

# Utilization Analytics

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# Benefit Care Management → Cost Control

1. Does anyone know their average hours of service per member /day /week or /month for your members who are either:
  - a) Not receiving any long-term care benefits from you at home or
  - b) At home, but eligible to transfer to assisted living, memory care, nursing care
2. If so, how do these results compare with your expectations?
3. How do you set and manage your expectations?

# Basic Principles for CCaH Actuarial Projections

## 1. The actuarial equations:

Census at EOY = Census at BOY × Mortality and Withdrawal rates

Annual costs = Average census × Benefit costs

Benefit costs = Exp{benefit utilization} × Benefit/cost/unit

Exp{benefit utilization} = Frequency × Severity (actuarial terminology)  
= Pr{FS= Census/Functional Status} × Exp{Benefit units/FS}

2. How do you evaluate your ranges in amounts of services provided?
3. Are your care coordinators “connected” with your expectations?

# Utilization Budget Assumptions-Baseline

{Annual cost for 100 members = \$490,560}

Industry Consensus for Functional Status (Category) ↓	(1) % of census	(2) Cost per service unit	(3) EX{Hrs. care/day}	(4) EXpected daily costs	(5) = (1) x (2) x (3) Total daily costs
Well or "at risk"; no or limited health care benefits	94.0%	\$0	0	\$0	\$0
At home receiving benefits; not institutional care eligible	2.0%	\$24	3.0	\$72 = 2*24	\$144.00
At home receiving benefits; institutional care eligible	3.0%	\$24	18.0	Min(432,300) 432=24x8	\$900.00
Assisted living or nursing care	1.0%	\$300/day	24	\$300	\$300.00
Σ Total	100.0%				\$1,344.00

# 50% $\Delta$ in Ex{Hrs} $\rightarrow$ 22% Drop in Annual Costs {Annual cost for 100 members = \$381,060}

Industry Consensus for Functional Status (Category) ↓	(1) % of census	(2) Cost per service unit	(3) EX{Hrs. care/day}	(4) EXpected daily costs	(5) = (1) x (2) x (3) Total daily costs
Well or "at risk"; no or limited health care benefits	94.0%	\$0	0	\$0	\$0
At home receiving benefits; not institutional care eligible	2.0%	\$24	2.0	\$48 = 2*24	\$96.00
At home receiving benefits; institutional care eligible	3.0%	\$24	9.0	Min(216,300) 216=24x9	\$648.00
Assisted living or nursing care	1.0%	\$300/day	24	\$300	\$300.00
$\Sigma$ Total	100.0%				\$1,044.00

# 1 Member $\Delta$ FS $\rightarrow$ 18% Drop in Annual Costs

{Annual cost for 100 members = \$404,340}

Industry Consensus for Functional Status (Category) ↓	(1) % of census	(2) Cost per service unit	(3) EX{Hrs. care/day}	(4) EXpected daily costs	(5) = (1) x (2) x (3) Total daily costs
Well or "at risk"; no or limited health care benefits	94.0%	\$0	0	\$0	\$0
At home receiving benefits; not institutional care eligible	3.0%	\$24	3.0	\$72 = 2*24	\$216.00
At home receiving benefits; institutional care eligible	2.0%	\$24	18.0	Min(432,300) 432=24x8	\$600.00
Assisted living or nursing care	1.0%	\$300/day	24	\$300	\$300.00
$\Sigma$ Total	100.0%				\$1,116.00

# Collaborating to Create Utilization Benchmarks

1. Consensus agreement on functional status definitions
2. Setup systems to easily retrieve member utilization in benefit units with ability to combine by functional categories
3. Analyze and summarize “benchmarks” by age of plan
4. Future refinements
  - Length of time in plan
  - Age, gender, marital status