Using NCI-AD data to understand the impact of Managed long-term services and supports (MLTSS)

Lessons from national and state evaluations

Presented by Andrea Wysocki (Mathematica), Jenna Libersky (Mathematica), and Mary Olsen Baker (Minnesota Department of Human Services)

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Agenda

- Overview of the National MLTSS evaluation (Andrea Wysocki)
- NCI-AD findings from the National MLTSS Evaluation published in 2020 (Jenna Libersky)
- Current reflections on the approach and findings (Andrea Wysocki)
- NCI-AD in Minnesota (Mary Olsen Baker)

Overview of the National MLTSS Evaluation

(Andrea Wysocki)

Motivation for evaluating MLTSS

- **States are increasingly turning to managed care rather than fee-for-service (FFS) systems to provide long-term services and supports (LTSS)**
  - As of 2019, 23 states were operating 33 Medicaid managed LTSS programs (MLTSS)[1], up from 8 states in 2004
  - In 2019, over 1.3 million people receive LTSS from managed care[2], at a cost of over $45 billion[3]
- **MLTSS programs hold potential to improve care over FFS**
  - Proponents say they provide less costly, person-centered home- and community-based alternatives to institutional care; improve care quality and coordination; increase quality of life; and reduce the use of unnecessary hospital and institutional services
  - Opponents say managed care plans can create adverse effects on health and long-term care, if they restrict access to services or do not ensure service quality and coordination
- **There has been relatively little research on the outcomes of MLTSS compared to FFS**
  - What does exist is limited in scope (e.g., one state, few outcomes, or no comparison group)
  - Findings on service use and cost are mixed, with no clear advantage for MLTSS
  - Findings on experience are usually specific to one state or program, so are difficult to generalize

[1] Excludes Programs for All-Inclusive Care for the Elderly (PACE) and Financial Alignment Initiative (FAI) programs

[2] Source: CMS 2019 Managed Care Enrollment reports, unpublished. This figure underestimates MLTSS users because it excludes four states that did not report this data to CMS: Florida, Idaho, Illinois, and Kansas,

[3] Source: CMS 2019 CMS LTSS expenditure reports, unpublished. This figure underestimates total MLTSS spending because it excludes five states that did not report this data to CMS: Arkansas, California, Delaware, Illinois, and Virginia.

Overview of the National MLTSS Evaluation

- **From 2014-2020, CMS contracted with Mathematica to evaluate several 1115 demonstration types including MLTSS programs under any federal authority**
- **This "National MLTSS evaluation" had two components:**
  1. Two cross-state evaluations of the outcomes of MLTSS programs (published in 2018 and 2020)
  2. Seven rapid cycle reports on topics of interest (e.g., waiting lists; critical incidents, grievances, and appeals)
- **The outcomes evaluations and rapid cycle reports are available on Medicaid.gov**
  - See: https://www.medicaid.gov/medicaid/section-1115-demonstrations/1115-demonstration-monitoring-evaluation/1115-demonstration-federal-evaluation-meta-analysis/index.html

Overview of the National MLTSS Evaluation, cont'd

/ The final evaluation used three data sources

1. T-MSIS Analytic Files (TAF) used to evaluate service use and quality
   - Data included person-level enrollment, claims, and encounters for 2014/2015 – 2017
   - Comparison approach varied by state
     - Unmatched: New Mexico and New York
     - Matched to FFS beneficiaries: Florida (compared with South Carolina), Kansas (compared with Oklahoma), and Tennessee (compared with Georgia)
   - Examined 10 nursing facility, HCBS, and hospitalization measures
2. LTSS expenditure reports used to understand spending
   - Descriptive analyses of trends across all reported MLTSS states
3. **NCI-AD used to evaluate access to care, beneficiary experience, quality of life**

NCI-AD findings from the National MLTSS Evaluation

(Jenna Libersky)

About the NCI-AD survey

- **NCI-AD is a voluntary survey first used by state aging and disability agencies in 2015/2016**
  - As of 2021, 29 states have participated in one or more years
- **Its purpose is to assess the quality of life and outcomes of seniors and adults with physical disabilities who are accessing publicly funded services**
  - NCI-AD applies to any publicly funded LTSS program, including those that cover nursing facilities
  - States select programs to include in their survey collection
- **The survey collects information on key facets of LTSS**
  - Topics include service and care coordination, community participation, choice and decision making, employment, rights and respect, health care and safety

About the NCI-AD survey, cont.

- **NCI-AD was fielded in three survey waves beginning 2015, 2016, and 2017**
  - Our study included data from 16 states in 2015-2016, 11 in 2016-2017, and 15 in 2017-2018
- **Due to the COVID-19 pandemic, the 2019-2020 data collection period was unexpectedly abbreviated**
  - Since states were in various stages of data collection, data for 2019-2020 are not a true comparison between programs or states for this year or prior years
- **Though MLTSS and FFS states are represented in each year, the mix of states surveyed each year varies**

Approach to analyzing NCI-AD data in the National MLTSS evaluation

- **Objective: Compare findings on select outcomes among MLTSS states to FFS states with 1915(c) waiver populations that are similar to those enrolled in MLTSS**
- **Approach:**
  1. Select survey items to include in the analysis
  2. Identify treatment (MLTSS) and comparison (FFS) groups
  3. Process the data
  4. Use statistical models to estimate the impact of MLTSS on each outcome (survey item and domain) by year and averaged over all years

Survey items included in the analysis

We selected 33 of 106 possible items from the 2015-2016 survey wave

- These items best aligned with our research questions (access, experience of care, and quality of life)
- They did not duplicate other measures used in the evaluation
- They did not change across our study period (3 survey waves)
- ADvancing States and HSRI confirmed that the items were among the most important for states seeking to monitor and improve quality of MLTSS

Survey items fell into 10 domains:

1. Access
2. Care coordination
3. Control
4. Everyday living
5. Health care
6. Rights and respect
7. Relationships
8. Safety
9. Satisfaction
10. Service coordination

Treatment and comparison groups

- **We used program descriptions in the state NCI-AD reports to separate findings among MLTSS enrollees from those who use HCBS or nursing facility services on a FFS-basis**
- **We pooled data across states into an MLTSS group (treatment) and FFS group (control)**
- **We repeated the process for three survey waves**
  - Waves = **(1)** 2015-2016; **(2)** 2016-2017; and **(3)** 2017-2018
  - Though MLTSS and FFS states are represented in each year, the mix of states and programs surveyed each year varied

Treatment and comparison groups, cont.

/ Wisconsin example

Figure 2. Number of survey-eligible service recipients, number of analyzed su

	Program	Number of analyzed surveys	Number of eligible participants	Ma lev
MLTSS	Family Care, Frail Elderly (FE)	318	16,765	
MLTSS	Family Care, Physically Disabled (PD)	325	7,920	
FFS	IRIS, Frail Elderly (FE)	294	3,056	
MLTSS	IRIS, Physically Disabled (PD)	310	5,730	
MLTSS	Partnership, Frail Elderly (FE)	238	1,211	
MLTSS	Partnership, Physically Disabled (PD)	280	1,128	
FFS	Long-Stay FFS Medicaid Nursing Homes (FFS NHs)	313	9,863	
Exclude	PACE	172	455	
	Total	**2,250**	**46,128**	

/ Overall sample included MLTSS programs in 7 states and FFS programs in 14 states

- MLTSS states = DE, KS, MN, NJ, TN, TX, WI
- FFS states = CO, DE, GA, IN, ME, MN, MS, NE, NJ, NV, OH, OR, VT, WI

Data processing

/ Before fitting the model, we:

- Adjusted response percentages to correspond to MLTSS or FFS respondents only
- Collapsed variables so all responses were mutually exclusive
  - Generally followed HSRI's collapsing rules, which grouped moderate and negative responses together
- Reworded survey questions and coded responses for positive directionality
- Converted survey question response percentages to counts based on response sample sizes

Statistical model

We used a Bayesian hierarchical ordinal logistic regression model

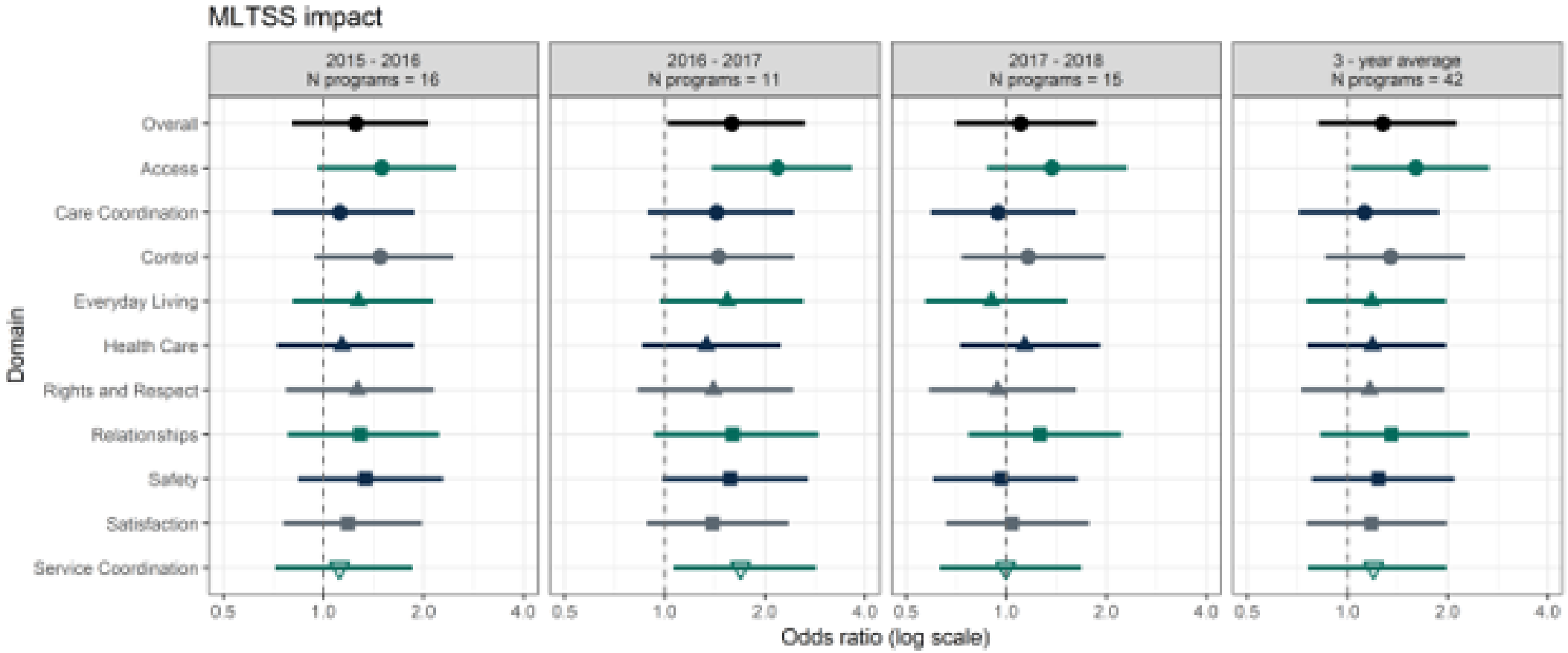
- This method estimates the impact of MLTSS on each outcome (i.e., survey item)
  - We presented estimates as log odds ratios
  - Higher log odds ratios indicate higher responses for MLTSS respondents than FFS
- Models were risk-adjusted for:
  - Some of the same characteristics as HSRI used: age, gender, primary language, who the person lives with, race and ethnicity, rurality, and type of residence
  - We also included the following state-level features: percentage of LTSS spending for HCBS, number of home health/personal care aides per 100 people age 18+ with ADL, number of nursing facility beds per 100 people age 18+ with ADL (different approach from HSRI)
- All outcomes were fit in a single model, avoiding multiple comparisons problems

Findings (summary)

- **On average, MLTSS enrollees had 28 percent higher odds of responding favorably to questions related to experience of care and quality of life compared to FFS beneficiaries**
- **Averaged across the three survey waves, measures in all 10 domains examined showed more favorable responses among MLTSS enrollees**
  - However, only measures in four domains (access, control, relationships, and satisfaction) favored MLTSS in all three survey years
- **Responses among MLTSS enrollees were most consistently favorable on questions related to self-reported access to care, particularly for transportation to get to medical appointments and having needed equipment in the home**

Findings (detail)

Figure IV.1. Odds of MLTSS enrollees responding favorably to NCI-AD survey items, overall and by domain, compared to FFS beneficiaries



Current reflections on the approach and findings

(Andrea Wysocki)

Findings in context of other outcomes

- **Mixed findings related to service use and quality of care outcomes**
  - Among the three states evaluated using a matched comparison group design (our most rigorous method), we found mixed results on service use outcomes across programs for all measures and populations
  - No consistent pattern for MLTSS effects = no clear advantage for MLTSS over FFS in all states and all populations
  - These findings were consistent with other studies that have evaluated service use and quality of care for MLTSS enrollees
- **Favorable findings for MLTSS compared to FFS beneficiaries across all 10 domains we examined for self-reported access, experience, and quality of life**
  - These findings are consistent with a 2017 survey of Medicaid agency staff who reported on the motivations for MLTSS and its perceived effects (Dobson et al. 2017)
  - The findings also suggest efforts to expand access have been fruitful

Interpreting the findings in the present day

- **Though our findings from NCI-AD were consistent across three survey years, it is unclear whether they would hold in 2021**
  - NCI-AD was abbreviated in the 2019-2020 round due to the public health emergency (PHE) but restarted in 2021-2022
  - The PHE caused real changes to service delivery in both FFS and MLTSS that likely interrupted previous trends
    - Although some MLTSS plans and other agencies stepped up to provide innovative strategies, their effect on outcomes is not known
  - The changes in service delivery may continue for the foreseeable future
    - Provider closures and workforce shortages may continue to interrupt service delivery, unless federal and state investments can shore them up
    - Infections in congregate settings may have shifted consumer preferences toward HCBS
    - Increased use of telehealth may open new options to deliver some services, but their effect is unknown

Implications for future work

- **The PHE and new federal investments are likely to prompt significant changes to Medicaid LTSS**
- **Conducting additional, multi-year (longitudinal) analyses of beneficiary survey data (like NCI-AD) can help policy makers and program staff understand their impacts**
  - Additional years of data can help chart time trends
  - More data lends more power to findings, especially among subgroups
  - Expanding analyses to include more states will also provide more robust findings to ensure that patterns were not driven by unique features of a small set of states included in the analysis
- **Adding federal reporting requirements and funds to support collection and analysis could help ensure beneficiary survey data is being used to its full potential**

NCI-AD in Minnesota

Mary Olsen Baker

HCBS Conference, December 2021

NCI-AD in Minnesota: overview

- One of five standardized NCI national survey tools implemented in Minnesota
- NCI survey results used to monitor and improve services and supports by providing data at both a state-level and program level

NCI-AD – older adults sample

Up to 2,000 completed surveys

- Stratified sample
  - Payer (for example: managed care organization)
  - Race and ethnicity
- Population: people receiving services through state plan MA, alternative care program, and the elderly waiver program
- Older adults surveyed in 2015-16 and 2017-18

Projects using NCI-AD data

Projects

- MCO Workgroup (a programmatic analysis)
- Systems level efforts (state-wide analyses)
  - Factor analysis
  - Results-based accountability project (e.g., turn-the curve)

Goal

Improve service quality for older Minnesotans

MCO workgroup (programmatic effort)

- A collaborative effort between Department of Human Services and Managed Care Organizations
- Explore use of the NCI-AD data to identify quality improvement activities

  (as described in contracts with the health plans)
- Started in 2018
- Currently on hold

MCO workgroup: How it got started

- **MCOs invited to participate**
  - Shared high-level goal
  - Partners asked for data
- **Data file provided to MCOs**
  - Included background information, indicators/outcomes, and number of responses
  - Split-out by health plan
  - Health plans de-identified

MCO workgroup: Getting started

- Partner roles defined
- Background about NCI-AD survey and results
- MCO members able to ask technical questions about data file received
- Conducted two brainstorming activities
- Next steps determined based on brainstorming

Brainstorm Activity #1

Participants asked to reflect and share their thoughts about the identified workgroup purposes

- Work collaboratively
- Make the most of the NCI results
- Identify how best to use results to inform quality improvement efforts

MCO Workgroup: Goals/objectives

Four goals developed based on brainstorming about purpose

- Analyze the NCI-AD older adult managed care data
- Identify measures of quality using the NCI-AD data
- Explore how the NCI-AD data can be used with other data sources to provide a comprehensive picture of managed care services
- Share the NCI-AD findings with DHS and MCO stakeholders
- Use the NCI-AD data for quality improvement projects

Brainstorm Activity #2

Thinking about the Workgroup purpose and the data, write down your thoughts about:

- What will this group do?
- What will we do with this data?
- How will the data be used?

MCO Workgroup: Outcomes

Brainstormed ideas grouped into 6 actionable items

- Analyze indicators
- Compare findings
- Share findings
- Improve services
- Service delivery implications
- Implications specific to person-centered planning

MCO Workgoup: Analytic plan purpose

Analytic plan purpose

To look at the NCI-AD data in different ways to find new insights and ways specific to improving service quality

- Analytic plan includes ideas from brainstorming during the first NCI-AD MCO Workgroup meeting held March 20, 2018.

MCO Workgroup: Bi-monthly meetings

Topics explored between June 2018 – August 2019

- How is Minnesota doing?
- How does this project fit into an overall framework and relate to other projects?
- What more do we need to know about our NCI-AD data?
- What indicators do we want to use to measure quality?
- What can we work on to improve quality? & How do we share what we're learning?

MCO Workgroup: Action steps

Through meetings and homework we sought to:

- ✓ Learn about the data, including what it tells us and how it can be used
- ✓ Further analyze the data to better understand how Minnesota is doing relative to other states and over time
- ✓ Determine which NCI-AD indicators will be useful for measuring quality

- ○ Identify feasible quality improvement projects
- ○ Implement quality improvement projects

MCO Workgroup: Outcome and Status

Outcomes

- Workgroup selected NCI-AD indicator "What is the service of care coordination?"
- MCO members formed a collaborative to focus on training efforts specific to this indicator
- MCO collaborative surveyed care coordinators and shared results

Status (December 2019)

- Bring ideas back to full MCO workgroup

Systems Level (Statewide analyses)

NCI-AD Factor Analysis

Why complete a factor analysis

- Identify a small set of survey questions that group around common themes (e.g., quality of care, quality of life)
- Provides evidence about what questions are statistically related and give greater insights into a common theme
- Find questions that are important to track both statewide and for the subpopulations included in the sample

NCI-AD Factor Analysis: Finding

Determined which NCI-AD indicators group together into factors

- Factors found relate to four quality of life domains
  - Security
  - Community Inclusion
  - Physical Function
  - Care Experience

LTSS Results-based accountability (RBA)

- Data has shown disparities in experience and quality of life by race and ethnicity for older adults served
- Uses NCI-AD and Nursing Resident Quality of Life survey data
- Seek to Turn-the-Curve for one or more measures (i.e., survey results) related to disparities
- Project partners = Aging and Adult Services and Nursing Facilities Rates and Policy Divisions

LTSS RBA: Measures

- Selected measures include
  - Safety
  - Support
  - Well-being
  - Social Engagement

LTSS RBA: Action steps identified

- Build partnerships with culturally specific groups to inform strategies to address disparities
- Conduct research to better understand issues and barriers experienced
- Work to improve knowledge of care coordinator role, when to contact them and how
- Offer equity and cultural competency training

DEPARTMENT OF HUMAN SERVICES

Thank You!