criteria. After receiving data from all of the agencies supporting CLLI and having discussions with the CLLI case managers about children that did not appear to meet the draft H-LOC, it became clear that there this waiver also served a substantial number of medically fragile children who did not meet NF-LOC. The discussions with the CLLI case managers indicated that adding medical fragility criteria similar to that proposed for CHCBS would allow all of the children currently on CLLI to meet H-LOC.

The final H-LOC for CLLI is that these children must have a diagnosis of a life limiting illness AND meet one of the following: meet NF-LOC OR be medically fragile using the same definition of medical fragility used for CHCBS.

MODIFICATIONS TO THE ASSESSMENT AND SUPPORT PLAN

Throughout the pilot process HCBS Strategies engaged three primary groups outside of the Department to obtain feedback on the draft A/SP process and input on the proposed changes:

- **Stakeholder advisory group -** The Department recruited a stakeholder advisory group comprised of individuals receiving services, family members, advocates, providers, case management agencies, and other community members to inform the development, piloting, and implementation of the new A/SP process. Throughout the pilot process, HCBS Strategies has provided briefings to this group and obtained their feedback through over 40 hours of in-person and remote meetings.
- **Case managers -** Throughout the pilot process case manager feedback was obtained via regular web-enabled check-in meetings; feedback sheets completed after each A/SP session; and the Help Desk operated by HCBS Strategies.
- **Individuals seeking or receiving services and their representatives who participated in the pilots -** Throughout all pilot phases case managers recorded participant feedback within their feedback sheets. Participant's direct feedback about their experience with the A/SP was collected by HCBS Strategies via phone or email during the Support Plan and Time Study pilots.

In addition to the narrative feedback provided by these groups, HCBS Strategies also conducted the following analyses on the 413 participants assessed during the LOC and NF/H-LOC & Reliability pilots to identify items that could be updated or removed from the pilot process.

- **Reliability Analyses -** Discussed in detail in the *Reliability Analyses Report*, these analyses were used to identify items with low inter-rater reliability that could potentially be improved or removed from the A/SP item set.
- **Factor Analyses -** Factor analyses, which provide the intercorrelations of constructs, were conducted for domains within the assessment that contain multiple items measuring similar constructs (e.g., items measuring the transferring constructs and mobility constructs). For example, the transferring section of the Functioning module contained seven types of transferring tasks. Factor analyses revealed that these seven items were highly correlated in measuring the overall need for support with transferring, so this list of seven transferring tasks was pared down to three. These analyses allowed us to simplify the assessment while maintaining the integrity of the constructs it measures.
- **LOC Analyses -** Discussed further in the *LOC Pilot Comparative Analyses Report*, HCBS Strategies used a modeling spreadsheet to identify items that were most predictive of an individual meeting Nursing Facility-Level of Care (NF-LOC). This modeling exercise,

along with the reliability and factor analyses, allowed us to recommend removing certain items that were not necessary for establishing NF-LOC.

In addition, HCBS Strategies, the Department, and the automation vendor DXC made extensive updates to the A/SP process based on feedback received throughout the pilot process. The changes focused on:

- Removing and/or simplifying items
- Reducing redundancies
- Streamlining the flow of the process, such as grouping similar constructs together
- Identifying opportunities for enhancements and coordination in the future IT system

All of these updates were also reviewed with stakeholders.

PARTICIPANT FEEDBACK ABOUT THE NEW PROCESS AND THE PARTICIPANT HANDBOOK

During the final pilot phase, the Time Study pilot, HCBS Strategies conducted targeted outreach to pilot participants via phone and email to discuss:

- The usefulness of the *Colorado Community Living Handbook,* which was shared with all participants to inform them of their rights, responsibilities, waiver and service options, and the setup of the new A/SP process; and
- Their experience with the A/SP process and opportunities to improve it.

Of the 102 Time Study pilot participants, 63 participants and/or representatives volunteered to be contacted. HCBS Strategies completed 30 handbook interviews and 42 A/SP interviews.

Almost all participants thought the handbook helped them understand the LTSS system and A/SP process. Almost all participants recommended that the case manager be required to discuss the handbook with all participants, including at reassessment. Most participants did not think that anything should be added to the handbook or that any of the parts of the handbook were unclear.

Participants generally appreciated the new A/SP process and did not think anything should be removed or added. Twenty-five participants (58%), including many who have worked with their pilot case manager for several years, thought that the questions were in-depth and helped case managers understand them better. Thirteen participants (30%) reported that they felt the process was too long, citing that questions required detailed responses and/or were repetitive.

The following changes could be made to the handbook to address participant feedback:

- Developing a list of common resources for each local area
- Enhancing plain language and readability by spelling out the first instance of an acronym the first time it is used on each page
- Developing versions of the handbooks that are tailored to certain populations (e.g., children)
- Moving the handbook discussion to the beginning of the A/SP process

The following changes were made to the A/SP process to address participant feedback:

- Identifying and removing redundant questions
- Sharing information about developing goals prior to the Support Plan meeting
- Ensuring that participants are prepared for the A/SP process
- Ensuring that all questions are age-appropriate

AVERAGE TIME FOR COMPLETION OF THE ASSESSMENT AND SUPPORT PLANNING PROCESS

Twenty assessors participated in the Time Study pilot and captured data on 102 participants. The average time across all populations for completing the entire A/SP process, which includes scheduling and logistics, file review, the LOC Screen, Comprehensive Assessment, Support Plan, Follow-up, and other, undefined tasks, was 266 minutes (four hours and 26 minutes). The population that overall took the longest time to complete the assessment was adults with IDD (309 minutes, 44 minutes above the average), while children with IDD took the least amount of time (231 minutes, 35 minutes below the average). All other populations were within 20 minutes of the average A/SP time.

HCBS Strategies also examined how case manager familiarity, defined as previously conducting a ULTC 100.2 or pilot assessment with the participant, impacted A/SP time. On average, A/SPs took 39 minutes less for participants with whom the case manager was familiar compared to participants with whom the case manager was unfamiliar. The populations most impacted by familiarity with the participant were children with IDD, who took 85 minutes more when the case manager was not familiar with them compared to those familiar with the participant, and adults with physical disabilities at 66 more minutes.

The Time Study pilot made clear that the Department will need to evaluate and update case management rates to reflect the changes in time to complete the new A/SP process. The new A/SP process will subsume many of the core (e.g., ULTC 100.2 and Service Plan) and supplemental (IADL assessment, CES application, SIS assessment) forms used as part of the current process, and rates should reflect these new responsibilities. The limitations of the data and pilot challenges also make clear that additional time study data should be captured, either prior to or at the onset of the statewide rollout of the A/SP process. The A/SP will continue to evolve as the Department finalizes the IT system and this, coupled with the limitations of the data due to COVID-19, may substantially impact the time it takes to complete the process.

Benefits of the New Process

The Department developed the new assessment process to address the following concerns about the ULTC 100.2:

- Does not have established reliability and validity and there is anecdotal evidence that staff conducting assessments interpreted the items differently.
- Does not collect all the information necessary to make other decisions, notably support planning.
- Fails to collect core information identified by the CMS under the Balancing Incentives Program (BIP), which the Department considers as a best practice.
- Inconsistent with requirements under CMS' HCBS rules, notably, it lacks person-centered elements.

Department staff and stakeholders indicated that a new assessment process should meet the following objectives:

- Determine eligibility for a wide variety of programs targeting adults with a wide range of disabilities
- Drive systems change, including making the system more person-centered; enhancing self-direction; supporting greater coordination of services; and fostering competitive employment
- Support changes to operations, such as an emerging separation of eligibility determination, support planning, and ongoing case management
- Support objective and empirically sound resource allocation
- Guide the development of the Support Plan
- Enhance quality management efforts, including measuring quality of life and participant experience

The new assessment and support planning process corrects all of the concerns about the ULTC 100.2 and meets objectives set by the Department and stakeholders at the beginning of the process:

- The new process includes items for which reliability and validity have been previously established. The pilot demonstrated that those items and additional added to the assessment were reliable.
- The new process collects information necessary to support a wide variety of decisions beyond whether the participant meets LOC. Currently, the new process also determines

eligibility for specific waivers and provides much better information for support planning. Once the resource allocation work is completed, the new process should also bring more consistency and fairness to the assignment of individualized budgets.

- The process collects all information identified by CMS under BIP.
- The new process includes numerous enhancements designed at making the process more person-centered including:
    - Capturing participants' strengths and preferences as well as needs early in the process and at critical points, such as when information about the need for support for ADLs is collected and when services are identified in the support plan.
    - Placing collecting information about and acting upon participants' goals at key points in the process. The discussion about goals is intended to start at the very beginning of the process. Goals are agreed upon before the identification of services with the intent that goals will drive services.
    - Including processes for educating participants and their representatives about the process so that they can make informed decisions. Participants are given the Participant Handbook at the beginning of the process and protocols that require the case manager to offer to educate the participant and/or proxy about the process are embedded at several points in the process.
    - The process includes several protocols that could allow participants to have more control and be more integrated within the community. Protocols include those addressing support for self-advocacy, opportunities for competitive employment, and making an informed choice about where to live.
    - Participants are given the choice to opt out of parts of the process that are not necessary for establishing eligibility, determining resources, or meeting federal requirements. The process also includes a protocol to ensure that participants are informed of this right.
- The new process also creates quantifiable documentation that the State is complying with several mandates under CMS' HCBS rules, such as:
    - Attestation that the participant was able to choose when and where the process occurred and who would participate.
    - Documentation of the rationale for and plan for removing any restrictions on the rights identified in the HCBS settings portion of the rule.
    - Documentation that other CMS rule requirements, such as choice of waiver, residence options, and any disagreements within the planning team, were met.

BENEFITS OF THE NEW PROCESS

- HCBS Strategies also proposed a quality management framework that would take advantage of the information collected during the A/SP process. This framework identifies how items within the A/SP can be used to use quantify quality of life and participant experience. The process has embedded protocols embedded that are intended to provide direct feedback to the case manager and collect data for performance measures. For example, because participants rank how meaningful goals are to them, case managers are likely to explore whether to change goals for which a participant gives a low score.
- The new process also contains protocols to collect information about systemic challenges that may prevent participants from receiving support that they need or prefer. Examples of systemic challenges could include restrictive rules or a lack of providers.

Areas for Improvement

There are two primary portions of the A/SP process that should be the focus of improvement efforts.

AUTOMATION

There were substantial challenges with the Aerial automation platform that impacted the user experience, ability to use data input into the system, and time it took to complete the A/SP process. A primary issue was that the IT vendor attempted to recreate the Microsoft Word versions of the A/SP as written without having a thoughtful planning process on how to best build the modules in the system. Based on the experience with automating the Microsoft Word versions of the process, the Department and HCBS Strategies made extensive changes to provide specific guidance for how they should be automated. Moving forward, we strongly recommend that the Department works directly with the automation developers, rather than project managers and executives, to better coordinate on how the A/SP can be optimized in the new automation environment.

Another key consideration will be building the A/SP in a manner that will allow the Department to build key management reports. This functionality was missing in the Aerial system and will be critical for a successful and sustainable process.

Finally, the Department should continue to work with the automation vendor and case managers to optimize the flow of information throughout the system. For example, pulling the guardian information and communication preferences to the participant record will reduce the need to ask specific items while in person and shorten the A/SP process.

TRAINING

The Department has succeeded in developing a reliable person-centered A/SP process, however, training, along with automation, will determine the success of the new A/SP process. The pilot trainings provided several lessons learned for trainings that will occur as part of statewide rollout.

- **Provide In-person Trainings and Supplement with Various Training Modalities-** The intent was to conduct all pilot trainings, except for the Time Study pilot, in-person. Because of significant inclement weather, two trainings (Greeley LOC pilot and Greeley NF/H-LOC & Reliability Pilot) were held remotely. Trainees in the in-person trainings were more engaged and interactive, had fewer opportunities for distraction, and had a higher pilot retention rate. The extensive A/SP content and the significant differences from Colorado's current process would most significantly benefit from an immersive learning experience that would be challenging to provide via a web-enabled call. These in-person trainings will be important to build the knowledge foundation, however combining these trainings with

web-enabled workshops, self-paced online learning, and video tutorials will provide a diverse learning environment. It is recommended that the Department explore research-based effective training modalities for statewide implementation.

- **Conduct the Trainings in Phases-** Because the new A/SP process substantially differs from Colorado's current assessment process, case managers would benefit from a phased training approach that teaches and then allows for real world use before moving to the next phase. Attempting to conduct the trainings in one or two sequential day sessions would overwhelm many case managers, resulting in their focus being diverted from the current presentation to questions on items previously discussed.

  We recommend the following:

  - **Step 1: LOC Screen training-** Begin with creating a foundation using the LOC Screen. The items that most substantially differ from the ULTC 100.2 are functioning and behaviors, which are contained in the LOC Screen. Training on these core areas first allows the Comprehensive Assessment training to focus on other, potentially less time-intensive constructs and also provides more opportunities to utilize the constructs in the LOC Screen. This training should take 6-8 hours. Because the LOC screen is comparable to the ULTC 100.2 and can be used to establish LOC, the initial phase of the implementation could be only the LOC screen with no changes to the rest of the case managers work. This phase could last from two weeks to a month.
  - **Step 2: Comprehensive Assessment training-** This training should focus on the Comprehensive Assessment constructs that were not discussed during the LOC Screen training. This training should take 1-2 full days. During this phase, case managers would use current mechanisms for completing the support plan. This phase could last from two weeks to a month.
  - **Step 3: Support Plan training-** The Support Plan is critical for capturing all of the goals, needs, and other action items from the Comprehensive Assessment. The Support Plan also significantly differs from the Department's current Service Plan format. This training should first provide an in-depth review of items and flow and also provide several activities that simulate the completion of a Support Plan. This training should take 1-2 full days. This would be the final phase of the rollout.

  While a phased approach is recommended, it is also important to consider the timelines for all projects related to the A/SP and potential complexities around data migration that may limit the ability of the Department to execute this approach.

- **The Department Should be Cautious about a Train the Trainer Approach -** The pilot included some of the most adept case managers in Colorado, however, even during the

Time Study pilot, after dozens of exposures to A/SP constructs, case managers still had questions and needed clarification and follow-up to accurately complete the process. Training should be provided by experienced trainers who are intimately familiar with the setup, content, item intent, and real-world utilization of the A/SP process. Allowing local case manager superusers to respond to post-training questions would allow for peer to peer support, however, relying on the superusers to provide the trainings could result in stark regional differences in reliability and how the A/SP is implemented.

- **Focus on Topics that were Most Challenging for Pilot Case Managers -** Pilot case managers, stakeholders, Department staff, and the reliability analyses identified several challenging topic areas that should be a major focus of the trainings. These include:
    - **ADL and IADL Scoring -** The new assessment process requires the assessor to consider the support needed for the participant to safely complete an ADL or IADL activity with the supportive equipment they typically use when performing the activity. This is a departure from the ULTC 100.2 assessment, where assessors are identifying performance and, to an extent, support needed without the use of equipment. The effective inclusion of training on what *safely completing* a task means and emphasis on support needed when using equipment will be critical to the success of the assessment process, as they are a major change in the eligibility determination process under the LOC Screen.
    - **Executive Functioning -** Executive functioning encompasses the Memory & Cognition constructs of problem solving, planning, and judgement. These constructs new to case managers and were especially challenging for case managers to consider when a participant has cognition impairments, behavioral health concerns, or mental health conditions because it was challenging to try to determine how the diagnosis was impacting their cognition. For example, a case manager said that a participant with schizophrenia they work with is capable of cleaning-up after himself and not leaving rotting food around his house, he just chooses not to. However, after discussing the construct of judgement further, it appeared that "chooses not to" was actually an impairment in judgement related to the individual's schizophrenia diagnosis. It was not that the participant lacked the ability to clean-up, he lacked the judgement to realize that this was unsanitary and could have broader implications for his living situation. Because these executive functioning tasks also play a role in the eligibility determination process, this will be essential to clarify and provide training on.
    - **Facilitating Person Centered Discussions -** Many case managers shared that they feel that they are already sufficiently person-centered. However, discussions about and contents of the Personal Story module reveal that there are ample opportunities

for growth in this area. Person-centered discussions should place the participant at the front of the process and empower him/her to lead the process, make decisions, and shape the Support Plan.

- **Developing Person-Centered Goals -** Even with extensive training on developing person-centered goals, this was an area that required oversight and feedback before case managers were able to create articulate goals that were truly person-centered. Many case managers struggle to write goals from the participant's perspective and also find it challenging to develop goals that the case manager would not be able to directly address. A specific focus of this training should be older adults. While the goals of older adults may look different, for example many are not looking for employment or education opportunities, it will be important to emphasize that all individuals have goals, they may just look different for different populations.
- **Linking Authorized Services to a Goal or Assessed Need -** During the Support Plan and Time Study pilots, data reviews revealed that the CMS requirement that all services be linked to a goal or an assessed need was not being consistently met. Many case mangers felt that it was sufficient to identify the need in the assessment, however they also need to go a step further and identify this need and how services are addressing it within the Support Plan. The Department is exploring mechanisms for further imbedding this in the Support Plan process and future training should address this challenge.
- **Approaches for Discussing Sensitive Topics -** Case managers reported being uncomfortable raising certain topics such as those included in the Suicide and Homicide Screen. Training that provided approaches and examples of how to bring-up these tough discussions would allow case managers to be more comfortable and participants to have a better A/SP process.
- **Facilitating Difficult Conversations and Managing Conflict** - A goal of the A/SP is to facilitate conversations among participants and their support network about goals, preferences, and risks. Case managers were often unsure what approach to take when there was disagreement among the individuals participating in the process, such as when a teenager or young adult wants more independence, but a parent is concerned about risk. Training could focus on the importance of having these conversations and strategies for building compromises and consensus.

- **Develop an Ongoing Review and Learning Process -** Given the significant changes, case managers will likely struggle with the transition to the new A/SP process. A management review process, potentially conducted by the Department, local agency, and/or third party quality assurance agency, should be implemented to support the collection of accurate,

timely data that truly reflects the participant's case. This process, especially upon initial statewide rollout, should be supported by regular learning meetings and refresher trainings to allow for sustained growth.

- **Use the Manuals to Facilitate Trainings -** HCBS Strategies utilized PowerPoint presentations that summarized information from the A/SP training manuals during the LOC Screen and NF/H-LOC & Reliability pilots and trained directly from the training manuals during the Comprehensive Assessment and Support Plan pilot trainings. Case managers reported that they strongly preferred working directly within the manuals. They reported that the manuals provide more information and examples, were easier to reference, and allowed them to take notes directly in the document they would be using after the trainings.
- **Provide as Many Activities and Examples as Possible -** Because the trainings focus heavily on teaching entirely new constructs, relying solely on the guidance in the manuals can be tedious and challenging to apply to all real-world situations. Examples and interactive activities not only break up the trainings, but also allow demonstrate how to think critically and accurately respond to the items. Additionally, case managers' understanding of assessment items should be tested at regular intervals.

CONCLUSION

Conclusion

The pilot achieved the following major objectives:

- Reliability was established for individual items.
- The content of the process was refined and streamlined, and case managers were able to successfully use it in the field.
- NF-LOC and H-LOC criteria were established for which modeling demonstrated should minimize changes in eligibility.
- Estimates were developed for the amount of time the process takes.

The challenges presented by issues with the automation and the inability to conduct in-person assessments because of COVID-19 prevented the pilot from simulating what will occur when the process is rolled out statewide.

The finding that the case managers were able to successfully use the process despite these challenges suggests that the statewide rollout should work even better given stronger automation and the ability to meet face-to-face.

The estimates from the Time Study pilot present more of an issue. The actual time could be shorter if the automation allows the case managers to be more efficient and if case managers are able to be more efficient when conducting the process in-person. However, in-person meetings may lead to richer conversations and, hence, be more time-consuming. Therefore, we recommend that the Department collect more information about how long the process takes once the new automation is completed and case managers can conduct in-person meetings again.

Despite these challenges, the outcomes of this pilot process, which included substantial input from service recipients, case managers, the stakeholder advisory group, and Department staff, should significantly improve Colorado's eligibility determination, needs assessment, and support planning process.