New York State Medicaid

Managed Long-Term Care

Final Report

Uniform Assessment System- New York Community Health Assessment and Functional Supplement Data Validation Audit

Traumatic Brain Injury (TBI) Program

2016-2017

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Section One: Executive Summary

IPRO, the external quality review organization for New York State's Medicaid managed care program, commenced validation of the Uniform Assessment System-New York Community Health Assessment (UAS-NY CHA) and Functional Supplement (FS) tools in August 2016. In 2011, the Medicaid Redesign Team recommended aligning eligibility criteria for long-term service support programs and using a single instrument for eligibility determination. The UAS-NY CHA is the instrument used in New York to determine nursing facility level of care (NFLOC) for long-term support service programs as they transition into Medicaid managed care. The UAS-NY CHA and FS has been in use for the Managed Long-Term Care (MLTC) members since 2013. The Traumatic Brain injury program will be transitioning into MLTC plans in the future. To validate that the instrument can be consistently applied with this population to determine NFLOC eligibility, IPRO conducted this validation project. Specifically, the scope of this validation project was to evaluate the consistency of assessment determinations using assessments which did not meet the minimum NFLOC score. Because this program will transition into MLTC in the future, evaluating the consistency with which the instrument can determine the NFLOC score is important. The TBI member assessments used for this validation were not used in eligibility determinations for those members; no members lost or had changes in benefits due to these assessments.

The UAS-NY CHA captures many items and included in this validation were primarily items included the Nursing Facility Level of Care (NFLOC) score, as well as some additional items. A total of forty-four (44) items comprise the scope of the validation, across nine (9) domains.

The eligible population for this project, the TBI program members, consisted of approximately 360 members, for whom a minimum NFLOC score for program eligibility was not evident from UAS-NY CHA scoring. From this group, an audit sample of 90 members across the nine Regional Resource Development Centers (RRDCs) of the TBI program was chosen, a 10-member sample per center. Twelve records were requested from each RRDC for over sampling purposes, to meet the required 10-member sample. A total of 96 records were reviewed.

The validation was performed on UAS-NY assessments conducted in 2015. The validation was accomplished through a review of service plans, Patient Review Instruments (PRIs), comments from the UAS-NY CHA and FS assessments, as well as through a review of home health and personal care agency documentation where applicable and available.

It should be noted that a significant number of elements contain a 3 day window timeframe, requiring that the behavior or activity had to have occurred within the 3 day period prior to and including the assessment date.

IPRO reviewers found evidence to support assessor findings, as evidenced by an agreement rate of 87.7% of all elements reviewed, inclusive of those elements with evidence found outside of the 3 day window timeframe. For the majority of elements where disagreement was found, IPRO assessed a higher level of acuity than was reported, representing 9.3% of all the elements reviewed.

NFLOC scores for the audit sample were re-calculated based upon IPRO's findings. Of the 96 records reviewed, the IPRO score matched the UAS-NY assessor score in 35 records (36.5%). Of the 61 records with non-matching scores, 53 records had an IPRO score greater (higher acuity) than the UAS-NY assessor score. Moreover, of the 61 records with non-matching scores, 26 records (42.6%) had an IPRO score greater than the NFLOC minimum score, versus zero records greater than the NFLOC minimal score based upon UAS-NY assessor findings, again suggesting higher acuity than originally found. This represents a statistically significant difference ($p<.001$). The mean, or average, NFLOC score based upon UAS-NY assessor findings was 2.06, versus a mean NFLOC score of 4.09 resulting from the IPRO review. Of the 26 records that moved to a score greater than the NFLOC minimal score from the IPRO review, the mean or average score was 8.69.

Finding	# records	Percentage of Sample
IPRO and UAS-NY assessor match	35	36.5%
IPRO score higher than UAS-NY assessor	53	55.2%
IPRO score lower than UAS NY assessor	8	8.3%

Principal documentation sources supporting IPRO responses were found in the member service plans in effect at the time of the UAS-NY assessments, as well as in the PRI assessments with timeframes often coinciding with the UAS-NY assessment dates. Additionally, IPRO reviewers had access to the initial service plans, which provided a considerable amount of the member's history, including the nature of the original injury or incident prompting the TBI condition.

In some of the records, IPRO reviewers also observed conditions which are not directly addressed by the NFLOC score, as follows:

a) A history of substance abuse (if not an active problem)

b) Challenges with IADL elements (e.g. meal preparation, paying bills, shopping, managing medications)

c) Mood disorder

d) Balance issues that were unrelated to the balance item on the UAS, which only addresses difficulty or inability to move self to standing position unassisted (e.g. vertigo, unsteadiness while walking).

Therefore, the additional review of supporting documentation (e.g. past medical history) to accompany the NFLOC calculation can positively contribute to the accuracy of the assessment outcome. The assessment of the TBI population may be further enhanced by the addition of a subsequent clinical assessment or evaluation which focuses on cognitive and functional deficits, including the independent activities of daily living (IADL) challenges outlined above, mood disorders, balance concerns, as well as a review of any history of substance abuse.

Section Two: Introduction

The Uniform Assessment System-New York (UAS-NY) Community Health Assessment (CHA) and the Functional Supplement (FS) have been utilized as principal clinical assessment tools across long-term care populations in New York State since 2013. The New York State Department of Health (NYSDOH) and IPRO have identified a need to validate the UAS-NY CHA and Functional supplement data, given the role of these instruments in establishing member eligibility for home and community based services, in care planning, in service utilization, and in payment. A validation of these data can assist in ensuring integrity for program functions.

IPRO, in conjunction with the NYSDOH, commenced validation of the UAS-NY clinical CHA and FS tools in August 2016. The two populations involved in the audit are the Traumatic Brain Injury Waiver (TBI) population and the Managed Long-Term Care (MLTC) population in New York State. The scope of the validation consists primarily of the items comprising the Nursing Facility Level of Care (NFLOC) score, as well as some additional items. A score of five (5) or greater from the NFLOC elements indicates qualification for nursing facility level of care.

A total of forty-four (44) items comprise the scope of the validation, across the following UAS-NY CHA and FS domains:

a) Cognition

b) Communication and Vision

c) Mood and Behavior

d) Functional Status

e) Continence

f) Disease Diagnosis

g) Nutritional Status

h) Health Conditions

i) Skin Condition

The validation of UAS-NY CHA and FS items was accomplished through a review of service plans, Patient Review Instruments (PRIs), comments from the UAS-NY CHA and FS assessments, as well as through a review of home health and personal care agency documentation where applicable and available.

The eligible population for the first audit group, the TBI program members, consisted of approximately 360 members, for whom a NFLOC score of 5 or greater was not evident from UAS-NY CHA scoring. From this group, an audit sample of 90 members across the nine Regional Resource Development Centers (RRDCs) was chosen, a 10 member sample per center. Twelve records were requested from each RRDC for over sampling purposes, to meet the required 10 member sample.

The validation was performed on UAS-NY assessments conducted in 2015. Validation findings for the TBI sample are included in this report.

Section Three: Audit Methodology

The breakdown of the elements validated is as follows:

UAS-NY Community Health Assessment

Section B-Cognition

- Cognitive Skills for Daily Decision Making
- Memory/Recall Ability

Section C-Communication and Vision

- Making Self Understood (Expressions)
- Vision (Ability to see in adequate light)
- Hearing

Section D-Mood and Behavior

- Behavioral Symptoms

Section F-Functional Status

- IADL Self Performance and Capacity
- ADL Performance
- ADL Self Performance
- Primary Mode of Locomotion Indoors

Section G-Continence

- Bladder Continence
- Bowel Continence

Section H-Disease Diagnosis

- Disease Diagnosis
  Neurological- Alzheimer's, other Dementia, Stroke/CVA
  Cardiac or Pulmonary-Congestive Heart Failure

Section J-Nutritional Status

- Mode of Nutritional Intake

UAS-NY Functional Supplement

Section F-Disease Diagnoses

- Disease Diagnoses (Hemiplegia, Multiple Sclerosis, Paraplegia, Parkinson's Disease, Quadriplegia)

Section G-Health Conditions

- Balance (Difficult or unable to move self to standing position unassisted)

Section I-Skin Condition

- Foot Problems

a) Sampling

A total of twelve records were requested from each TBI RRDC: ten for review, with an oversample of two, resulting in a total of 108 records. Of those records, twelve were excluded from the final sample. The exclusion criteria were as follows:

1. Records with insufficient documentation were excluded.
2. Records for which the IPRO Reviewer found insufficient evidence for a majority of items were excluded.

Overall, the final sample consisted of a total of 96 reviewed records, with at least ten records reviewed from each TBI RRDC. In an effort to capture the maximum amount of documentation available, oversampled records were included in the review for several RRDCs. A breakdown of the number of reviewed records per RRDC is presented below.

RRDC	# Records Reviewed
Adirondack	10
Buffalo	12
Capital Region	10
Long Island	10
Lower Hudson	11
New York City	10
Rochester	12
Southern Tier	11
Syracuse	10
Total Records Reviewed	96

b) Data Analysis Plan

A total of 4,224 elements were in the review scope (96 member records X 44 elements per record). A number of the elements contain a 3 day window timeframe; requiring that the behavior or activity had to have occurred within the 3 day period prior to and including the assessment date.

An overall analysis of the 44 individual elements was conducted. Rates for each element were calculated in several ways:

1. Rate of IPRO reviewer responses for which the reviewer agreed with the UAS-NY assessor's rating, excluding those items for which the IPRO reviewer responded with an Insufficient Evidence Rating, due to documentation existing outside of a 3 day window requirement.
2. Rate of IPRO reviewer responses for which the reviewer would have scored a higher level of acuity than the UAS-NY assessor's rating, excluding those items for which the IPRO reviewer responded with an Insufficient Evidence rating, due to documentation existing outside of a 3 day window requirement.
3. Rate of IPRO reviewer responses for which the reviewer would have scored a lower level of acuity than the UAS-NY assessor's rating, excluding those items for which the IPRO Reviewer responded with an Insufficient Evidence rating, due to documentation existing outside of a 3 day window requirement.
4. The overall rate of Insufficient Evidence due to the 3 day window requirement
5. The overall rate of responses with no evidence one way or another; therefore the IPRO reviewer could not make a determination.
6. Rate of IPRO reviewer responses for which the reviewer agreed with the UAS-NY assessor's rating, including those items for which the IPRO reviewer responded with an Insufficient Evidence rating, due to documentation existing outside of a 3 day window requirement.

7. Rate of IPRO Reviewer responses for which the reviewer would have scored a higher level of acuity than the UAS-NY assessor's rating, including those items for which the IPRO reviewer responded with an Insufficient Evidence rating, due to documentation existing outside of a 3 day window requirement.
8. Rate of IPRO Reviewer responses for which the reviewer would have scored a lower level of acuity than the UAS-NY assessor's rating, including those items for which the IPRO reviewer responded with an Insufficient Evidence rating, due to documentation existing outside of a 3 day window requirement.

Additionally, for each member, a breakdown of each item and whether the IPRO reviewer would have agreed, scored a higher level of acuity, or scored a lower level of acuity was completed.

Finally, for each item, the rates of each answer were calculated for the UAS-NY assessor ratings and for the IPRO reviewer ratings. These rates were then compared using a one-sample z-test to determine any statistically significant changes using a p- value <0.001.

c) Data Collection Methodology

In order to standardize the abstraction process, a medical record review tool and detailed instructions for each element, including definitions for reviewer ratings for each validated item, clear definitions for related elements, acceptable timeframes, and likely location of the pertinent documentation in the medical records and other documentation under review, were developed by IPRO based on the UAS-NY Community Health Assessment Reference Manual last updated April 2014. An Excel based tool was created, with training provided for IPRO nurse reviewers. Each nurse reviewer achieved greater than 95% accuracy on test charts prior to chart abstraction. Inter-rater reliability (IRR) testing was conducted to evaluate the performance of the nurse reviewers at the outset, and regular oversight was conducted throughout the review process through weekly over-reads of a minimum of 5% of reviewed charts. All nurse abstractor reviewers maintained a performance of at least 95% accuracy throughout the oversight process, and consistency was confirmed for all abstractions during the results analysis.

d) Abstraction Process

Using the standardized tool that was developed, nurse reviewers abstracted the information contained in member medical records and other documentation including: UAS-NY CHA or FS comments, PRI assessments, initial service plans, revised service plans, plans for protective oversight, and specialist consultations. Reviewers were instructed to agree with the UAS-NY assessor if they found no evidence to the contrary and if they found the UAS-NY CHA/FS assessment to be reasonable and supported by evidence in the medical record. UAS-NY assessors applied a specific scoring rubric to determine the level of assistance required for ADLs. The nurse reviewers were instructed to utilize the same rubric if there was sufficient documentation found in the medical record; if not, the nurse reviewers cited the documentation found which supported their reviewer rating.

Section Four: Validation Results

One component of the validation involves a comparison of the NFLOC score calculated on the UAS-NY CHA to the score listed in the member sample file submitted to IPRO by the NYSDOH. It should be noted that of all records reviewed, all scores matched.

Tables 1-8 contain the rates for each individual element. Table 1 provides a breakdown of UAS-NY CHA/FS responses that IPRO reviewers supported, comprising 65.3% of responses reviewed. Tables 2 and 3 provide breakdowns of UAS-NY CHA/FS responses that IPRO reviewers disagreed with, supporting either a higher or lower level of acuity (5.7% and 1.3%, respectively), excluding out of timeframe responses. Most of the disagreements support a higher acuity level and were found with the *Cognitive Skills for Daily Living, Short Term Memory*, and *Procedural Memory* elements. Also, there were a notable number of disagreements supporting a higher level of acuity with the *Making Self Understood*, *Verbal Abuse*, and *Resists Care* elements.

As stated previously, a significant number of elements contain a 3 day window timeframe, requiring that the behavior or activity had to have occurred within the 3 day period prior to and including the assessment date. For these elements, documentation was often found to support, agree, or disagree with the assessor but firm decisions were unable to be made as the documentation was dated outside of the 3 day window. It should be noted that for behavior elements with a 3 day window timeframe (*Wandering, Verbal Abuse, Physical Abuse, Socially Inappropriate Behavior, Inappropriate Public Sexual Behavior, Resists Care)*, the 3 day window requirement was not included and review decisions were made regardless of the documentation timeframe. Table 4 provides a breakdown of the 3 day window elements and a breakdown of review results, had the evidence been within the 3 day window (excluding the behavior elements).

Table 5 provides a breakdown of items unable to be validated. In these instances, records received were complete but did not contain enough documentation for review decisions to be made.

Tables 6-8 provide breakdowns of all responses that were reviewed (including responses outside of the 3 day timeframe) and whether responses were supported, or disagreed to a higher or lower acuity level.

The denominator for each item, as well as the total, excludes any record for which there was insufficient evidence or the reviewer could not give a rating ("Not Applicable" answers). The denominator for the total rate for Tables 1-4 is n=4,067, the denominator for Table 5 is n = 4,224, and the denominator for Tables 6-8 is n=4,058, as nine additional elements were excluded. This is because among the responses for which the IPRO reviewers found evidence outside of the 3 day window, there were nine additional items for which the IPRO reviewer would not have been able to assign a finding even if the evidence had been within the 3 day window. (See Table 4, NA column).

Overall, inclusive of the responses outside of the 3 day timeframe, IPRO reviewers found evidence to support the UAS-NY Assessors' ratings for 87.7% of the elements (Table 6). For approximately 9% of the elements, the IPRO reviewers would have scored a higher level of acuity, while the IPRO reviewers would have scored a lower level of acuity for about 3% of items (Tables 7 and 8, respectively).

Notably, the IPRO reviewers found evidence to support the UAS-NY Assessors' ratings in only about half (52.6%) of records for the *Cognitive Skills for Daily Decision Making* element (Table 6). Evidence to support UAS ratings in the *Short Term* and *Procedural Memory* elements were present in approximately 69% of records, a lower percentage as compared to most other elements. Similarly, the IPRO reviewers found evidence to support the UAS-NY Assessors' ratings for about two-thirds of records for the *Meal Preparation* and *Managing Medications* items. For the ADLs *Bathing, Personal Hygiene, Dressing Upper Body,* and *Dressing Lower Body*, the IPRO reviewers found supporting evidence for about 75% - 83% of records.

Significance testing was done using the z-test (p-value <0.001) to determine if there were any statistically significant differences between the rates of answers from the UAS-NY Assessors and the IPRO Reviewers. It should be noted that statistical testing was performed in a consistent manner, including responses outside of the 3 day timeframe. The comparison was based upon reviewer interpretation of items.

For the following fifteen elements, statistically significant differences were found between the rates:

- *Cognitive Skills for Daily Decision Making**
- *Procedural Memory**
- *Short-Term Memory**
- *Wandering**
- *Verbal Abuse**
- *Physical Abuse**
- *Resists Care**
- *Meal Preparation (Performance* and *Capacity)*
- *Bathing**
- *Personal Hygiene*
- *Dressing Upper Body**
- *Dressing Lower Body**
- *Walking*
- *Locomotion**
- *Balance*

**Note that items with an asterisk are included in the calculation of the NFLOC score.*

Tables 10-25 present rates for those elements with statistically significant differences between the two reviewers' findings (UAS-NY assessor and IPRO reviewer). Disagreement for cognitive items (e.g. *Cognitive Skills for Daily Decision Making, Procedural and Short Term Memory*) revealed a significantly greater percentage of IPRO review responses as minimally impaired versus modified independence (supporting a higher level of acuity), or with memory problems versus "no" memory problems, compared to the original UAS-NY assessors' responses. In like manner, disagreements with IADL and ADL elements (e.g. *Meal Preparation, Bathing, Personal Hygiene, Upper and Lower Body Dressing, Walking, Locomotion*) indicated IPRO reviewers finding a greater percentage of review responses requiring supervision and limited assistance than did the original UAS-NY assessors (supporting a higher level of acuity). It should be noted that for the *Cognitive Skills for Daily Decision Making* element, IPRO reviewers assigned a Minimally Impaired rating, in the absence of documentation within the record that the members' cognitive deficits were manifested during new situations only, which defines "Modified Independence". For the ADL and IADL elements addressing assistance levels, IPRO reviewers assigned a "Limited Assistance "rating in instances where the need for assistance was clearly indicated, but the level of assistance was not documented.

Table 1: Percent of Answers Supporting UAS-NY Assessment (Excludes Reviews Outside the 3 Day Window Timeframe)[1]

Indicator	Denom.	Numerator[2]	Rate
Cognitive Skills for Daily Living	95	50	52.6%
Short-Term Memory	94	65	69.1%
Procedural Memory	96	66	68.8%
Making Self Understood	95	74	77.9%
Vision	95	85	89.5%
Wandering[3]	95	92	96.8%
Verbal Abuse[3]	96	85	88.5%
Physical Abuse[3]	96	92	95.8%
Socially Inappropriate/Disruptive Behavior[3]	96	87	90.6%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	95	99.0%
Resists Care[3]	95	86	90.5%
Meal Preparation (Performance)[3]	92	22	23.9%
Meal Preparation (Capacity)[3]	92	23	25.0%
Managing Medications (Performance)[3]	94	26	27.7%
Managing Medications (Capacity)[3]	94	25	26.6%
Phone Use (Performance)[3]	88	13	14.8%
Phone Use (Capacity)[3]	88	13	14.8%
Stairs (Performance only)[3]	86	36	41.9%
Bathing[3]	92	33	35.9%
Personal Hygiene[3]	91	31	34.1%
Dressing Upper Body[3]	90	32	35.6%
Dressing Lower Body[3]	90	31	34.4%
Walking[3]	95	50	52.6%
Locomotion[3]	96	50	52.1%
Transfer Toilet[3]	96	53	55.2%
Toilet Use[3]	96	53	55.2%
Bed Mobility[3]	96	52	54.2%
Eating[3]	96	49	51.0%
Primary Mode of Locomotion Indoors[3]	96	62	64.6%
Bladder Continence[3]	95	47	49.5%
Bowel Continence[3]	95	47	49.5%
Alzheimer's	96	95	99.0%
Dementia other than Alzheimer's	96	93	96.9%
Stroke/CVA	96	91	94.8%
Congestive Heart Failure	96	96	100.0%
Mode of Nutritional Intake[3]	96	45	46.9%
Hemiplegia	96	92	95.8%
Multiple Sclerosis	96	96	100.0%
Paraplegia	96	96	100.0%
Parkinson's Disease	96	96	100.0%
Quadriplegia	96	96	100.0%
Balance[3]	96	41	42.7%
Foot Problem	12	9	75.0%
Hearing	92	86	93.5%
TOTAL	4,067	2,657	65.3%

[1] The denominator represents the number of records for which the indicator was answered. The denominator for the total rate is n=4,067. These denominators exclude responses of "Insufficient Evidence" and/or "Not Applicable".

[2] The numerator represents the number of records for which the IPRO reviewer agreed with the UAS-NY CHA/FS assessment based on evidence/documentation in the appropriate timeframe, and excludes items for which the reviewer selected insufficient evidence in the 3 day window timeframe and evidence exists outside the 3 day window for the IPRO finding.

[3] These indicators are assessed based on the last 3 days.

Table 2: Percent of Answers Supporting Higher Level of Acuity (Excludes Reviews Outside 3 Day Window Timeframe)[1]

Indicator	Denom.	Numerator[2]	Rate
Cognitive Skills for Daily Living	95	45	47.4%
Short-Term Memory	94	28	29.8%
Procedural Memory	96	29	30.2%
Making Self Understood	95	9	9.5%
Vision	95	5	5.3%
Wandering[3]	95	3	3.2%
Verbal Abuse[3]	96	10	10.4%
Physical Abuse[3]	96	4	4.2%
Socially Inappropriate/Disruptive Behavior[3]	96	7	7.3%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	1	1.0%
Resists Care[3]	95	9	9.5%
Meal Preparation (Performance)[3]	92	8	8.7%
Meal Preparation (Capacity)[3]	92	7	7.6%
Managing Medications (Performance)[3]	94	6	6.4%
Managing Medications (Capacity)[3]	94	5	5.3%
Phone Use (Performance)[3]	88	4	4.5%
Phone Use (Capacity)[3]	88	4	4.5%
Stairs (Performance only)[3]	86	0	0.0%
Bathing[3]	92	3	3.3%
Personal Hygiene[3]	91	4	4.4%
Dressing Upper Body[3]	90	2	2.2%
Dressing Lower Body[3]	90	3	3.3%
Walking[3]	95	1	1.1%
Locomotion[3]	96	1	1.0%
Transfer Toilet[3]	96	1	1.0%
Toilet Use[3]	96	1	1.0%
Bed Mobility[3]	96	1	1.0%
Eating[3]	96	2	2.1%
Primary Mode of Locomotion Indoors[3]	96	2	2.1%
Bladder Continence[3]	95	1	1.1%
Bowel Continence[3]	95	1	1.1%
Alzheimer's	96	0	0.0%
Dementia other than Alzheimer's	96	2	2.1%
Stroke/CVA	96	5	5.2%
Congestive Heart Failure	96	0	0.0%
Mode of Nutritional Intake[3]	96	1	1.0%
Hemiplegia	96	4	4.2%
Multiple Sclerosis	96	0	0.0%
Paraplegia	96	0	0.0%
Parkinson's Disease	96	0	0.0%
Quadriplegia	96	0	0.0%
Balance[3]	96	7	7.3%
Foot Problem	12	2	16.7%
Hearing	92	4	4.3%
TOTAL	4,067	232	5.7%

[1] The denominator represents the number of records for which the indicator was answered. The denominator for the total rate is n=4,067. These denominators exclude responses of "Insufficient Evidence" and/or "Not Applicable".

[2] The numerator represents the number of records for which the IPRO reviewer agreed with the UAS-NY CHA/FS assessment based on evidence/documentation in the appropriate timeframe, and excludes items for which the reviewer found insufficient evidence in the 3 day window timeframe and evidence exists outside the 3 day window for the IPRO finding.

[3] These indicators are assessed based on the last 3 days.

Table 3: Percent of Answers Supporting Lower Level of Acuity (Excludes Reviews Outside 3 Day Window Timeframe) [1]

Indicator	Denom.	Numerator[2]	Rate
Cognitive Skills for Daily Living	95	0	0.0%
Short-Term Memory	94	1	1.1%
Procedural Memory	96	1	1.0%
Making Self Understood	95	12	12.6%
Vision	95	5	5.3%
Wandering[3]	95	0	0.0%
Verbal Abuse[3]	96	1	1.0%
Physical Abuse[3]	96	0	0.0%
Socially Inappropriate/Disruptive Behavior[3]	96	2	2.1%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	0	0.0%
Resists Care[3]	95	0	0.0%
Meal Preparation (Performance)[3]	92	3	3.3%
Meal Preparation (Capacity)[3]	92	3	3.3%
Managing Medications (Performance)[3]	94	2	2.1%
Managing Medications (Capacity)[3]	94	4	4.3%
Phone Use (Performance)[3]	88	2	2.3%
Phone Use (Capacity)[3]	88	2	2.3%
Stairs (Performance only)[3]	86	3	3.5%
Bathing[3]	92	1	1.1%
Personal Hygiene[3]	91	0	0.0%
Dressing Upper Body[3]	90	0	0.0%
Dressing Lower Body[3]	90	0	0.0%
Walking[3]	95	1	1.1%
Locomotion[3]	96	1	1.0%
Transfer Toilet[3]	96	0	0.0%
Toilet Use[3]	96	0	0.0%
Bed Mobility[3]	96	0	0.0%
Eating[3]	96	1	1.0%
Primary Mode of Locomotion Indoors[3]	96	1	1.0%
Bladder Continence[3]	95	1	1.1%
Bowel Continence[3]	95	0	0.0%
Alzheimer's	96	1	1.0%
Dementia other than Alzheimer's	96	1	1.0%
Stroke/CVA	96	0	0.0%
Congestive Heart Failure	96	0	0.0%
Mode of Nutritional Intake[3]	96	0	0.0%
Hemiplegia	96	0	0.0%
Multiple Sclerosis	96	0	0.0%
Paraplegia	96	0	0.0%
Parkinson's Disease	96	0	0.0%
Quadriplegia	96	0	0.0%
Balance[3]	96	1	1.0%
Foot Problem	12	1	8.3%
Hearing	92	2	2.2%
TOTAL	4,067	53	1.3%

[1] The denominator represents the number of records for which the indicator was answered. The denominator for the total rate is n=4,067. These denominators exclude responses of "Insufficient Evidence" and/or "Not Applicable".

[2] The numerator represents the number of records for which the IPRO reviewer agreed with the UAS-NY assessment based on evidence/documentation in the appropriate timeframe, and excludes items for which the reviewer selected insufficient evidence in the 3 day window timeframe and evidence exists outside the 3 day window for the IPRO finding.

[3] These indicators are assessed based on the last 3 days.

Table 4: Percent of Items with Documentation Outside the 3 Day Window Timeframe[1]

Indicator[1]	Denom.	Num[2]	Rate[3]	Agree[4]	Higher[5]	Lower[6]	NA
Meal Preparation (Performance)	92	59	64.1%	37	13	8	1
Meal Preparation (Capacity)	92	59	64.1%	37	13	9	0
Managing Medications (Performance)	94	60	63.8%	36	10	11	3
Managing Medications (Capacity)	94	60	63.8%	37	12	11	0
Phone Use (Performance)	88	69	78.4%	65	2	2	0
Phone Use (Capacity)	88	69	78.4%	65	2	2	0
Stairs (Performance only)	86	47	54.7%	36	6	1	4
Bathing	92	55	59.8%	42	9	3	1
Personal Hygiene	91	56	61.5%	37	13	6	0
Dressing Upper Body	90	56	62.2%	43	11	2	0
Dressing Lower Body	90	56	62.2%	42	11	3	0
Walking	95	43	45.3%	34	9	0	0
Locomotion	96	44	45.8%	35	8	1	0
Transfer Toilet	96	42	43.8%	36	3	3	0
Toilet Use	96	42	43.8%	38	3	1	0
Bed Mobility	96	43	44.8%	39	3	1	0
Eating	96	44	45.8%	39	4	1	0
Primary Mode of Locomotion Indoors	96	31	32.3%	25	6	0	0
Bladder Continence	96	46	47.9%	43	0	3	0
Bowel Continence	96	47	49.0%	46	0	1	0
Mode of Nutritional Intake	96	50	52.1%	49	1	0	0
Balance	96	47	49.0%	41	6	0	0
TOTAL	4,067	1,125	27.7%	902	145	69	9

[1] Note that only the indicators within the 3 day timeframe are presented for this table. The denominator for the total rate is n=4067 (The denominator for the total number of items was used to calculate the rate).

[2] The numerator represents the number of records for which the IPRO reviewer responded with insufficient evidence in the 3 day window timeframe and evidence exists outside the 3 day window.

[3] The rates represent the percentage of the records for which the IPRO reviewer responded with insufficient evidence in the 3 day window timeframe and evidence exists outside the 3 day window.

[4] This represents the number of records for which the IPRO reviewer would have agreed with the UAS-NY assessment if the evidence had been within the 3 day window.

[5] This represents the number of records for which the IPRO reviewer would have given a higher level of acuity if the evidence had been within the 3 day window.

[6] This represents the number of records for which the IPRO reviewer would have given a lower level of acuity if the evidence had been within the 3 day window.

Table 5: Percent of Items with Insufficient Documentation[1]

Indicator	Denom.	Numerator[2]	Rate
Cognitive Skills for Daily Living	96	1	1.0%
Short-Term Memory	96	2	2.1%
Procedural Memory	96	0	0.0%
Making Self Understood	96	1	1.0%
Vision	96	1	1.0%
Wandering[3]	96	1	1.0%
Verbal Abuse[3]	96	0	0.0%
Physical Abuse[3]	96	0	0.0%
Socially Inappropriate/Disruptive Behavior[3]	96	0	0.0%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	0	0.0%
Resists Care[3]	96	1	1.0%
Meal Preparation (Performance)[3]	96	4	4.2%
Meal Preparation (Capacity)[3]	96	4	4.2%
Managing Medications (Performance)[3]	96	2	2.1%
Managing Medications (Capacity)[3]	96	2	2.1%
Phone Use (Performance)[3]	96	8	8.3%
Phone Use (Capacity)[3]	96	8	8.3%
Stairs (Performance only)[3]	96	3	3.1%
Bathing[3]	96	4	4.2%
Personal Hygiene[3]	96	5	5.2%
Dressing Upper Body[3]	96	6	6.3%
Dressing Lower Body[3]	96	6	6.3%
Walking[3]	96	0	0.0%
Locomotion[3]	96	0	0.0%
Transfer Toilet[3]	96	0	0.0%
Toilet Use[3]	96	0	0.0%
Bed Mobility[3]	96	0	0.0%
Eating[3]	96	0	0.0%
Primary Mode of Locomotion Indoors[3]	96	0	0.0%
Bladder Continence[3]	96	1	1.0%
Bowel Continence[3]	96	1	1.0%
Alzheimer's	96	0	0.0%
Dementia other than Alzheimer's	96	0	0.0%
Stroke/CVA	96	0	0.0%
Congestive Heart Failure	96	0	0.0%
Mode of Nutritional Intake[3]	96	0	0.0%
Hemiplegia	96	0	0.0%
Multiple Sclerosis	96	0	0.0%
Paraplegia	96	0	0.0%
Parkinson's Disease	96	0	0.0%
Quadriplegia	96	0	0.0%
Balance[3]	96	0	0.0%
Foot Problem	96	84	87.5%
Hearing	96	4	4.2%
TOTAL	4,224	149	3.5%

[1] The denominator represents the number of records for which the indicator was answered. For this table, the total number of items reviewed (n=4,224) was used for the denominator for the total rate.

[2] The numerator represents the number of records for which the IPRO reviewer could not evaluate the UAS assessment because there was insufficient evidence/documentation within and outside the timeframe.

[3] These indicators are assessed based on the last 3 days.

Table 6: Percent of Answers Supporting UAS-NY Assessment (All Reviews Including Reviews Outside Timeframe) [1]

Indicator	Denom.	Numerator	Rate
Cognitive Skills for Daily Living	95	50	52.6%
Short-Term Memory	94	65	69.1%
Procedural Memory	96	66	68.8%
Making Self Understood	95	74	77.9%
Vision	95	85	89.5%
Wandering[3]	95	92	96.8%
Verbal Abuse[3]	96	85	88.5%
Physical Abuse[3]	96	92	95.8%
Socially Inappropriate/Disruptive Behavior[3]	96	87	90.6%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	95	99.0%
Resists Care[3]	95	86	90.5%
Meal Preparation (Performance)[3]	91	59	64.8%
Meal Preparation (Capacity)[3]	92	60	65.2%
Managing Medications (Performance)[3]	91	62	68.1%
Managing Medications (Capacity)[3]	94	62	66.0%
Phone Use (Performance)[3]	88	78	88.6%
Phone Use (Capacity)[3]	88	78	88.6%
Stairs (Performance only)[3]	82	72	87.8%
Bathing[3]	91	75	82.4%
Personal Hygiene[3]	91	68	74.7%
Dressing Upper Body[3]	90	75	83.3%
Dressing Lower Body[3]	90	73	81.1%
Walking[3]	95	84	88.4%
Locomotion[3]	96	85	88.5%
Transfer Toilet[3]	96	89	92.7%
Toilet Use[3]	96	91	94.8%
Bed Mobility[3]	96	91	94.8%
Eating[3]	96	88	91.7%
Primary Mode of Locomotion Indoors[3]	96	87	90.6%
Bladder Continence[3]	95	90	94.7%
Bowel Continence[3]	95	91	95.8%
Alzheimer's	96	95	99.0%
Dementia other than Alzheimer's	96	93	96.9%
Stroke/CVA	96	91	94.8%
Congestive Heart Failure	96	96	100.0%
Mode of Nutritional Intake[3]	96	95	99.0%
Hemiplegia	96	92	95.8%
Multiple Sclerosis	96	96	100.0%
Paraplegia	96	96	100.0%
Parkinson's Disease	96	96	100.0%
Quadriplegia	96	96	100.0%
Balance[3]	96	82	85.4%
Foot Problem	12	9	75.0%
Hearing	92	86	93.5%
TOTAL	4,058	3,558	87.7%

[1] The denominator represents the number of records for which the indicator was answered. These denominators exclude responses of "Insufficient Evidence" and/or "Not Applicable".

[2] The numerator represents the number of records for which the IPRO reviewer agreed with the UAS-NY CHA/FS assessment based on evidence/documentation in the timeframe AND the number of records for which the IPRO reviewer would have agreed had the evidence been within the 3 day window.

[3] These indicators are assessed based on the last 3 days.

Table 7: Percent of Answers Supporting Higher Level of Acuity (All Reviews Including Reviews Outside Timeframe) [1]

Indicator	Denom.	Numerator[2]	Rate
Cognitive Skills for Daily Living	95	45	47.4%
Short-Term Memory	94	28	29.8%
Procedural Memory	96	29	30.2%
Making Self Understood	95	9	9.5%
Vision	95	5	5.3%
Wandering[3]	95	3	3.2%
Verbal Abuse[3]	96	10	10.4%
Physical Abuse[3]	96	4	4.2%
Socially Inappropriate/Disruptive Behavior[3]	96	7	7.3%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	1	1.0%
Resists Care[3]	95	9	9.5%
Meal Preparation (Performance)[3]	91	21	23.1%
Meal Preparation (Capacity)[3]	92	20	21.7%
Managing Medications (Performance)[3]	91	16	17.6%
Managing Medications (Capacity)[3]	94	17	18.1%
Phone Use (Performance)[3]	88	6	6.8%
Phone Use (Capacity)[3]	88	6	6.8%
Stairs (Performance only)[3]	82	6	7.3%
Bathing[3]	91	12	13.2%
Personal Hygiene[3]	91	17	18.7%
Dressing Upper Body[3]	90	13	14.4%
Dressing Lower Body[3]	90	14	15.6%
Walking[3]	95	10	10.5%
Locomotion[3]	96	9	9.4%
Transfer Toilet[3]	96	4	4.2%
Toilet Use[3]	96	4	4.2%
Bed Mobility[3]	96	4	4.2%
Eating[3]	96	6	6.3%
Primary Mode of Locomotion Indoors[3]	96	8	8.3%
Bladder Continence[3]	95	1	1.1%
Bowel Continence[3]	95	1	1.1%
Alzheimer's	96	0	0.0%
Dementia other than Alzheimer's	96	2	2.1%
Stroke/CVA	96	5	5.2%
Congestive Heart Failure	96	0	0.0%
Mode of Nutritional Intake[3]	96	2	2.1%
Hemiplegia	96	4	4.2%
Multiple Sclerosis	96	0	0.0%
Paraplegia	96	0	0.0%
Parkinson's Disease	96	0	0.0%
Quadriplegia	96	0	0.0%
Balance[3]	96	13	13.5%
Foot Problem	12	2	16.7%
Hearing	92	4	4.3%
TOTAL	4,058	377	9.3%

[1] The denominator represents the number of records for which the indicator was answered. These denominators exclude responses of "Insufficient Evidence" and/or "Not Applicable".

[2] The numerator represents the number of records for which the IPRO reviewer found a higher level of acuity than the UAS-NY CHA FS assessment based on evidence/documentation within the timeframe AND the number of records for which the IPRO reviewer would have given a higher acuity rating had the evidence been within the 3 day window.

[3] These indicators are assessed based on the last 3 days.

Table 8: Percent of Answers Supporting Lower Level of Acuity (All Reviews Including Reviews Outside Timeframe)

Indicator	Denom.	Numerator[2]	Rate
Cognitive Skills for Daily Living	95	0	0.0%
Short-Term Memory	94	1	1.1%
Procedural Memory	96	1	1.0%
Making Self Understood	95	12	12.6%
Vision	95	5	5.3%
Wandering[3]	95	0	0.0%
Verbal Abuse[3]	96	1	1.0%
Physical Abuse[3]	96	0	0.0%
Socially Inappropriate/Disruptive Behavior[3]	96	2	2.1%
Inappropriate Public Sexual Behavior/Disrobing[3]	96	0	0.0%
Resists Care[3]	95	0	0.0%
Meal Preparation (Performance)[3]	91	11	12.1%
Meal Preparation (Capacity)[3]	92	12	13.0%
Managing Medications (Performance)[3]	91	13	14.3%
Managing Medications (Capacity)[3]	94	15	16.0%
Phone Use (Performance)[3]	88	4	4.5%
Phone Use (Capacity)[3]	88	4	4.5%
Stairs (Performance only)[3]	82	4	4.9%
Bathing[3]	91	4	4.4%
Personal Hygiene[3]	91	6	6.6%
Dressing Upper Body[3]	90	2	2.2%
Dressing Lower Body[3]	90	3	3.3%
Walking[3]	95	1	1.1%
Locomotion[3]	96	2	2.1%
Transfer Toilet[3]	96	3	3.1%
Toilet Use[3]	96	1	1.0%
Bed Mobility[3]	96	1	1.0%
Eating[3]	96	1	1.0%
Primary Mode of Locomotion Indoors[3]	96	1	1.0%
Bladder Continence[3]	95	4	4.2%
Bowel Continence[3]	95	1	1.1%
Alzheimer's	96	1	1.0%
Dementia other than Alzheimer's	96	1	1.0%
Stroke/CVA	96	0	0.0%
Congestive Heart Failure	96	0	0.0%
Mode of Nutritional Intake[3]	96	0	0.0%
Hemiplegia	96	0	0.0%
Multiple Sclerosis	96	0	0.0%
Paraplegia	96	0	0.0%
Parkinson's Disease	96	0	0.0%
Quadriplegia	96	0	0.0%
Balance[3]	96	1	1.0%
Foot Problem	12	1	8.3%
Hearing	92	2	2.2%
TOTAL	4,058	121	3.0%

[1] The denominator represents the number of records for which the indicator was answered. These denominators exclude responses of "Insufficient Evidence" and/or "Not Applicable".

[2] The numerator represents the number of records for which the IPRO reviewer found a lower level of acuity than the UAS-NY CHA/FS assessment based on evidence/documentation within the timeframe AND the number of records for which the IPRO reviewer would have given a lower acuity rating had the evidence been within the 3 day window.

[3] These indicators are assessed based on the last 3 days.

Table 9: Summary of Review Findings By Category[1]

	Numerator	Rate
Support UAS Assessor Rating (Excludes Reviews Outside the 3 Day Window Timeframe	2,657	65.3%
Higher Level of Acuity (Excludes Reviews Outside the 3 Day Window Timeframe	232	5.7%
Lower Level of Acuity (Excludes Reviews Outside the 3 Day Window Timeframe)	53	1.3%
Evidence outside 3-Day Window (3 day window responses)	1,125	27.7%
Total Elements Reviewed	4,067	
No Evidence (10-2)[2]	149	
Not Applicable	8	
Total Elements Available for Review	4,224	

[1] The denominator for all indicators is n=4,067, for total number of items reviewed.

[2] The "10-2" response represents an IPRO Reviewer Rating of "10 = Insufficient Evidence" and an IPRO Finding of "2 = No evidence one way or another therefore the evidence is insufficient". Reviewers gave this response on items for which they could not locate evidence anywhere in the members' records to either support or disagree with the UAS Assessors' ratings.

Tables 10-25 present the rates for each response for each of the items where statistically significant differences were found.

Table 10: Cognitive Skills for Daily Decision Making

	UAS-NY	IPRO
Independent	13.5%	3.2%
Modified Independence	50.0%	14.7%
Minimally Impaired	31.3%	71.6%
Moderately Impaired	4.2%	9.5%
Severely Impaired	1.0%	1.1%

Table 11: Procedural Memory

	UAS-NY	IPRO
Yes, memory OK	49.0%	19.8%
Memory problem	51.0%	80.2%

Table 12: Short-Term Memory

	UAS-NY	IPRO
Yes, memory OK	33.3%	4.3%
Memory problem	66.7%	95.7%

Table 13: Wandering

	UAS-NY	IPRO
Not present	100.0%	96.8%
Present, not in last 3 days	0.0%	3.2%
Exhibited in 1-2 of last 3 days	0.0%	0.0%
Exhibited daily in last 3 days	0.0%	0.0%

Table 14: Verbal Abuse

	UAS-NY	IPRO
Not present	91.7%	83.3%
Present, not in last 3 days	5.2%	14.6%
Exhibited in 1-2 of last 3 days	3.1%	2.1%
Exhibited daily in last 3 days	0.0%	0.0%

Table 15: Physical Abuse

	UAS-NY	IPRO
Not present	100.0%	95.8%
Present, not in last 3 days	0.0%	4.2%
Exhibited in 1-2 of last 3 days	0.0%	0.0%
Exhibited daily in last 3 days	0.0%	0.0%

Table 16: Resists Care

	UAS-NY	IPRO
Not present	96.9%	88.4%
Present, not in last 3 days	2.1%	7.4%
Exhibited in 1-2 of last 3 days	0.0%	0.0%
Exhibited daily in last 3 days	1.0%	4.2%

Table 17: Meal Preparation (Performance)

	UAS-NY	IPRO
Independent	49.0%	37.0%
Setup Help Only	1.0%	0.0%
Supervision	9.4%	16.3%
Limited Assistance	12.5%	23.9%
Extensive Assistance	13.5%	10.9%
Maximal Assistance	11.5%	12.0%
Total Dependence	2.1%	0.0%
Did Not Occur	1.0%	0.0%

Table 18: Meal Preparation (Capacity)

	UAS-NY	IPRO
Independent	45.8%	35.9%
Setup Help Only	2.1%	0.0%
Supervision	11.5%	18.5%
Limited Assistance	14.6%	25.0%
Extensive Assistance	14.6%	12.0%
Maximal Assistance	9.4%	8.7%
Total Dependence	2.1%	0.0%
Did Not Occur	0.0%	0.0%

Table 19: Bathing

	UAS-NY	IPRO
Independent	81.3%	74.7%
Setup Help Only	9.4%	4.4%
Supervision	5.2%	16.5%
Limited Assistance	3.1%	4.4%
Extensive Assistance	0.0%	0.0%
Maximal Assistance	0.0%	0.0%
Total Dependence	0.0%	0.0%
Did Not Occur	1.0%	0.0%

Table 20: Personal Hygiene

	UAS-NY	IPRO
Independent	88.5%	76.9%
Setup Help Only	7.3%	2.2%
Supervision	3.1%	16.5%
Limited Assistance	1.0%	4.4%
Extensive Assistance	0.0%	0.0%
Maximal Assistance	0.0%	0.0%
Total Dependence	0.0%	0.0%
Did Not Occur	0.0%	0.0%

Table 21: Dressing Upper Body

	UAS-NY	IPRO
Independent	96.9%	84.4%
Setup Help Only	2.1%	1.1%
Supervision	0.0%	11.1%
Limited Assistance	1.0%	3.3%
Extensive Assistance	0.0%	0.0%
Maximal Assistance	0.0%	0.0%
Total Dependence	0.0%	0.0%
Did Not Occur	0.0%	0.0%

Table 22: Dressing Lower Body

	UAS-NY	IPRO
Independent	96.9%	84.4%
Setup Help Only	3.1%	1.1%
Supervision	0.0%	11.1%
Limited Assistance	0.0%	3.3%
Extensive Assistance	0.0%	0.0%
Maximal Assistance	0.0%	0.0%
Total Dependence	0.0%	0.0%
Did Not Occur	0.0%	0.0%

Table 23: Walking

	UAS-NY	IPRO
Independent	91.7%	82.3%
Setup Help Only	5.2%	3.1%
Supervision	1.0%	6.3%
Limited Assistance	0.0%	5.2%
Extensive Assistance	2.1%	3.1%
Maximal Assistance	0.0%	0.0%
Total Dependence	0.0%	0.0%
Did Not Occur	0.0%	0.0%

Table 24: Locomotion

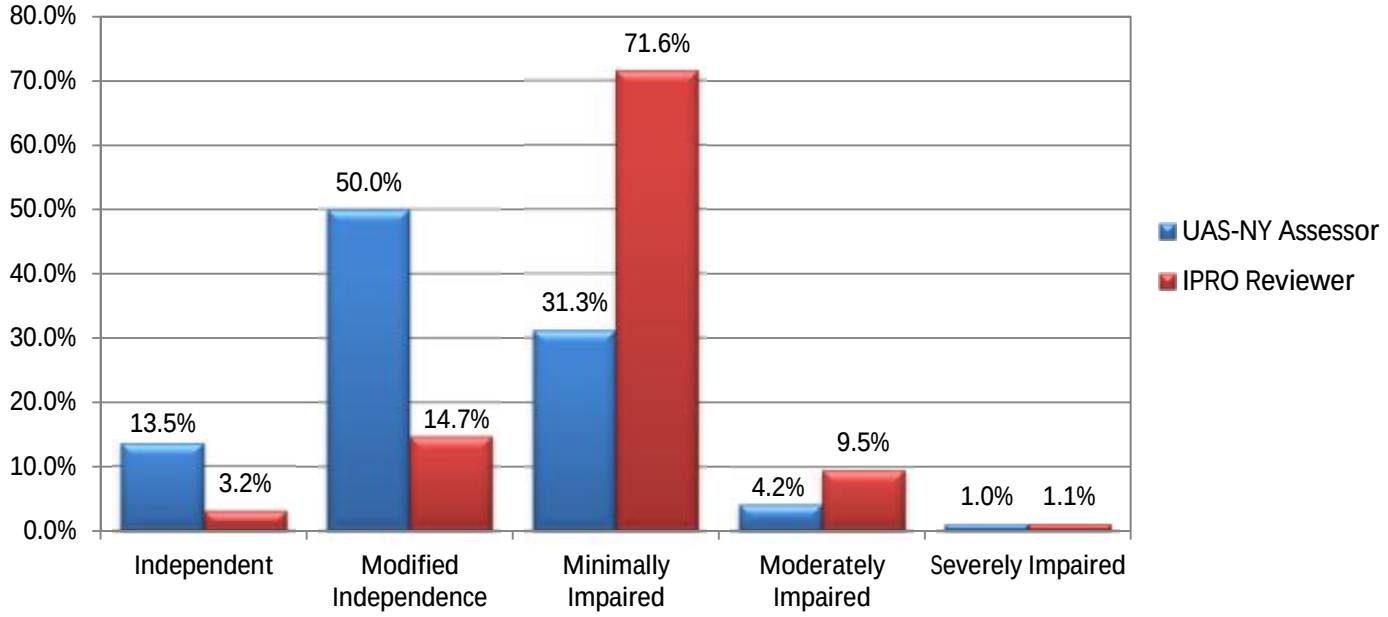
	UAS-NY	IPRO
Independent	93.8%	87.5%
Setup Help Only	5.2%	2.1%
Supervision	1.0%	6.3%
Limited Assistance	0.0%	4.2%
Extensive Assistance	0.0%	0.0%
Maximal Assistance	0.0%	0.0%
Total Dependence	0.0%	0.0%
Did Not Occur	0.0%	0.0%

Table 25: Balance

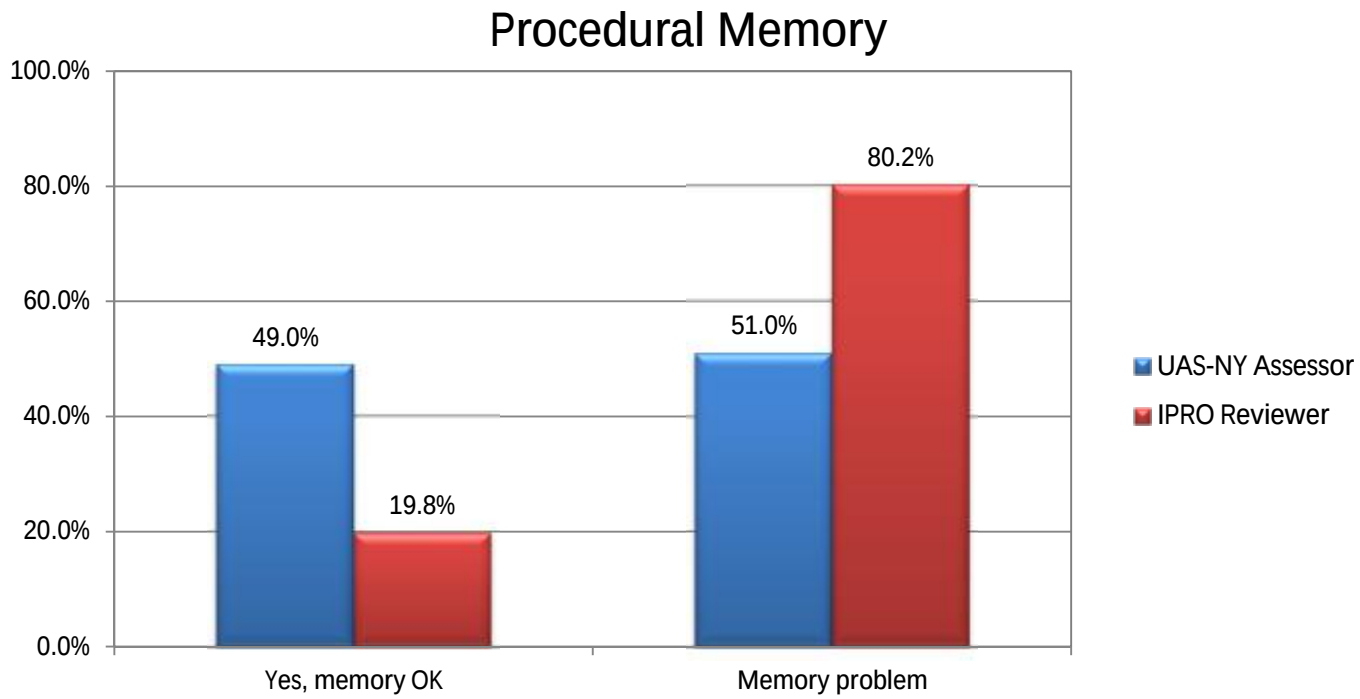
	UAS-NY	IPRO
Not present	96.9%	83.3%
Present, but not in last 3 days	2.1%	5.2%
Exhibited in 1 of last 3 days	0.0%	0.0%
Exhibited in 2 of last 3 days	0.0%	0.0%
Exhibited daily in last 3 days	1.0%	11.5%

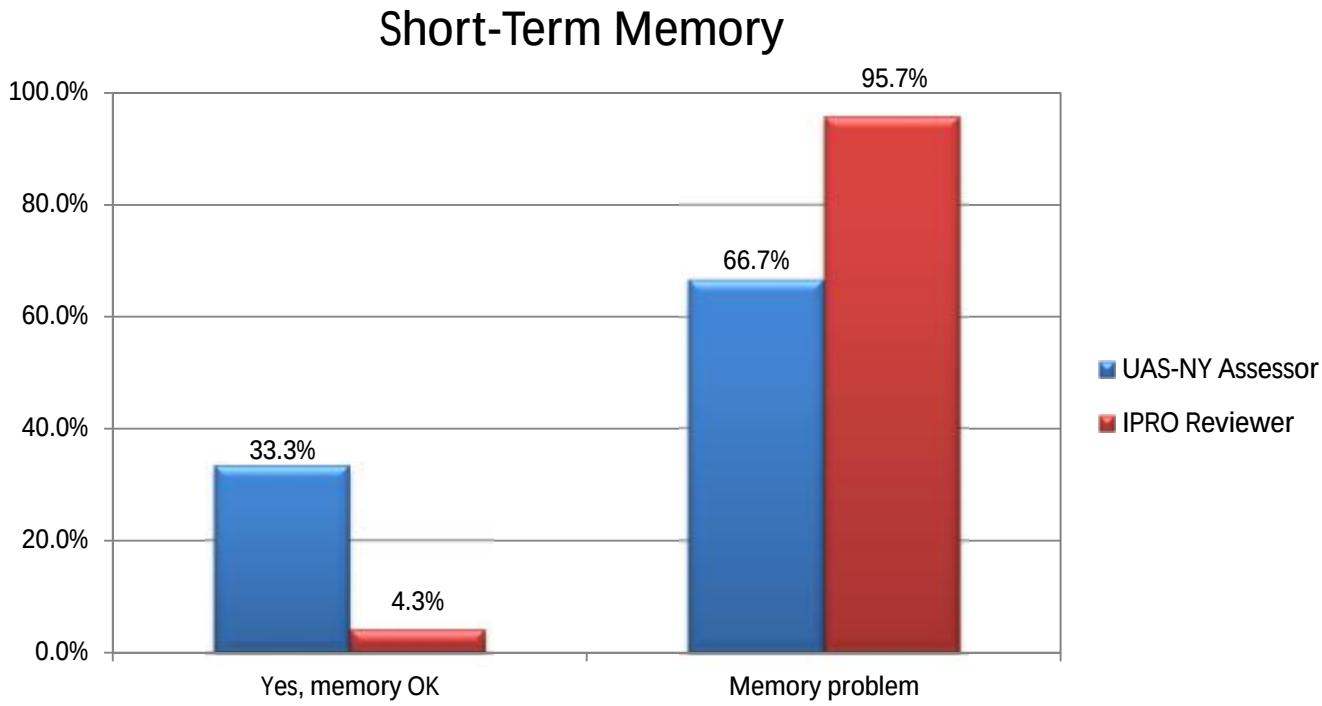
The following bar graphs and pie charts graphically depict the information displayed in Tables 10-25.

Cognitive Skills for Daily Decision Making[1]

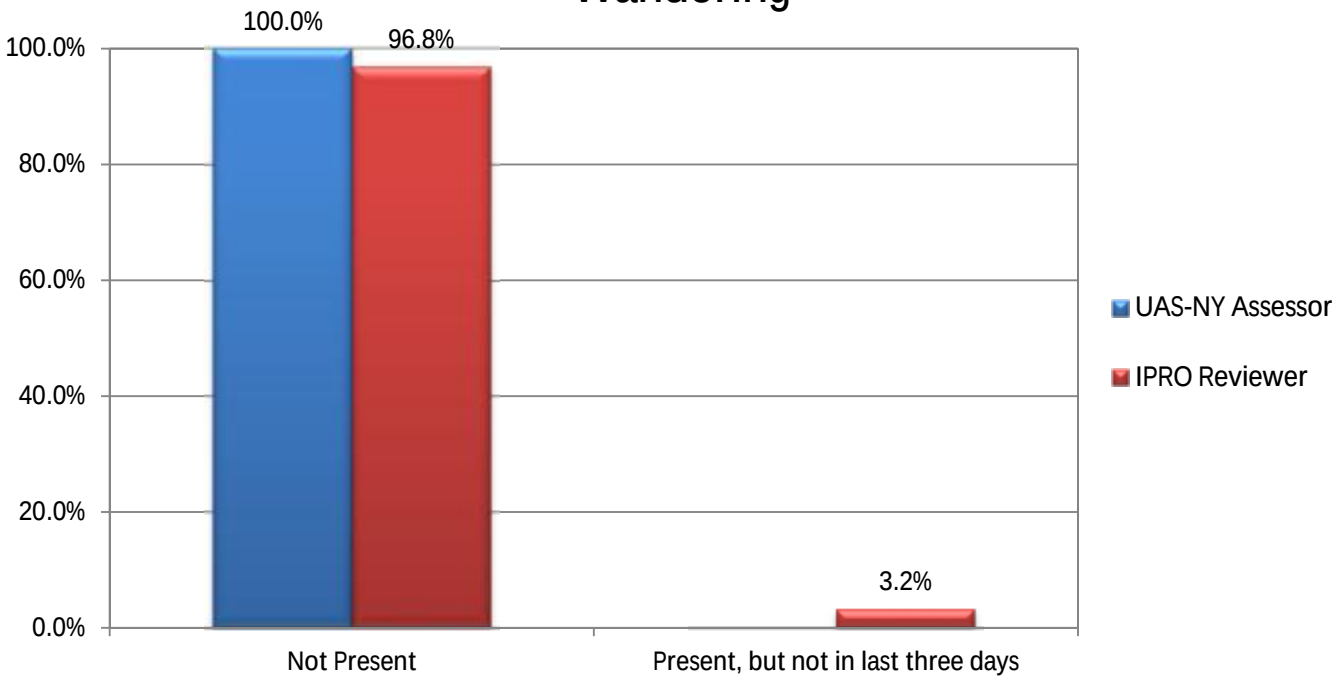


[1] For this item, the IPRO reviewers were instructed to select a rating of "Minimally Impaired" if they could not find documentation within the record that the members' cognitive deficits were manifested during new and stressful situations only, which defines "Modified Independence".

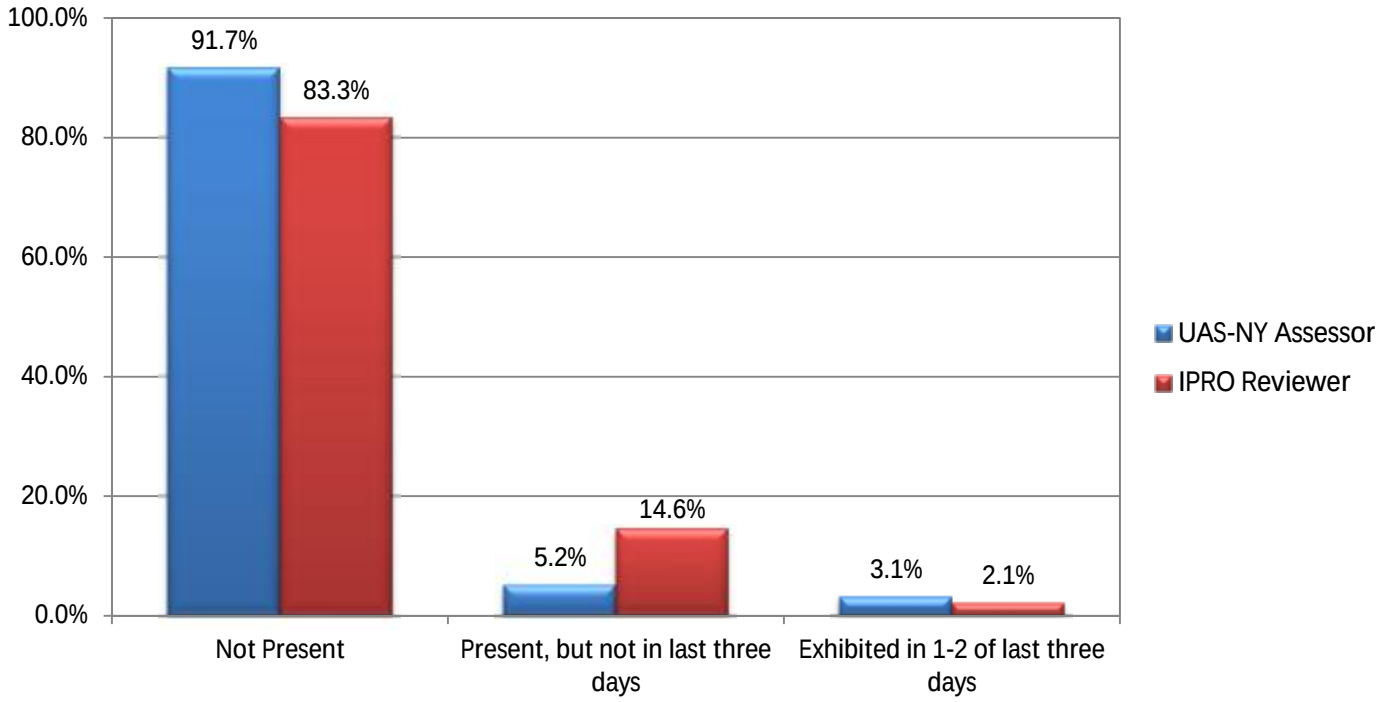

Procedural Memory
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
49.0%
19.8%
51.0%
80.2%
Yes, memory OK
Memory problem
UAS-NY Assessor
IPRO Reviewer


Short-Term Memory
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
33.3%
4.3%
66.7%
95.7%
Yes, memory OK
Memory problem
UAS-NY Assessor
IPRO Reviewer

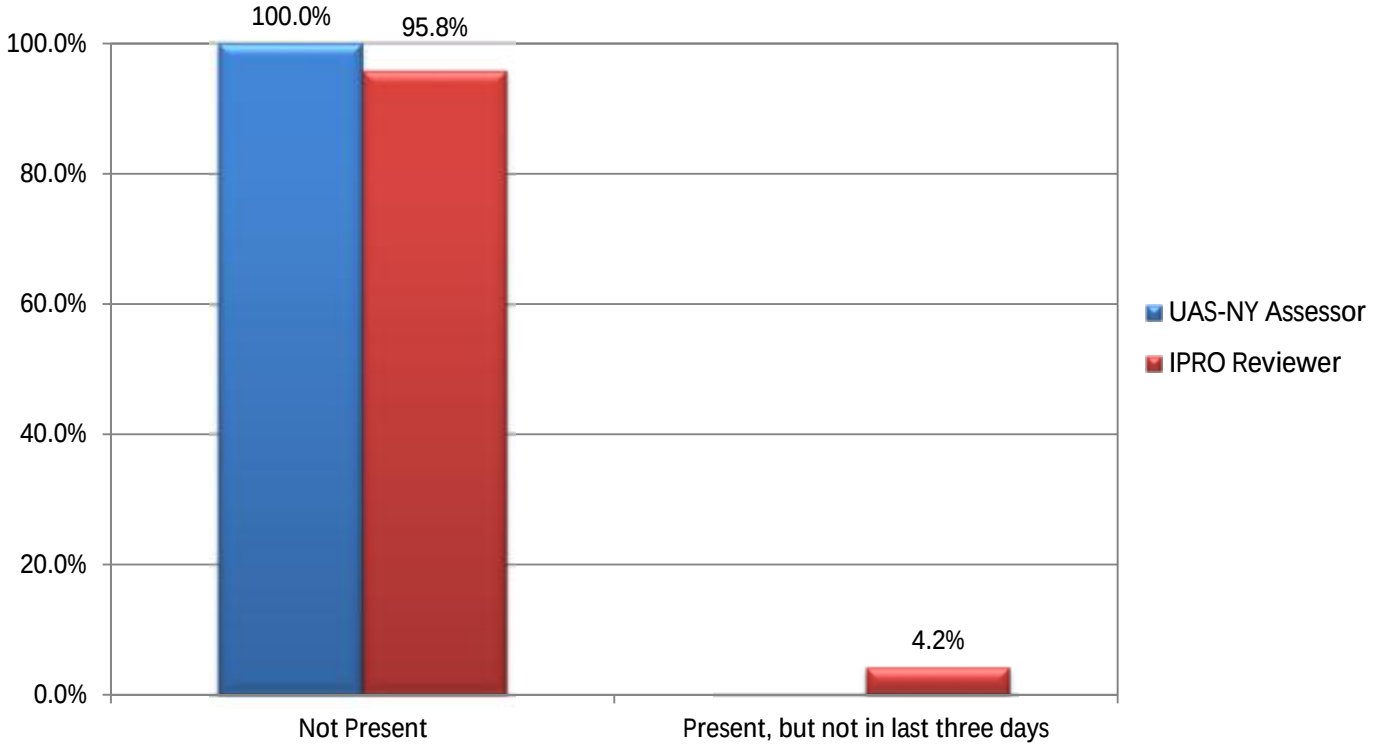
Wandering



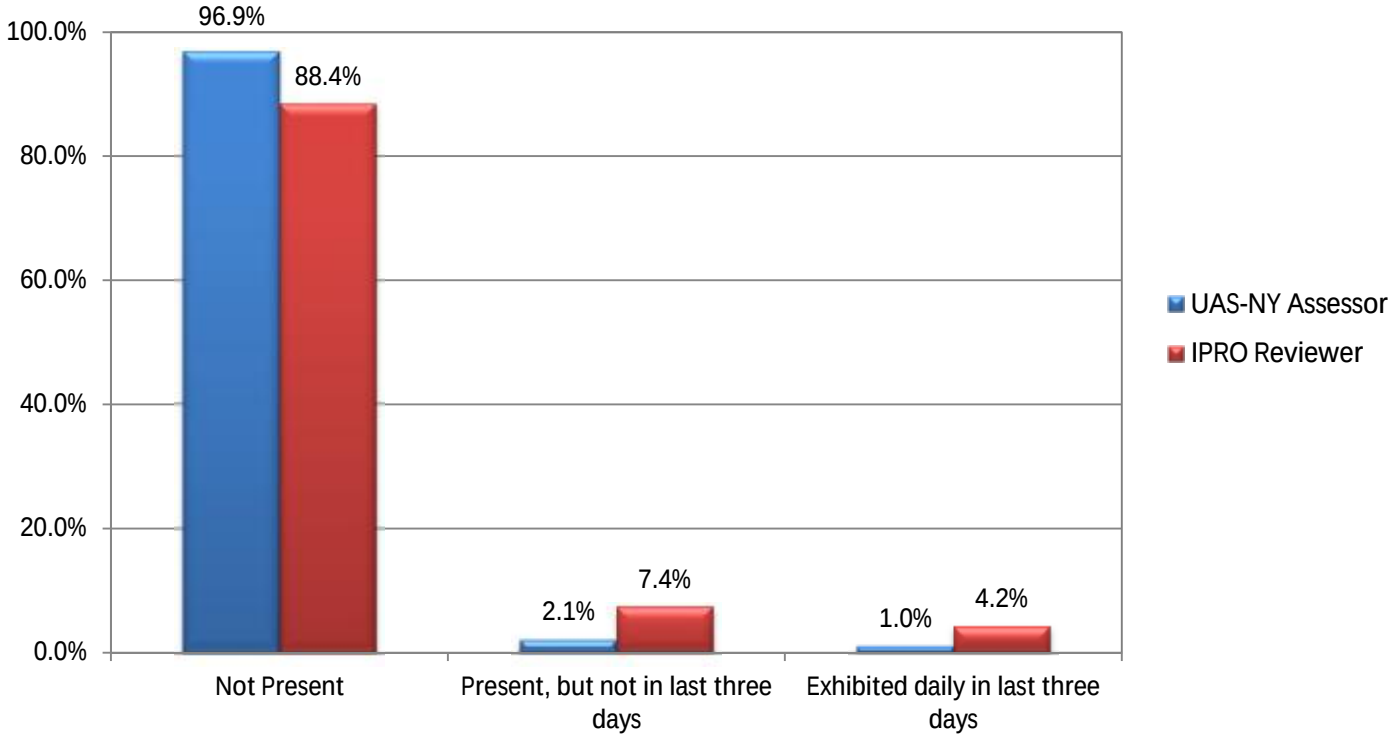
Verbal Abuse



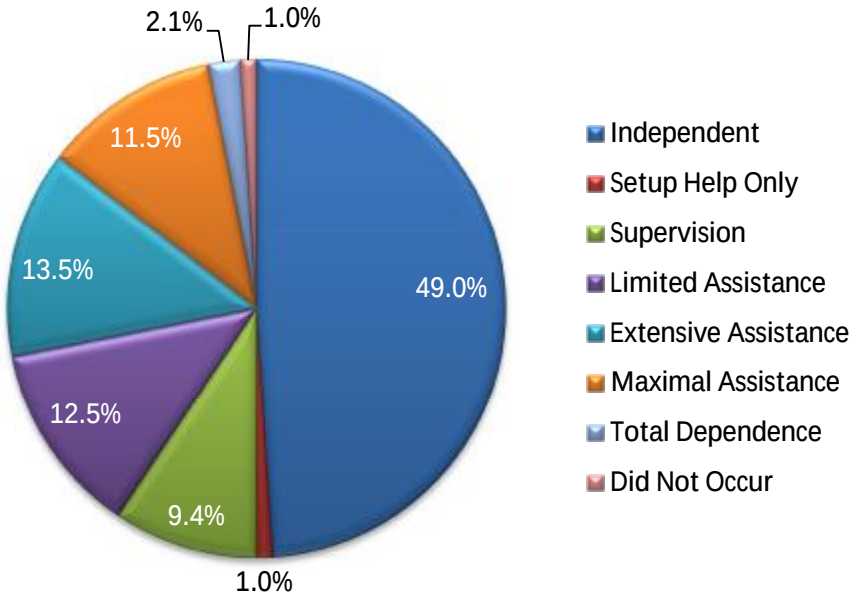
Physical Abuse



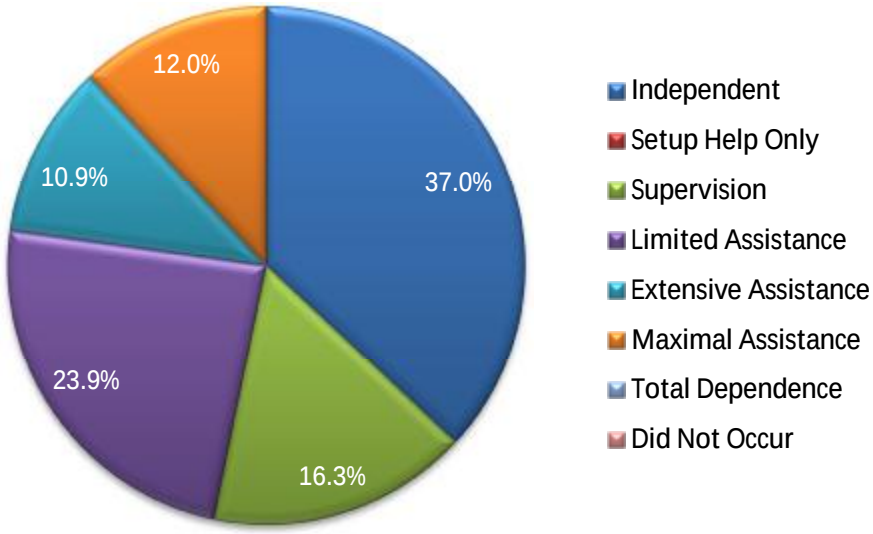
Resists Care



UAS-NY Assessor-Meal Preparation (Performance)

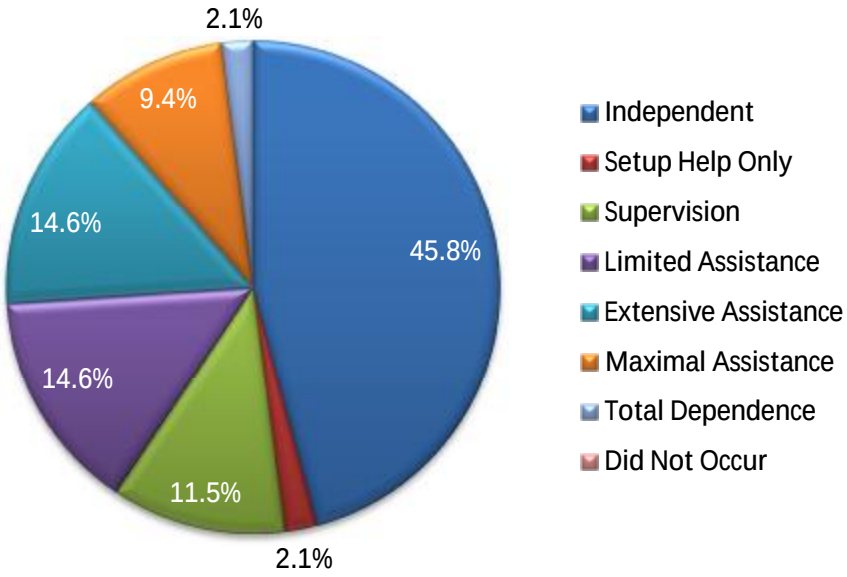


IPRO Reviewer - Meal Preparation (Performance)[1]

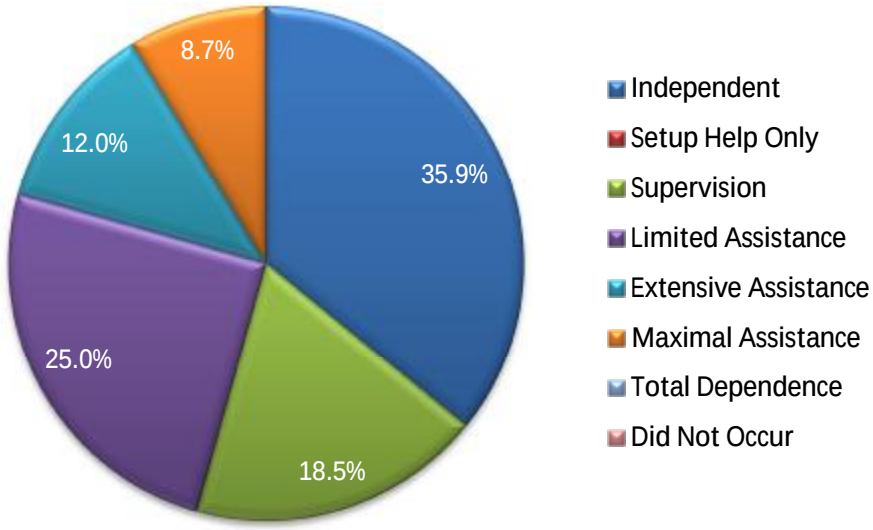


[1] For Meal Preparation—Performance, the IPRO Reviewers did not find evidence for "Setup Help Only", "Total Dependence", or "Did Not Occur" for any of the members in the sample.

UAS-NY Assessor - Meal Preparation (Capacity)

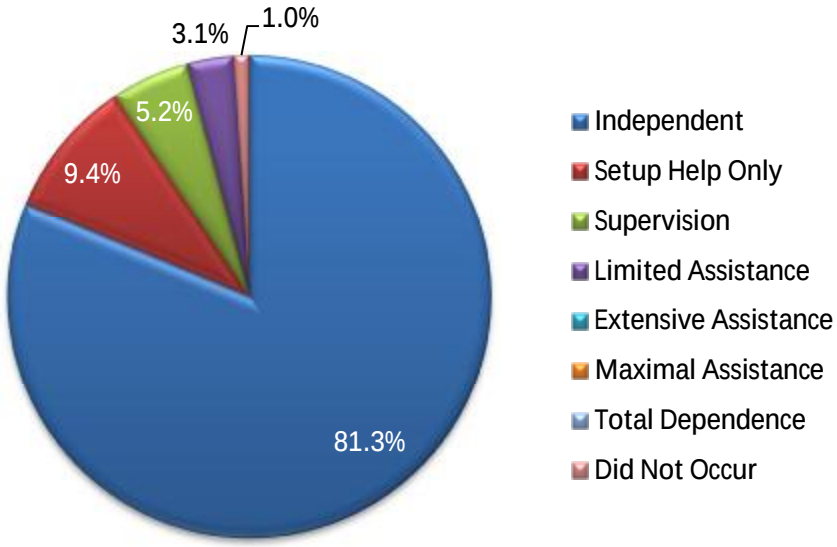


IPRO Reviewer - Meal Preparation (Capacity)[1]

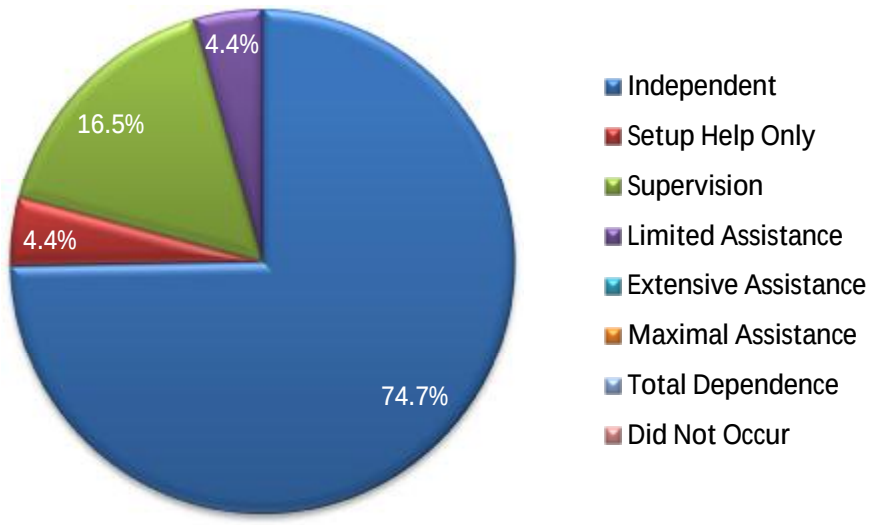


[1] For Meal Preparation—Capacity, the IPRO Reviewers did not find evidence for "Setup Help Only", "Total Dependence", or "Did Not Occur" for any of the members in the sample.

UAS-NY Assessor - Bathing

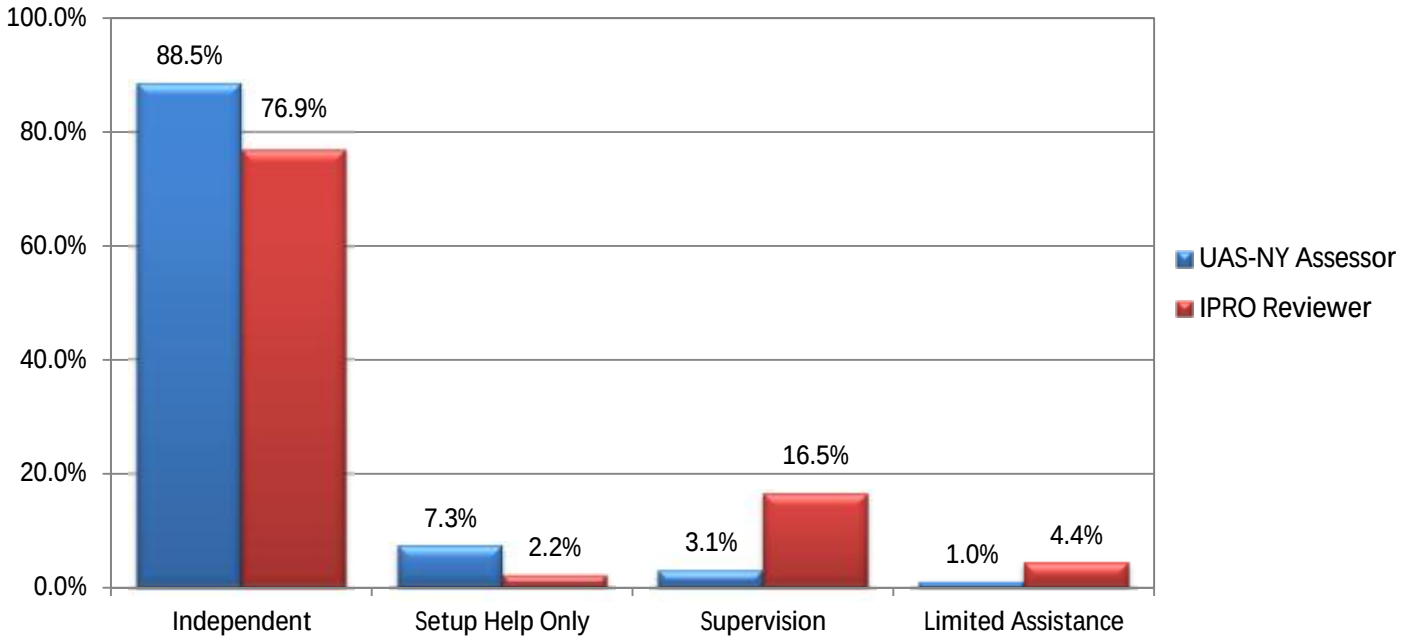


IPRO Reviewer - Bathing[1]

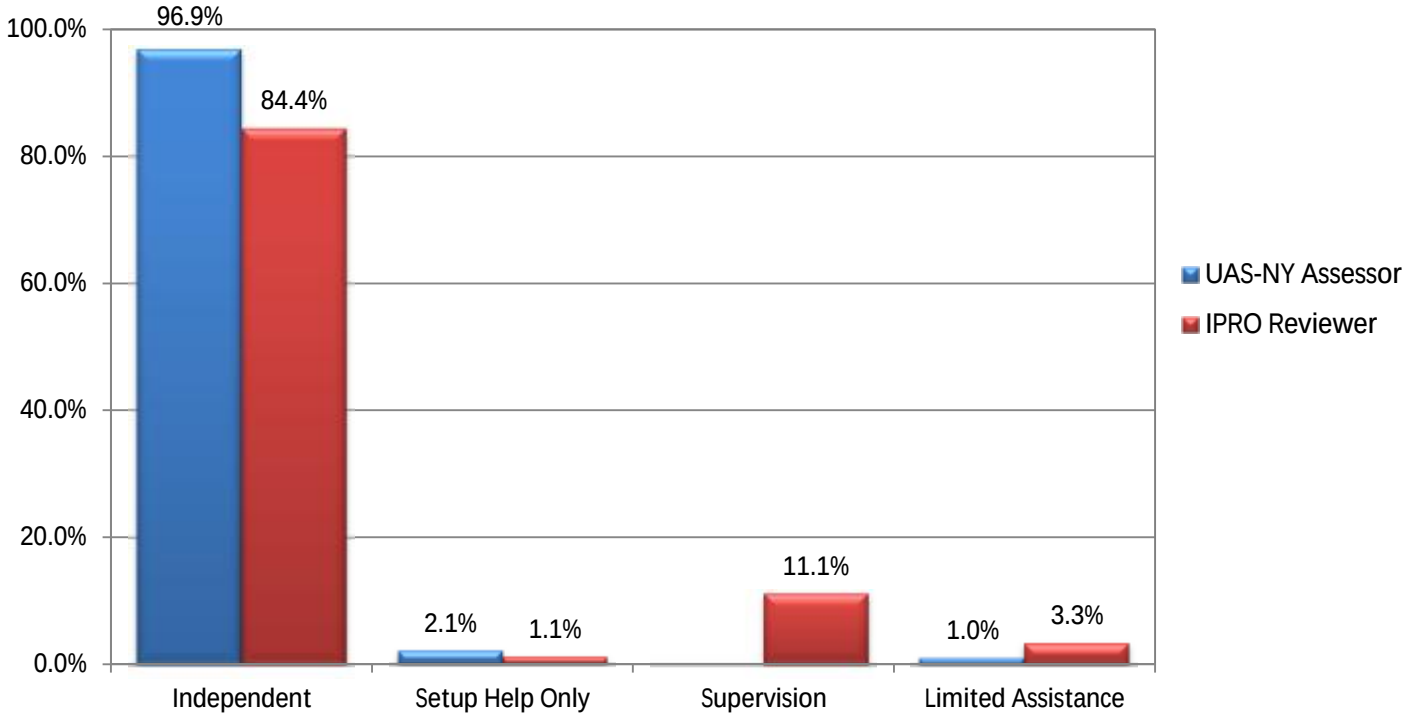


[1] For *Bathing*, the IPRO Reviewers did not find evidence for "Extensive Assistance", "Maximal Assistance", "Total Dependence", or "Did Not Occur" for any of the members in the sample.

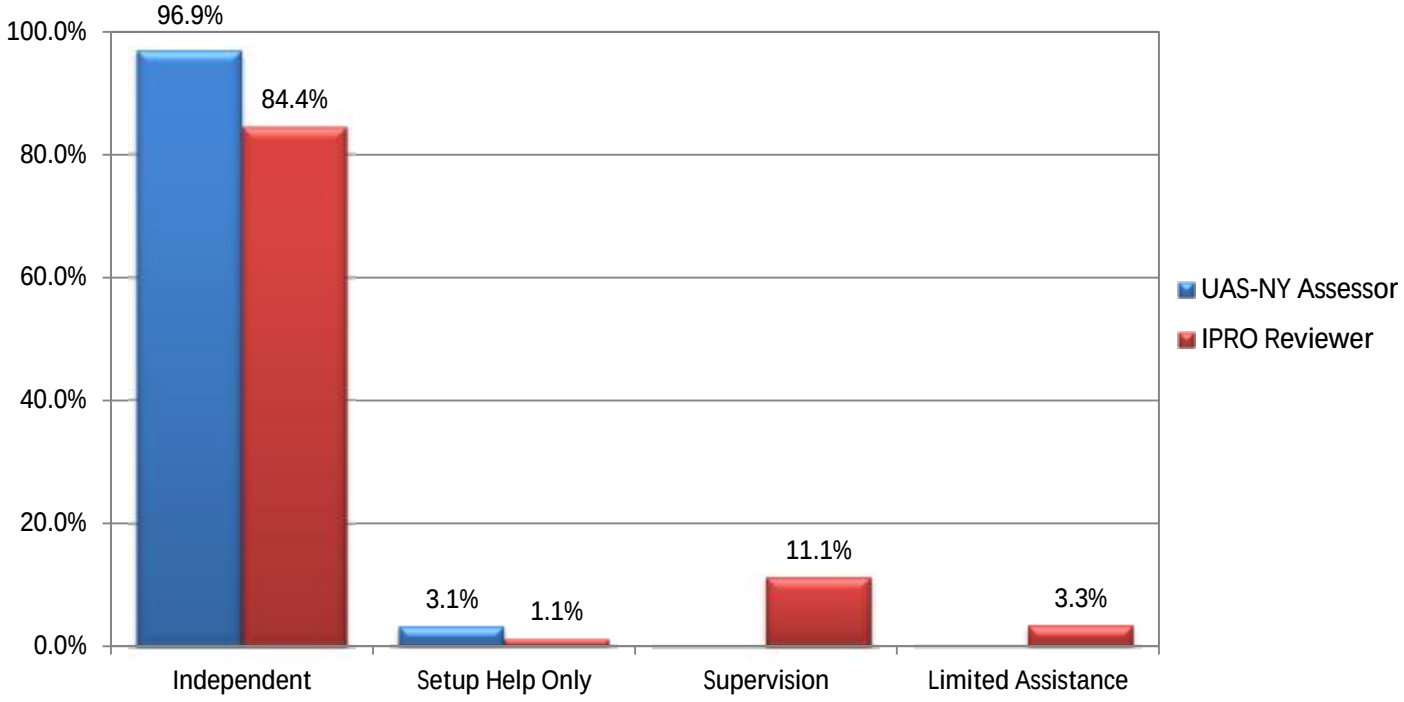
Personal Hygiene



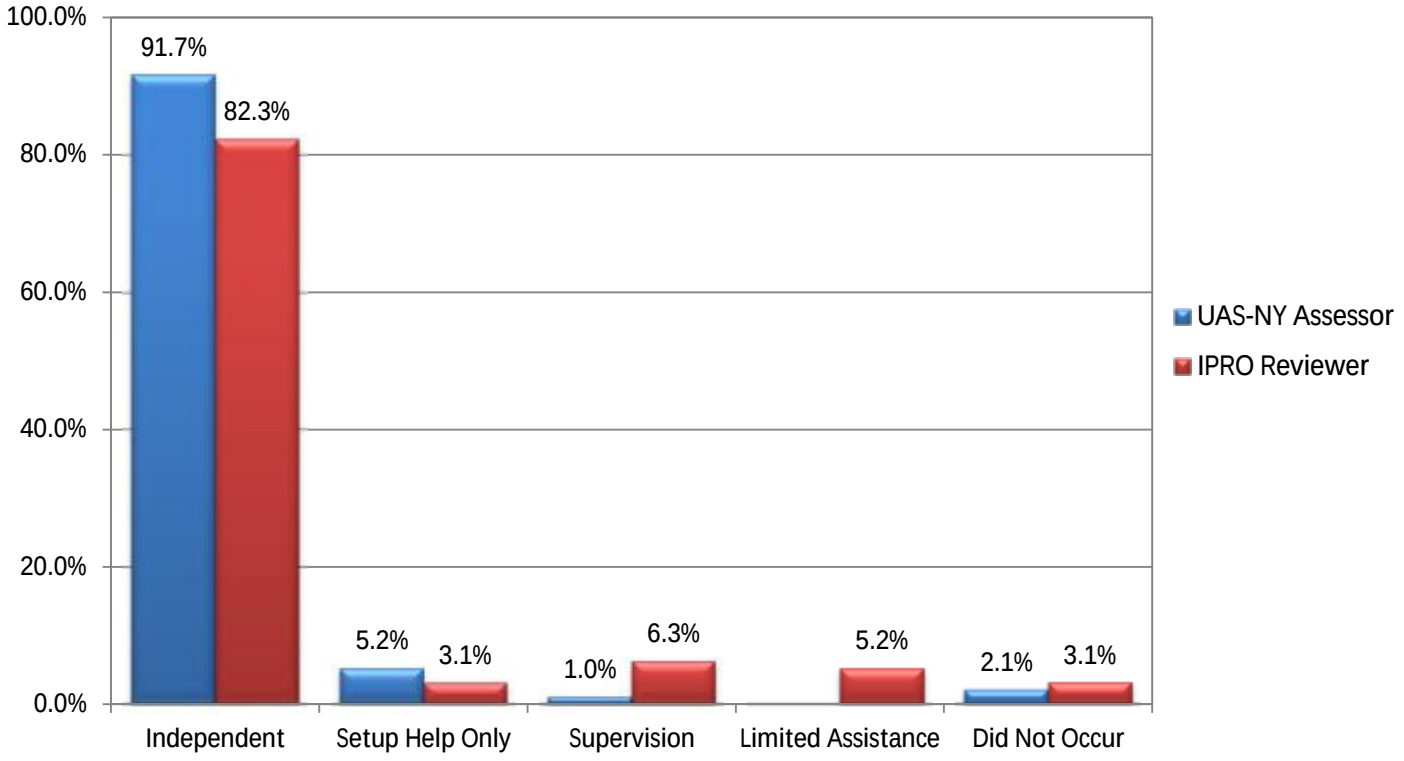
Dressing Upper Body



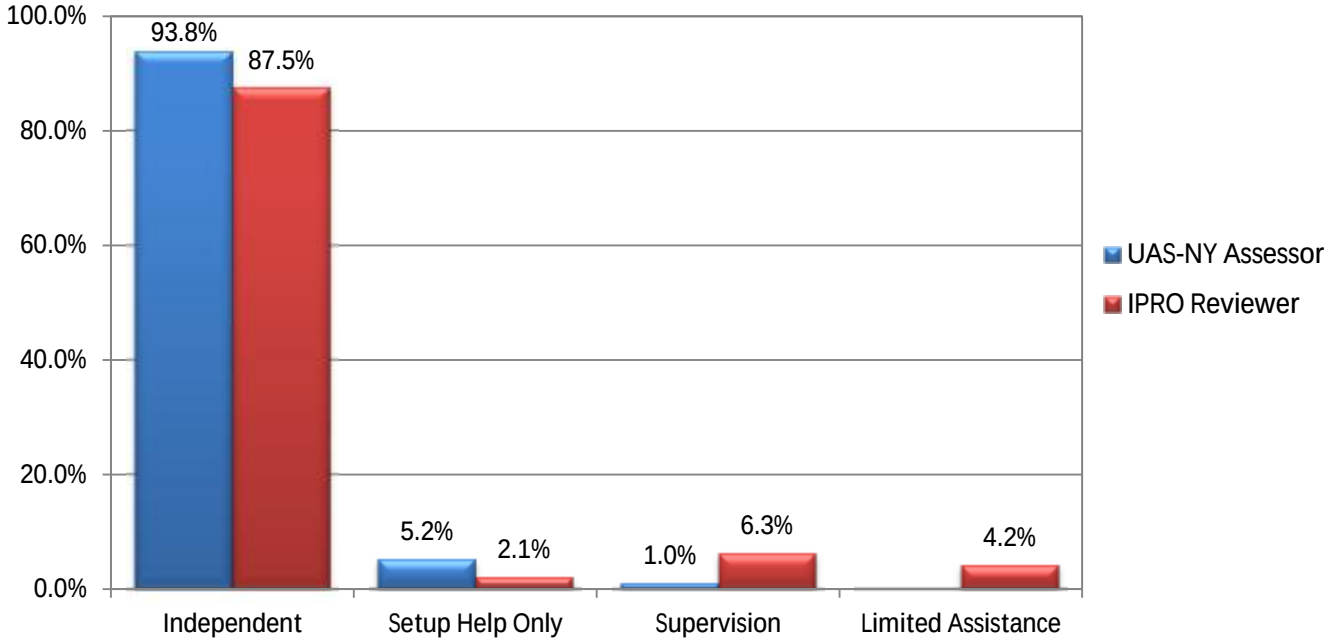
Dressing Lower Body



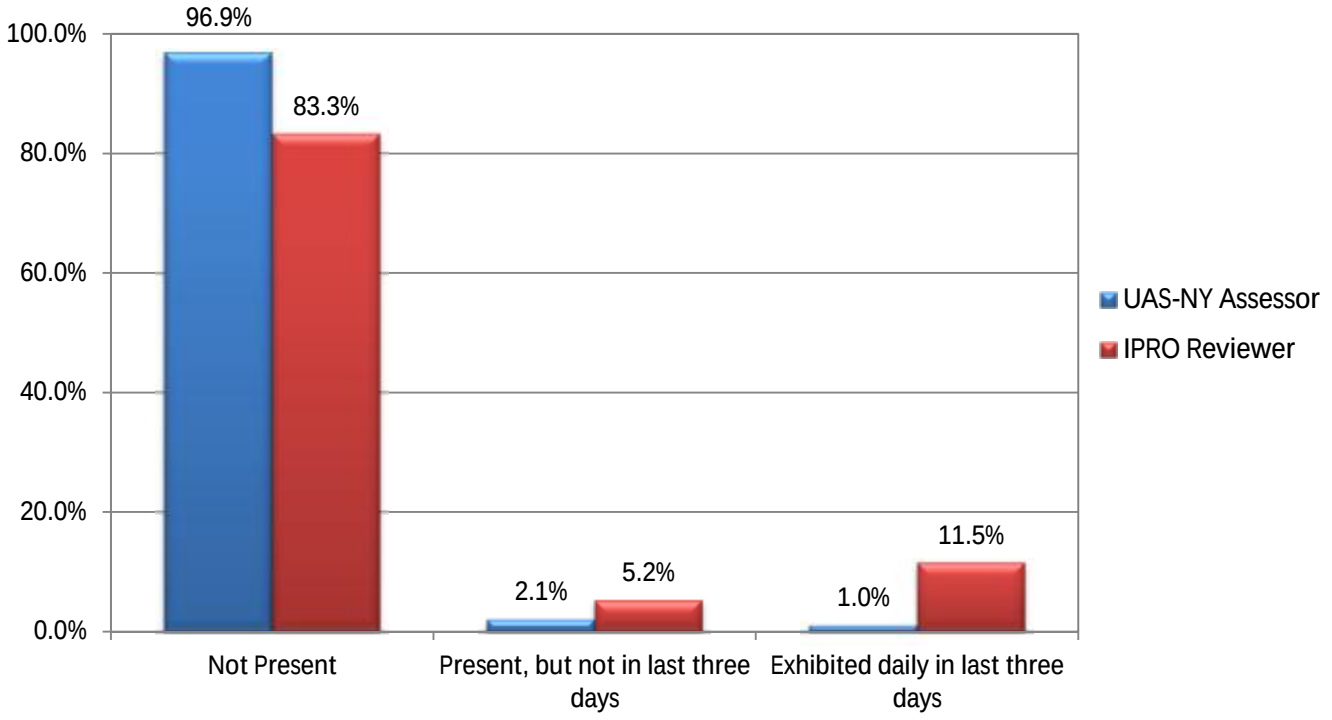
Walking



Locomotion



Balance



[1] This UAS-NY CHA item assesses balance as "how transfers from sitting position to standing", and not any other type of balance issue.

Section Five: Conclusions and Recommendations

a) General Findings

IPRO reviewers found evidence to support UAS-NY assessor ratings indicated by an agreement rate of 87.7% of all elements reviewed, inclusive of those elements with evidence found outside of the 3 day window. For the majority of elements where disagreement was found, a higher level of acuity was reported, representing 9.3% of all the elements reviewed.

Tables 10-25 present agreement rates for those elements with statistically significant differences between the reviewers' findings (UAS-NY assessor and IPRO reviewer). Disagreement for cognitive items (e.g. *Cognitive Skills for Daily Decision Making, Procedural and Short Term Memory*) revealed a significantly higher percentage of IPRO reviewer responses rated as minimally impaired versus the UAS assessor rating as modified independence (supporting a higher level of acuity found by IPRO reviewers). Similarly, IPRO reviewers identified more members as having "memory problems" versus the UAS-NY assessors, who identified more members with "no memory problems". Disagreements with IADL and ADL elements (e.g. *Meal Preparation, Bathing, Personal Hygiene, Upper and Lower Body Dressing*) indicate IPRO reviewers reporting higher rates of responses with members requiring supervision and limited assistance than did the original UAS assessors. Again the IPRO review supports a higher level of acuity.

Inconsistencies were found when comparing the PRI findings and the UAS-NY findings for similar cross-over items in general. Interestingly, IPRO reviewers noted a trend in the medical record documentation; in many instances the UAS-NY CHA/FS assessments and the PRI assessment were completed on the same day by the same assessor. Although the crosswalk between the UAS-NY CHA/FS and PRI are not exact, many of the same items are being assessed, and for several cases it was noted that the comparison of the assessor's evaluation of the similar items (e.g. balance, behaviors) on the different assessment tools, revealed different findings. There were instances of UAS-NY assessors providing details in a comment which contradicted their own rating (e.g. UAS-NY comment that the member wanders, but the UAS-NY assessor selected "wandering not present"). These instances might be examples of entry error or might indicate the assessor interprets the same element differently depending on the tool. Either way the finding indicates the need for further training.

On an overall basis, across all items validated, there appears to be some level of significant difference ($p<.01$) between the higher level of acuity observed within the 3 day window timeframe (5.7%) and outside of the timeframe (9.3%). However, it would not appear as though the NFLOC score would be impacted if the 3 day timeframe was expanded. Items with the most significant differences (e.g. Meal Preparation, Managing Medications) do not affect the NFLOC score. However, when drilling down to some specific NFLOC items (e.g. Bathing, Dressing Upper Body, Dressing Lower Body) significant differences were found, as previously cited in this section.

NFLOC scores for the audit sample were re-calculated based upon IPRO's findings. Of the 96 records reviewed, the IPRO score matched the UAS-NY assessor score in 35 records (36.5%). Of the 61 records with non-matching scores, 53 records had an IPRO score greater (higher acuity) than the UAS-NY assessor score. Moreover, of the 61 records with non-matching scores, 26 records (42.6%) had an IPRO score greater than or equal to 5, versus zero records greater than or equal to 5 based upon UAS-NY assessor findings, again suggesting higher acuity than originally found. This represents a statistically significant difference ($p<.001$). The mean, or average, NFLOC score based upon UAS-NY assessor findings was 2.06, versus a mean NFLOC score of 4.09 resulting from the IPRO review. Of the 26 records that moved to a score greater than 5 from the IPRO review, the mean or average score was 8.69, with scores ranging from 5 to 18.

b) TBI Issues Impacting NFLOC Scores

The ramifications of TBI are remarkably complex; therefore, the assessment of cognitive, social, behavioral, emotional and physical problems is required to determine prognosis, treatment planning and evaluation of treatment effectiveness. Additionally, substance abuse history is a strong predictor of long-term outcomes (Bogner, et al 2001) and previous alcohol abuse increases the risk of developing mood disorders after TBI, along with emotional disturbance which may lead to abuse relapse (Jorge, et al 2005).

The following discussion pertains to the assessment categories cited above. Significant disagreement reflecting a higher level of acuity was found in the validation of cognitive items by IPRO reviewers including *Cognitive Skills for Daily Decision Making, Short-term Memory and Procedural Memory*. While all of these items are included in the NFLOC score there are other key components in the assessment of TBI patients that are not. IPRO reviewers noted many of the TBI Waiver Program members needed significant assistance with IADLs related to procedural memory such as meal preparation, paying bills and shopping and such items were correctly incorporated into their member-specific service plans. *Meal Preparation* was one of the UAS items validated and found to have a significant level of disagreement with most disagreement reflecting a higher level of acuity. However, the only IADL included in the NFLOC score is *Stairs (Performance Only)*. A significant level of disagreement, most representing a higher level of acuity, was also found with a subset of the ADLs including *Bathing, Dressing Upper Body, Dressing Lower Body*, *Personal Hygiene, Walking and Locomotion*. All of these items are included in the NFLOC score with the exception of personal hygiene and walking. IPRO reviewers found a significant proportion of members reviewed in the sample had a history of substance abuse. Although substance abuse assessment is not factored into the NFLOC score, it has been shown to be a predictor of long-term outcomes in TBI. Behavioral UAS items such as *Verbal Abuse, Physical Abuse, Wandering* and *Resists Care* also showed significant levels of disagreement, with IPRO reviewers finding a higher level of acuity. Emotional issues are partially addressed in the behavioral items included in the NFLOC score; although mood is not specifically addressed. IPRO reviewers found mood disorders to be prevalent in the cases reviewed.

During the course of the medical record review, multiple examples of NFLOC scores with large numerical changes in a one year period were found (case examples cited below). Such changes reduced the members' NFLOC scores from a level meeting nursing facility level of care requirements one year to a level not meeting the requirements the next year, at times with very few items being scored differently between the two assessments. Without direct access to the NFLOC algorithm, it appears as though incontinence is weighted heavily and for the TBI sample in general, incontinence did not seem to affect the members' daily lives as much as cognitive limitations, limitations with IADLs and ADLs and behavioral issues.

Although balance was validated in the study, it is not a UAS-NY item included in the NFLOC score. Also, the balance item validated only evaluates "difficult or unable to move self to the standing position unassisted", which essentially addresses only one form of transfer. IPRO reviewers noted that members displayed other balance problems, which also were not captured in the NFLOC score such as vertigo.

It is apparent that the TBI population exhibits limitations and problems that are somewhat unique to the condition and seem likely to differ from issues found in the generally more elderly MLTC population. Therefore, it makes sense that the NFLOC score components and weighting of involved items more closely match the characteristics and needs of the TBI population.

The two case examples below highlight different scenarios in which a member moved from a qualifying NFLOC score in 2014 to a NFLOC score that does not meet nursing facility level of care requirements in 2015. Both case examples illustrate the potential variation in NFLOC scores from year to year, and indicate possible training issues.

c) Case Examples

Case Example #1:

A member had a NFLOC score of "11" on 7/17/2014. The NFLOC score the following year from an assessment completed on 8/27/2015 was "2". Therefore, in a one year period the member went from a qualifying NFLOC score to one that does not meet nursing facility level of care requirements. The items that differed on the two UAS-NY CHA assessments are as follows: *Cognitive Skills for Daily Decision Making, Making Self Understood, Verbal Abuse, Resists Care, Bathing, Dressing Upper and Lower Body and Bladder Continence*. Half of the items were only one level of acuity higher in 2014, while the other half was more than one level of acuity higher in 2014. IPRO reviewers agreed with 40 items from the 2015 UAS assessment and disagreed with 3 items choosing a higher level of acuity (*Meal Preparation, Medication Management and Primary Mode of Locomotion*). The *Meal Preparation* and *Medication Management* elements are not part of the NFLOC score. This case example illustrates the amount of potential variation from year to year and between individual reviewers in the same year, which brings accuracy into question.

Case #2

A member had a NFLOC score of "10" on a UAS assessment completed on 6/25/2014. The NFLOC score the following year from an assessment completed on 6/5/2015 was "3" Therefore, in a one year period the member went from a qualifying NFLOC score to one that does not meet nursing facility level of care requirements. Only four validated items were scored differently between 2014 and 2015, with one item actually increasing in acuity level in 2015. Additionally, when comparing 2015 UAS-NY assessment results to IPRO nurse reviewer validation results, IPRO reviewers rated 5 items (Cognitive Skills for Daily Decision Making, Bathing, Hygiene, Dressing Upper Body and Dressing Lower Body) with a higher level of acuity and 3 items (Making Self Understood, Vision and Bladder Continence) with a lower level of acuity. It is feasible that the member's condition improved from 2014-2015, however, with the significant degree of disagreement between the UAS-NY assessor and the IPRO reviewer as cited above, this large decrease in NFLOC score is more likely a result of UAS-NY assessor inaccuracies.

d) Study Limitations

The sources of documentation supporting IPRO responses were found in the member service plans in effect at the time of the UAS-NY assessments, as well as in the PRI assessments with timeframes often coinciding with the UAS-NY assessment dates. Additionally, IPRO reviewers had access to the initial service plans, which provided a considerable amount of the member's history, including the nature of the original injury or incident prompting the TBI condition. However, this documentation may not have been available to the UAS assessors. On the other hand, IPRO reviewers did not have access to the in-person observation and interview portion of the UAS-NY CHA/FS assessment. Sometimes member and family interview information was noted in the UAS comments; however it was not regularly documented. Therefore the validation study did not provide both sets of reviewers with the same information in the same setting.

The items assessed in a 3 day window period presented some challenges for the reviewers. In general, a PRI completed on the same day as the UAS-NY assessment provided the majority of documentation for such items. Therefore, since *Wandering, Resists Care* and a subset of ADLs are not captured on the PRI, the reviewers were unable to validate those items within the 3 day window. It was uncommon to find service plans or plans for protective oversight done in the 3

day window. However, IPRO reviewers were able to capture this information through documentation outside of the 3 day window.

The *Foot Problem* element addresses two components; documentation of a foot problem (e.g. bunions, etc), and whether or not the foot problem affects walking. Across all of the records there was little documentation addressing foot problems and foot issues were not addressed in problem lists. Documented issues with walking were found to commonly be related to strokes, with rare indication of foot problems. However, reviewers were uncomfortable assuming foot problems did not exist due to lack of documentation in the records provided. Additionally, if a foot problem was found, its effect on walking ability was not clearly documented.

e) Recommendations

- For any assessments conducted by independent Home Health Care Agencies, it is recommended that RRDC staff be consulted for case history information prior to the assessment, thus allowing this information to be incorporated into the assessment.

- In a number of records, IPRO reviewers observed indications of the following:

  a) A history of substance abuse (if not an active problem)

  b) Challenges with IADL elements such as meal preparation, paying bills, shopping, managing medications

  c) Mood disorder

  d) Balance issues that were unrelated to the balance item on the UAS, which only addresses difficulty or inability to move self to standing position unassisted (e.g. vertigo, unsteadiness while walking).

  The NFLOC score does not address these specific concerns. It may not be feasible to revise or adjust the NFLOC score, given the universal use of this score across long term care (primarily elderly and chronically ill) populations. However, the additional review of supporting documentation (e.g. past medical history) to accompany the NFLOC calculation can positively contribute to the accuracy of the assessment outcome and should always be a part of the process. In instances where the NFLOC score does not result in an eligibility determination, the assessment of the TBI population may be further enhanced by the addition of a subsequent clinical assessment or evaluation which focuses on cognitive and functional deficits, including the IADL challenges outlined above, mood disorders, and balance concerns. At the same time the member's record should be reviewed for a history of substance abuse. Studies have shown that a history of substance abuse can have some potential for mood disorder development and other emotional disturbances. In a number of records the inability to manage finances was documented and should also be considered as part of the subsequent evaluation.

  The evaluation should take into account the periodicity of relevant conditions, behaviors or issues possibly not manifested at the time of the assessment but with some likelihood of occurrence in the future, and should also take into account related safety concerns for the member.

- Consider enhancing the standardized mandatory UAS-NY assessor training program already in place, with additional focus on UAS-NY elements found to have higher levels of disagreement between UAS-NY assessors

and IPRO reviewers. Such training enhancements should include the importance of consistent and adequate documentation within the UAS-NY, as well as across documents such as the PRI.

Citations:

Bogner JA, Corrigan JD, Mysiw WJ, Clinchot D and Fugate L. A comparison of substance abuse and violence in the prediction of long-term rehabilitation outcomes after traumatic brain injury. *Archives of Physical Medicine & Rehabilitation* 2001 82(5):571-7 May.

Jorge RE, Starkstein SE, Arndt S, Moser D, Crespo-Facorro B and Robinson RG. Alcohol misuse and mood disorders following traumatic brain injury. *Archives of General Psychiatry* 2005 62(7):742-9 Jul.