Colorado's New Assessment and Support Plan Time Survey Report

Report 5 for the Colorado Assessment and Support Plan Pilot
Prepared for the Colorado Department of Health Policy and Financing

HCBS STRATEGIES INCORPORATED

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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 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 Uniform Long-Term Care (ULTC) 100.2.

The pilot process culminated in the Time Study pilot. The Time Study pilot provided the Department with data on the average time it takes case managers familiar with the assessment and support planning (A/SP) process and automation to complete the process. The Time Study pilot was immediately preceded by the Comprehensive Assessment and Support Plan pilots, which were intended to allow assessors to become familiar with both the A/SP process and the flow of the process in the Aerial Case Management IT platform.

Twenty assessors participated in the Time Study pilot and they conducted the A/SP process with 102 participants. The average time across all populations for completing the entire A/SP process was 266 minutes (four hours and 26 minutes). The A/SP process with adults with intellectual or developmental disabilities (IDD) took the longest (309 minutes, 43 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 38 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 were children with IDD, who took 152 minutes more when the case manager was not familiar with them compared to those familiar with the participant, and adults with physical disabilities at 76 more minutes when the case manager was not familiar with them.

Several challenges that likely impacted the findings were: problems with the automation; the need to conduct the A/SP by telephone or other electronic method during the time study because of COVID-19; and additional updates to the A/SP process that were made two weeks into and following the pilot that will likely impact the time to complete the process.

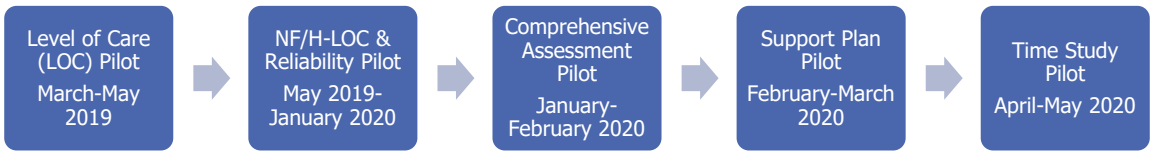
The new A/SP process will replace many of the core (e.g., ULTC 100.2 and Service Plan) and supplemental (Instrumental Activities of Daily Living (IADL) assessment, Children's Extensive Support waiver (CES) application, Supports Intensity Scale (SIS) assessment) forms used as part of the current process. The Time Study pilot will help the Department make decisions about whether case management rates should be revised to reflect the new A/SP process.

BACKGROUND

Background

The Department contracted with HCBS Strategies to pilot the new assessment and support planning (A/SP) process 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; the ability of the current tool to support a person-centered process, including the development of a person-centered Support Plan; and a need for understanding how long the new process takes. Senate Bill 16-192, which was enacted after the Department began developing a new assessment and support planning process, added a legislative mandate to create a single assessment for all individuals seeking or receiving long term services and supports (LTSS).

The new A/SP process was piloted in five phases:



The Level of Care (LOC) and the Nursing Facility (NF)/Hospital (H) LOC pilots were conducted to familiarize case managers with a core subset of assessment constructs, such as functioning, behaviors, and memory and cognition, and provide data for analyses of item reliability and the development of a new LOC methodology.

Significant challenges with the Aerial Case Management Information Technology platform, discussed later in this report, caused a four-month delay in the pilot process. This impacted case managers' familiarity with the A/SP constructs and required case managers to learn a new iteration of the Aerial system for the Comprehensive Assessment, Support Plan, and Time Study pilots. To address these challenges, HCBS Strategies adapted the Comprehensive Assessment and Support Plan pilots to allow case managers to become more familiar with the full A/SP process.

- The **Comprehensive Assessment pilot** allowed case managers to pilot the full assessment process, which included both the items that were tested in the NF/H-LOC & Reliability pilot and new mandatory and voluntary items. This also allowed case managers to become familiar with the new iteration of Aerial, Care and Case Management.
- The **Support Plan pilot** was the first opportunity for case managers to conduct the Support Plan. Case managers first conducted the assessment process from the Comprehensive Assessment pilot and then developed a Support Plan with the participant and their support team.

These adjustments allowed HCBS Strategies and the Department to ensure that the data captured during the Time Study pilot was reflective of the time it takes a case manager who is familiar with both the A/SP content and the automation platform to complete the A/SP process.

BACKGROUND

Despite these best efforts, the Time Study pilot was impacted by the outbreak of COVID-19. This required all case managers to work and conduct assessments by telephone or other electronic method, possibly impacting the time to complete the A/SP process. After much consideration, Department leadership determined that it was most advantageous to proceed with the Time Study pilot and conduct further follow-up studies upon statewide rollout.

This document discusses the methodology and challenges for the Time Study pilot, summarizes data captured during the pilot, and discusses the limitations of the results.

Methodology

The Time Study pilot ran from April 6 through May 15, 2020 with the goal of completing 102 A/SPs. Below we discuss the time study assessors, participants, time tracking methods, and challenges.

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. Prior to the LOC Screen pilot, an invitation that emphasized the importance of this effort and the compensation available went out to all case managers. One hundred and twenty-three case managers expressed a desire to participate. Information on the number of assessments these case managers conducted in the past year and the populations they assessed was obtained, and this information 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.
- The geographic area they served, to have a range of agencies and representation in urban, rural, and frontier settings.

The Department, in consultation with HCBS Strategies, decided to use a smaller pool of pilot assessors for the Time Study pilot 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 were the most engaged with providing feedback during the earlier phases were selected.

Four assessors were assigned to each pilot population: adults with intellectual and developmental disabilities (IDD); older adults; adults with physical disabilities; individuals with mental health conditions; and children, who were broken into two cohorts: 1) children with IDD and 2) non-IDD children. **Exhibit 1** provides a breakdown of the number of assessors per pilot population.

Exhibit 1: Pilot Assessors by Pilot Population

Population	# of Targeted Assessors	# of Participating Assessors
Older Adults	4	4
Adults with Physical Disabilities (APD)	4	3
Mental Health	4	3
Adults with IDD	4	5

Children with IDD	4	4
Children non-IDD	4	1
Total	24	20

Exhibit 2 provides an overview of the agencies involved in the Time Study pilot.

Exhibit 2: Agencies Participating in the Time Study Pilot

Agency Name	Agency Type	# of Participating Assessors
Community Options	CCB	1
Developmental Pathways	CCB	3
Mesa County DHS	SEP	3
Montrose County DHS	SEP	1
North Metro Community Services	CCB	2
Otero County DHS	SEP	1
Prowers County DHS	SEP	1
Pueblo County DHS	SEP	2
Rocky Mountain Human Services	CCB	3
San Juan Basin DHS	SEP	1
The Resource Exchange	SEP/CCB	2
Total		20

The Time Study pilot concluded with 20 of the 24 recruited case managers. Two assessors left their agencies between the Support Plan and Time Study pilots and two declined to participate despite confirming their participation prior to the pilot.

Because the Time Study pilot was intended to capture the time the A/SP process takes case managers familiar with the process, and the assessors who were participating in the pilot had received four full day trainings and completed numerous assessments before the Time Study pilot, the Department decided that recruiting additional assessors for the Time Study pilot would confound the data. Several case managers provided assessments for multiple populations when available.

Assessor Training & Support

Case managers participated in the following trainings in 2019 to establish a foundational understanding of the assessment content and flow:

- **LOC Pilot Training:** Web-enabled training on the Aerial CarePlanner automation platform 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, twice in Denver, Pueblo, and Greeley (conducted remotely because of the first 2019 Bomb Cyclone). During this pilot, each case manager completed at least two LOC Screens in the field after this training.

- **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). During this pilot, each case manager was requested to complete at least five Reliability Assessments in the field after this training.

Case managers completed the following trainings and A/SP sessions in 2020 prior to the initiation of the Time Study Pilot:

- **Comprehensive Assessment Pilot**: Web-enabled training on the Care and Case Management automation platform occurred on January 3 & 6, 2020. In-person trainings on the assessment contents and flow occurred on January 10-13, 2020 in Denver, Colorado Springs, and Montrose. During this pilot, each case manager completed at least two comprehensive assessments in the field after this training.
- **Support Plan Pilot**: In-person trainings on the assessment contents and flow occurred on January 27-30, 2020 in Denver, Colorado Springs, and Montrose. During this pilot, each case manager completed at least three comprehensive assessments followed by support plans in the field after this training.
- **Time Study Pilot**: Web-enabled training occurred on April 6, 2020 to provide updates to the automation and A/SP contents and flow.

To provide ongoing support and training and capture feedback from assessors, HCBS Strategies facilitated weekly feedback meetings. Assessors completed feedback sheets after each assessment, competency quizzes to ensure understanding of the assessment items and feedback meeting discussions, and HCBS Strategies also operated a 24-hour Help Desk to answer questions, capture feedback, and address issues throughout the pilot.

PARTICIPANTS

Participants were selected from scheduled ULTC 100.2 initial assessments or reassessments. Case managers were instructed to offer all participants with previously scheduled ULTC 100.2 assessments that fell during the pilot timeframes 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). Participants who did not have a scheduled 100.2 meeting were allowed only after all participants with a scheduled assessment during the Time Study pilot were offered the opportunity to participate.

As shown in **Exhibit 3**, targets were met or close to being met for all pilot populations.

METHODOLOGY

Exhibit 3: Number of Pilot Participant Assessments by Pilot Population

Population	# of Targeted A/SPs	# of Completed A/SPs
Older Adults	16	16
Adults with Physical Disabilities (APD)	16	16
All Older Adults & APD	32	32
Mental Health	20	20
Adults with IDD	16	17
Children with IDD	16	20
All individuals with IDD	32	37
Children non-IDD	18	13
All Children	34	33
Total	**102**	**102**

TRACKING TIME

Time Study Activity Categories

Assessors reported time spent on A/SP related activities using seven categories:

- **Scheduling & Logistics -** Activities include scheduling A/SP meetings, sharing the consent form and Participant Handbook, and answering any pre-meeting questions. This did not include travel time to/from the A/SP because the Department indicated this will not be factored into the A/SP rate.
- **File Review -** Review past assessments and support plans, medical records, and other documentation to become familiar with the participant prior to the meeting.
- **LOC Screen -** Time to pre-fill, complete, and finalize the LOC Screen with the participant, representative, and other individuals informing the process.
- **Comprehensive Assessment -** Time to pre-fill, complete, and finalize the Comprehensive Assessment with the participant, representative, and other individuals informing the process.
- **Support Plan -** Time to pre-fill, complete, and finalize the Support Plan with the participant, representative, and other individuals informing the process.
- **Follow-up -** Activities that occur after the meeting, such as obtaining and providing contact information for referrals. Assessors were required to provide a brief description of this activity to ensure that it did not fall into another time category.
- **Other -** Any other A/SP-related activity that was not captured by another category. Assessors were required to provide a brief description of this activity to ensure that it did not fall into another time category.

Documenting Time Spent on Activities

While Aerial had the ability to capture time related to these tasks directly in the platform, the functionality did not allow accurate time tracking to occur within the system. There were two

options for tracking time within the system; setting an automatic timer that tracked the time the case manager was in the system, or retroactively manually entering time after the activity was completed. However, there were three primary challenges with utilizing Aerial for time tracking during the pilot:

- The platform could not provide sufficient reports that could be used for analyses.
- Unless a participant's record was open in the system, the tracked time would not be assigned to an individual participant. For categories including Scheduling and Logistics, File Review, Follow-up, and Other, this would have resulted in aggregate time for an assessor for that activity across all participants rather than individual participants.
- Using the automated tracker, there was no way to differentiate between when a case manager was actively using the system versus when the case manager was logged in, but not actively using the system. The time would still be tracked if a case manager stepped away to answer a phone call for another participant or left work for the day without selecting the pause/complete button for tracking time.

Because of these challenges, the Department and HCBS Strategies determined that time tracking should occur outside of the Aerial system. HCBS Strategies adapted the protected Google Sheet pilot tracking sheet that assessors used to sign-up for A/SP sessions to capture this time. Columns were added to capture the time spent on each activity for each participant.

Exhibit 4: Google Sheet Used for Tracking Time

	A	B	N	O	P	Q	R	S	U
1	Case Manager Name	Participant #	Time (Hr. & Min.) on Scheduling & Logistics	Time (Hr. & Min.) on File Review	Time (Hr. & Min.) on LOC Screen	Time (Hr. & Min.) on Comprehensive Assessment including Personal Story	Time (Hr. & Min.) on Support Plan	Time (Hr. & Min.) on Follow-up	Time (Hr. & Mi Other
2		Participant 1							
3		Participant 2							
4		Participant 3							
5		Participant 4							
6		Participant 5							
7	Allison Schnell	Participant 6	3 minutes	14 minutes	40 minutes	1 hour 59 minutes	23 minutes	25 minutes	
8		Participant 7	10 minutes	1 hour 29 minutes	12 minutes	1 hour 50 minutes	19 minutes	34 minutes	
9		Participant 8	16 minutes	1 hour 32 minutes	18 minutes	1 hour 18 minutes	1 hour 57 minutes	24 minutes	
10		Participant 9	16 minutes	25 minutes	52 minutes	3 hours 10 minutes	54 minutes	15 minutes	

Incentivizing Timely Data Entry

Because time was not tracked directly in the Aerial system, during the initial training and each weekly check-in meeting HCBS Strategies emphasized the importance of documenting time immediately after the activity occurred to ensure that accurate time was captured. HCBS Strategies also structured payments that incentivized timely time tracking data entry using the following methodology:

- $360 per A/SP for A/SPs, including time tracking data, completed within 24 hours of the meeting
- $338 if within 3 days
- $325 if within 4-7 days
- $300 if >7 days with $25 decrease for each additional late week

Payments were not generated until the A/SP was completed in the system, feedback and consents were securely shared with the Help Desk, and time tracking data was entered in the sheet. **Exhibit 5** provides the timeliness of the time tracking data entries.

Exhibit 5: Summary of the Time Tracking Data Entry Timeliness

Timeframe of Data Entry from A/SP Meeting	# of A/SPs Meeting Timeframe
Within 24 Hours	91
1-3 Days	7
4-7 Days	4
>7 Days	0

PILOT CHALLENGES

During the Time Study pilot, there were several distinct challenges that affected the amount of time to complete the assessment; the comfort level of assessors and participants; and overall flow of the assessment process.

Challenges with Automation

- The Department & HCBS Strategies incorporated case manager feedback from the LOC Pilot and Reliability Pilot into the assessment modules in July 2019, following the conclusion of data collection of all adult populations during the Reliability Pilot. The Aerial Care and Case Management system was released in August 2019; however, it did not include July updates, tables, or offline capabilities. The Department wanted to test the full, complete process as it would be used for implementation in the Time Study pilot, and, as a result of automation delays, had to shift the timeframes for the next pilot. The adjusted target for the complete system was shifted to November 2019, then December 2019, and a hard deadline was set for January 1, 2020. The assessment automation was completed on January 1, 2020 and the Support Plan automation on January 26, 2020. Automation of the assessment went relatively smoothly, while automation of the Support Plan encountered several challenges, including:
    - Timeliness and accuracy of requested Aerial automation
    - Support Plan functionality and format, including tables, flow, buttons and color coding, differed substantially from the assessment view
    - DXC, the company that held the automation contract, and Medecision, DXC's subcontractor completing the automation, responsiveness to issues and updates including issues identified during pre-Support Plan testing not being resolved at the conclusion of the pilot
- The updates that were requested at the end of the Support Plan pilot from case manager, participant, and stakeholder feedback were not made before the April 6, 2020 kickoff of the Time Study pilot. Because the pilot could not be pushed back further, the pilot started

with the version of the A/SP used during the Support Plan pilot, and the IT vendor completed the requested updates to the A/SP on April 20, 2020. This resulted in slightly different data in terms of time to complete the assessment before April 20 compared to on or after April 20.
    - Assessments completed before April 20, 2020 (4 hours 27 minutes) took slightly longer than assessments completed on or after April 20, 2020 (4 hours 24 minutes).
- The Department also had to conduct User Acceptance Testing after the updates were implemented and then request additional fixes so as not to subject case managers to an untested version that would make conducting the assessment substantially more difficult.
- Because reporting out of Aerial had substantial defects, HCBS Strategies had to individually review each A/SP, provide detailed feedback to case managers, and request updates where incomplete and/or inconsistent data was recorded.

Challenges Related to COVID-19

Per the direction of the Department, case managers transitioned to conducting assessments and Support Plans by telephone or other electronic modalities due to the COVID-19 pandemic preventing in-person meetings. To support participants and case managers during this time, HCBS Strategies provided the following guidance:

- Conduct multiple phone meetings as necessary
- Keep it conversational
- Include all requested parties in the same meeting when possible

Additional surveys were conducted to capture additional information to understand the impact of this remote transition on time to complete the A/SP.

Other COVID-19-driven changes included:

- Updating consent process to collect follow-up and compensate participants in a timely manner
- Shifting in-person participant focus group to telephone calls

Findings

The following tables display data about the amount of time the entire assessment took to complete, as well as the time to complete each individual section of the assessment. The following exhibits are provided:

- **Exhibit 6:** Average time to complete the A/SP process
- **Exhibit 7:** The weighted average (i.e., each case manager is given equal weight regardless of how many assessments they conducted) and non-weighted average of A/SP broken out by pilot population and individual case manager
- **Exhibit 8:** Average time to complete the A/SP process by pilot population with a comparison to the average
- **Exhibit 9**: Average time to complete the A/SP process by familiarity with the participant
- **Exhibits 10 and 11:** Average time to complete each section of the A/SP process by population and case manager familiarity with the participant

OVERVIEW OF THE TOTAL TIME TO COMPLETE THE A/SP PROCESS

Exhibit 6 shows the percentage of the total A/SP time for each section of the process. On average, the entire A/SP process took 266 minutes, of which 76% was attributed to the Comprehensive Assessment (52%) and Support Plan (24%).

Exhibit 6: Average Time to Complete Each Section of A/SP Process

	Average total time (minutes) across all populations	% total
Scheduling & Logistics	13	5%
File Review	20	8%
LOC Screen	28	11%
Comprehensive Assessment	138	52%
Support Plan	64	24%
Follow-up	2	1%
Other	0.6	.2%
Total Time	**266**	**100%**

SIMPLE AVERAGES OR AVERAGES WEIGHTED BY CASE MANAGER

Although the pilot was designed so that each case manager would conduct the same number of A/SPs, the actual number of A/SPs conducted by each case manager ranged from two to ten. This was because some case managers had fewer scheduled assessments and were less aggressive at adjusting schedules to recruit people who did not have a regularly scheduled assessment. Ideally, the pilot could have run longer to accommodate this, however, delays in the automation and the

firm deadline for the contract prevented this. Therefore, to meet the target number of A/SPs, case managers who conducted their four assigned A/SPs were allowed to perform additional A/SPs to compensate for those who did not.

This creates a challenge for interpreting the data because when using the simple average across all of the cases, case managers who performed more A/SPs had more of an influence on the results. This effect is larger when examining subpopulations because there are fewer cases and case managers. To examine the impact of this, HCBS Strategies calculated both the weighted averages, which give equal weight to all case managers regardless of the number of A/SPs conducted, and non-weighted averages, which provide the average time across each individual A/SP session.

Exhibit 7 provides the weighted and non-weighted averages by individual case manager across pilot populations. The individual case manager averages provide both the overall and population-specific number of A/SPs conducted and average time.

The review of the individual case manager data revealed that two case managers had conducted a single assessment for populations for which their time was substantially different than the other case managers. Because these outliers were disproportionately impacting the weighted averages they were removed. The two outliers were a single A/SP with an older adult (case manager 3) that was substantially higher than the non-weighted average (397 minutes vs. 245 minutes) and a single A/SP with an adult with IDD (case manager 16) that was substantially lower than the non-weighted average (146 minutes vs. 309 minutes). This data was excluded from the weighted averages calculations (denoted with *OWD (omitted from weighted data) in **Exhibit 7**) but maintained for the non-weighted averages.

The weighted average was eleven minutes more than the non-weighted average (277 minutes vs. 266 minutes). This was because case managers who performed more A/SPs were generally faster than case managers who performed fewer A/SPs. However, this pattern differed by population with older adults, mental health, and children with IDD seeing an increase when using the weighted average, while adults with physical disabilities and adults with IDD saw decreases (indicating that case managers who did more A/SPs spent more time on average).

In many cases these differences can be explained by the actions of individual case managers. The average time for case managers ranged from 132 minutes (case manager 16) to 371 minutes (case manager 14).

Children with IDD had one case manager report an average substantially lower (131 minutes) than the other four case managers in this population. Adults with physical disabilities had two of seven case managers conduct A/SPs that were substantially higher than the average (three A/SPs at 354 minute average and four at 331 minute average).

FINDINGS

Exhibit 7: Weighted and Non-weighted A/SP Time by Case Manager and Population (in Minutes)

Case Manager		Total	Older Adults	Adults w/ Physical Disabilities	Mental Health	Adults with IDD	Children with IDD	Children Non-IDD
All CMs- Weighted Average		**277**	250	258	275	297	258	249
All CMs- Non-Weighted Average		**266**	245	278	271	309	231	263
Difference (weighted - non-weighted) in Minutes		**11**	4	-20	4	-12	27	-14
% Change		**4%**	1.7%	-7.3%	1.4%	-3.9%	11.6%	-5.2%
Case Manager 1	# Assessments	**5**	5					
	Avg.	**229**	229					
Case Manager 2	#	**2**	2					
	Avg.	**283**	283					
Case Manager 3	#	**4**	1	3				
	Avg.	**365**	*OWD	354				
Case Manager 4	#	**2**		2				
	Avg.	**216**		216				
Case Manager 5	#	**4**		4				
	Avg.	**331**		331				
Case Manager 6	#	**4**	1	1	2			
	Avg.	**212**	250	210	194			
Case Manager 7	#	**6**	2	2	2			
	Avg.	**295**	288	270	328			
Case Manager 8	#	**10**	5	3	2			
	Avg.	**224**	199	230	276			
Case Manager 9	#	**7**		1	3			3
	Avg.	**216**		194	215			224
Case Manager 10	#	**5**			5			
	Avg.	**269**			269			
Case Manager 11	#	**5**			2	3		
	Avg.	**342**			330	351		
Case Manager 12	#	**5**				5		
	Avg.	**350**				350		
Case Manager 13	#	**4**			2	2		
	Avg.	**273**			301	246		
Case Manager 14	#	**4**				4		
	Avg.	**371**				371		
Case Manager 15	#	**5**			2	2	1	
	Avg.	**228**			286	169	233	
Case Manager 16	#	**9**				1	8	
	Avg.	**132**				*OWD	131	
Case Manager 17	#	**4**					4	
	Avg.	**249**					249	

FINDINGS

Case Manager		Total	Older Adults	Adults w/ Physical Disabilities	Mental Health	Adults with IDD	Children with IDD	Children Non-IDD
Case Manager 18	#	**4**					4	
	Avg.	**318**					318	
Case Manager 19	#	**3**					3	
	Avg.	**358**					358	
Case Manager 20	#	**10**						10
	Avg.	**275**						275

HCBS Strategies used the non-weighted averages, which include all datapoints, for the remaining exhibits within this document.

AVERAGE TIME BY POPULATION

Exhibit 8 displays the time to complete the entire A/SP process by pilot population and provides a comparison to the average time to complete the A/SP.

Adults with IDD took the longest (309 minutes, 43 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.

Exhibit 8: Time to Complete the Entire A/SP process by Population

Population	# of Case Managers	# of Participants	Minutes	Compared to Average	% Different
All Populations	**20**	**102**	**266**	**0**	**0%**
Older Adults	6	16	245	-20	-8%
Adults with Physical Disabilities	7	16	278	13	5%
All Older Adults/APD	9	32	262	-4	-1%
Mental Health	8	20	271	5	2%
Adults with IDD	6	17	309	44	16%
Children with IDD	5	20	231	-35	-13%
All individuals with IDD	9	37	270	5	2%
Children non-IDD	2	13	263	-3	-1%
All children	7	33	247	-19	-7%

A/SP TIME BY FAMILARITY WITH PARTICIPANT

Exhibit 9 provides a summary of the time it took assessors who were or were not familiar with the participant. Case managers were categorized as familiar with a participant if they had previously conducted an assessment, including ULTC 100.2 or pilot assessment, with the participant. Case managers anecdotally reported that generally A/SPs take longer with participants they had not previously assessed.

FINDINGS

Of the 102 pilot assessments, 20 were conducted with participants the case manager had not previously assessed. No A/SPs were conducted with individuals with mental health diagnoses who were unfamiliar with their case manager.

Familiarity with the case manager affected the length of time to complete the assessment substantially. On average, A/SPs took 38 minutes less for participants with whom the case manager was familiar compared to participants with whom the case manager was unfamiliar. The population most impacted by familiarity were children with IDD, who took 152 minutes more when the case manager was not familiar with them compared to those familiar with the participant. One possible contributing factor was that the case manager who consistently had shorter A/SP times for this population did not contribute data for the unfamiliar cohort. Adults with physical disabilities also had substantial variation at 76 more minutes when the case manager was not familiar with them.

A surprising finding was that case managers for children without IDD took 31 minutes less when they were unfamiliar with the participant. Because only one case manager conducted A/SPs with children without IDD they were familiar with, these findings are challenging to apply more broadly. Children without IDD experience an especially wide range of case complexities, and the children the case manager was familiar with may have been more complex and thus taken additional time to complete.

Exhibit 9: Time to Complete the Entire A/SP process by Population for Participants with whom the Case Manager was Familiar

Population	# of Case Managers	# of Participants	Minutes	Compared to Average	% Different
Overall Average	**20**	**102**	**266**	**0**	**0%**
	Participants with whom the Case Manager was familiar				
All Populations	20	82	258	-8	-3%
Older Adults	5	12	243	-23	-9%
Adults with Physical Disabilities	7	14	269	3	1%
All Older Adults/APD	9	26	257	-9	-3%
Mental Health	8	20	271	5	2%
Adults with IDD	6	15	305	39	15%
Children with IDD	4	12	170	-95	-36%
All individuals with IDD	9	27	245	-20	-8%
Children non-IDD	1	9	273	7	3%
All children	5	21	214	-51	-19%
	Participants with whom the Case Manager was unfamiliar				

Population	# of Case Managers	# of Participants	Minutes	Compared to Average	% Different
All Populations	9	20	296	31	12%
Older Adults	2	4	253	-13	-5%
Adults with Physical Disabilities	1	2	345	79	30%
All Adults/APD	2	6	283	18	7%
Mental Health	0	0			
Adults with IDD	1	2	344	78	29%
Children with IDD	4	8	322	56	21%
All individuals with IDD	5	10	326	61	23%
Children non-IDD	2	4	242	-24	-9%
All children	6	12	295	30	11%

TIME ACROSS EACH TIME STUDY ACTIVITY

Exhibits 10 and 11 present the average time for each A/SP activity.

Case manager familiarity with the participant impacted time for conducting File Review and LOC Screen the most (**Exhibits 10, 11**). Case managers who were not familiar with a participant may need more time to learn about the participant. With the exception of the Comprehensive Assessment, all other activities (e.g. Scheduling & Logistics, LOC Screen, File Review, Support Plan, Follow-up, and Other) had negligible overall differences when comparing participant familiarity.

Other takeaways from **Exhibits 10 and 11** include:

- Scheduling and Logistics had no overall differences with regards to familiarity, however case managers spent the most time with was adults with IDD with whom they were familiar. This may be because they are familiar with the participant's support team and challenges, and spend more time coordinating schedules and ensuring all appropriate measures for the A/SP were in place
- File Review took the longest for adults and children with IDD the case manager was unfamiliar with. Both populations took over twice the average overall time for File Review
- LOC Screen time was most heavily impacted by familiarity for the adults with physical disabilities, with 27 more minutes spent with participants the case manager was unfamiliar with compared to those they were familiar with. This represents a 96% increase from the overall average time
- Adults with IDD took the largest amount of time for the Comprehensive Assessment, regardless of familiarity. Familiarity did play a role within the population, with the

Assessment taking 21 minutes longer with participants the case manager was not familiar with

- Familiarity during the Comprehensive Assessment had the largest impact on children with IDD. Children the case manager was familiar with took 61 less minutes than children they were not familiar with
- The overall average for the Support Plan was relatively stable. Children with IDD were the population most heavily impacted by familiarity, with participants the case manager was familiar with taking 41 minutes less than those they were unfamiliar with
- There was little variation for Follow-up and Other. Only Follow-up with older adult participants with whom the case manager was unfamiliar took over 10 minutes

Exhibit 10: Average time to Complete the LOC Screen, Comprehensive Assessment, and Support Plan by Population and Case Manager Familiarity

	LOC Screen		Comprehensive Assessment		Support Plan	
	Minutes	Compared to Average	Minutes	Compared to Average	Minutes	Compared to Average
	All Participants					
All Populations	28	0	138	0	64	0
Older Adults	30	1	134	-4	53	-10
Adults with Physical Disabilities	33	5	147	10	71	7
All Older Adults/APD	31	3	141	3	62	-2
Mental Health	26	-2	135	-2	64	0
Adults with IDD	21	-7	163	25	77	13
Children with IDD	25	-3	109	-29	61	-2
All individuals with IDD	23	-5	134	-4	68	5
Children non-IDD	39	10	145	8	54	-10
All children	30	2	123	-14	58	-5
	Participants with whom the Case Manager was familiar					
All Populations	26	-2	135	-3	63	-1
Older Adults	28	-1	132	-6	58	-6
Adults with Physical Disabilities	30	2	144	7	69	5
All Adults/APD	29	1	139	1	64	0
Mental Health	26	-2	135	-2	64	0
Adults with IDD	21	-7	160	23	77	13
Children with IDD	17	-11	84	-53	45	-19
All individuals with IDD	19	-9	126	-11	63	-1
Children non-IDD	41	13	150	12	59	-4
All children	28	-1	112	-25	51	-13

	LOC Screen		Comprehensive Assessment		Support Plan	
	Minutes	Compared to Average	Minutes	Compared to Average	Minutes	Compared to Average
	Participants with whom the Case Manager was unfamiliar					
All Populations	36	8	148	11	67	3
Older Adults	35	7	141	3	39	-24
Adults with Physical Disabilities	57	29	168	30	88	24
All Adults/APD	42	14	150	12	55	-8
Mental Health						
Adults with IDD	25	-3	181	43	78	14
Children with IDD	36	8	146	8	86	22
All individuals with IDD	34	6	153	15	84	20
Children non-IDD	32	4	134	-3	41	-23
All children	35	7	142	4	71	7

Exhibit 11: Average time to Complete Scheduling & Logistics, File Review, Follow-up, and Other Activities by Population and Case Manager Familiarity

	Scheduling & Logistics		File Review		Follow-up		Other	
	Minutes	Compared to Average	Minutes	Compared to Average	Minutes	Compared to Average	Minutes	Compared to Average
	All Participants							
All Populations	13	0	20	0	2.3	0.0	0.6	0.0
Older Adults	14	0	12	-8	3.3	0.9	0.0	-0.6
Adults with Physical Disabilities	15	2	11	-10	0.9	-1.4	0.0	-0.6
All Older Adults/APD	14	1	11	-9	2.1	-0.2	0.0	-0.6
Mental Health	12	-1	28	8	5.8	3.4	0.0	-0.6
Adults with IDD	22	9	26	5	1.4	-1.0	0.0	-0.6

FINDINGS

	Scheduling & Logistics		File Review		Follow-up		Other	
	Minutes	Compared to Average	Minutes	Compared to Average	Minutes	Compared to Average	Minutes	Compared to Average
Children with IDD	8	-5	28	8	0.4	-2.0	0.0	-0.6
All individuals with IDD	14	1	27	7	0.8	-1.5	0.0	-0.6
Children non-IDD	9	-5	10	-10	1.8	-0.5	4.9	4.3
All children	8	-5	21	1	0.9	-1.4	1.9	1.3
	Participants with whom the Case Manager was familiar							
All Populations	13	0	18	-2	2.2	-0.2	0.5	-0.1
Older Adults	13	0	13	-7	0.0	-2.3	0.0	-0.6
Adults with Physical Disabilities	14	1	11	-9	1.1	-1.2	0.0	-0.6
All Older Adults/APD	13	0	12	-8	0.6	-1.7	0.0	-0.6
Mental Health	12	-1	28	8	5.8	3.4	0.0	-0.6
Adults with IDD	23	10	23	3	1.5	-0.8	0.0	-0.6
Children with IDD	7	-7	18	-2	0.0	-2.3	0.0	-0.6
All individuals with IDD	16	3	21	1	0.9	-1.5	0.0	-0.6
Children non-IDD	9	-4	5	-15	2.7	0.4	4.9	4.3
All children	8	-6	12	-8	1.1	-1.2	2.1	1.5
	Participants with whom the Case Manager was unfamiliar							
All Populations	13	0	29	9	3.0	0.6	1.0	0.4
Older Adults	16	3	9	-12	13.0	10.7	0.0	-0.6
Adults with Physical Disabilities	23	9	10	-10	0.0	-2.3	0.0	-0.6
All Older Adults/APD	18	5	9	-11	8.7	6.4	0.0	-0.6
Mental Health								
Adults with IDD	15	2	45	25	0.0	-2.3	0.0	-0.6
Children with IDD	10	-3	44	24	0.9	-1.4	0.0	-0.6
All individuals with IDD	11	-2	44	24	0.7	-1.6	0.0	-0.6
Children non-IDD	9	-4	20	0	0.0	-2.3	5.0	4.4
All children	10	-3	36	16	0.6	-1.7	1.7	1.0

FINDINGS

FOLLOWING-UP TIME OUTLIERS

Case managers who took a substantial amount of time to complete the LOC Screen (>60 minutes), Comprehensive Assessment (>3 hours), and/or Support Plan (>90 minutes) were contacted about why this occurred. Reasons included:

- Case manager was unfamiliar with the participant and needed to have in-depth conversation about all areas
- Medically complex individuals required additional time to ensure accuracy of the detailed Health information captured in the new assessment
- Explaining and completing the new items with individuals with cognitive impairments and IDD took additional time
- Discussion prompts not contained within the 100.2 brought up new topics people were eager to discuss with their case manager but would often result in lengthy, tangential discussions
- Challenges with the flow of the Support Plan

Limitations

The challenges with the automation, differences with conducting A/SPs by telephone or other electronic modality in response to COVID-19, and additional updates to the A/SP content and flow after the pilot resulted in several potential limitations when interpreting this data:

- The quality of the automated product likely impacted the time the A/SPs took, specifically the Support Plan. This included:
    - The inability to accurately track and report time directly in Aerial required case managers to track time outside of the system. This increased the chances for errors (e.g., rounding or inaccurate calculations) when translating this information into the Tracking Sheet.
    - The inability to pull detailed reports on item responses. HCBS Strategies investigated whether it would be possible to identify items that were skipped by the case manager to evaluate the completeness of the A/SP. Medecision was unable to provide a report that differentiated items that were chosen to be skipped by the participant versus those that were skipped because of the embedded skip logic.
    - Not having the final version of the A/SP in the system until April 20, 2020. The comparative data showed that these updates decreased the time for the A/SP by three minutes overall, however the data provided in this report combines both the A/SP versions used from April 6-April 19 and April 20 through the conclusion of the pilot.
    - Inappropriately requiring items in the Support Plan, several of which were related to skips and resulted in confusing, non-applicable conversations. For example, the item on who should be in charge of monitoring advanced directives was asked whether or not the participant had documented advanced directives.
    - The automation of the tables in the Support Plan required the assessor to open up a new field for each table row, and saving the row was only completed by clicking a "back" button. This automation was distinctly different and more challenging than the Comprehensive Assessment tables and frequently resulted in case managers having to enter the same information multiple times.
- Conducting assessments by telephone because of COVID-19 likely impacted the amount of time spent on the assessments.
    - Case managers surveyed during weekly meetings had mixed reports on how this impacted overall time. Some reported that the A/SPs were going faster because the entire support team, including providers, was often not all on the same call, leading to fewer responses to consider when scoring items; there was less distraction than being in the participant's home; and participants wanted to spend less time on the remote call. Others reported that the A/SPs were taking longer because participants

were lonely and wanted to talk more and assessors were less able to keep the conversation focused than when in-person.
    - Case managers were unable to use observation to inform their responses to items including functioning and home environment. This resulted in having to discuss questions that would have otherwise been answered by case manager observation.
- After the pilot the Department, HCBS Strategies, and DXC spent over 20 hours updating the A/SP content to reflect extensive feedback provided by participants, case managers, stakeholders, and Department staff. Changes that will likely have the most significant impact on the overall time include:
    - Having searchable medications and diagnoses tables. These sections were reported as being some of the most time consuming and moving these to a searchable format would likely expedite the response to these items substantially.
    - The Department is exploring moving a subset of items to the participant record. These include guardian information, home environment, medications, diagnoses, and communication preferences and needs. These items will still need to be completed, however may occur prior to the A/SP (e.g., Intake) and should not be factored into overall A/SP time.
    - Additions to the LOC Screen to reflect the updated nursing facility (NF) and hospital (H) level of care (LOC) criteria. The addition of these items, especially for children's targeting criteria, will likely increase the time it takes to complete the LOC Screen.
    - The changes largely focused on removing and/or simplifying items. This updated process will likely result in shorter assessments across all populations.

CONCLUSIONS

Conclusions

The Time Study pilot provides useful information to the Department as it evaluates whether and how to update case management rates to reflect the new A/SP process. This review should also consider that while the new A/SP process replaces the current ULTC 100.2 and Service Plan, it will also eliminate the need for many supplemental tools (e.g., IADL assessment, CES application, and the SIS assessment).

The Department should consider rates methodologies that:

- Reflect the time expectations for the new A/SP and allow for lower caseloads to ensure that case managers are able to continue to provide participants with quality support.
- Are distinct between initial and ongoing A/SPs. The breakout of the familiarity data shows that A/SPs conducted with participants the case manager has not previously worked with take substantially longer to complete.
- Are adapted to reflect population-specific time expectations. The data showed that, compared to the average, adults with IDD take 25 minutes more to complete the entire process. Considering population specific times within the rates may increase the time case managers are able to spend with participants to develop meaningful, complete, and accurate A/SPs.

The Department should also explore opportunities to collect additional data about how long the new process will take given the challenges this study encountered. Ideally, these data would be collected once automation that will be used for statewide implementation is finalized.