

**Medicaid Policy Cooperative Agreement Project
Case Mix Background Section Insert**

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Prepared for the Maine Department of Health and Human Services

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Nursing Facilities

Since 1993, MaineCare has utilized a case mix reimbursement system for nursing facility payment. Acuity-based or case mix reimbursement, a widely adopted method for public financing of nursing facility care, serves as the basis for payment in 31 state Medicaid programs and the Medicare Prospective Payment System (PPS) for skilled nursing care. Maine was one of the original case mix states participating in the design of this reimbursement methodology. In general, case mix reimbursement bases a portion of the per diem payment on the projected care needs and the estimated cost of caring for different types of residents. A provider is paid according to the mix of residents in the facility population with higher case mix indices calculated for higher acuity residents.

Rate setting method and payment procedures

The MaineCare program pays for nursing home care through the use of facility-specific, case adjusted prospective per diem rates¹. The basic rate is developed using each provider's historical direct and routine costs from a base year cost report and inflated forward to the current period. In 2009, Maine nursing facilities were rebased to 2005 base year costs². The prior rebased period was 1998. Fixed costs are based on the most recent audited costs and are considered a pass through. The direct and routine costs are subject to cost ceilings (upper limits). Certain ancillary services are reimbursed separately using a fee schedule.

Providers are grouped into three mutually exclusive peer groups for calculating cost ceilings:

1. hospital based facilities,
2. non-hospital based facilities with less than or equal to sixty (60) beds, and
3. non-hospital based facilities with greater than sixty (60) beds.

Special head injury, mental health and remote-island facilities receive contracted rates and are not case mix reimbursed.

Currently, rates are calculated quarterly and incorporate a case mix adjustment to the direct care component. The direct and routine cost components are subjected to component rate ceilings or upper limits. The lesser of the per diem cost component or the per diem ceiling are used to calculate the rate. These components are cost settled to the lesser of costs or the prospective rate. The fixed costs are adjusted to reflect the most recent audit. As of January 1, 2010, the average MaineCare nursing home rate was \$177.72.³ Direct care costs account for 52% of the rate and is adjusted by the facilities' case mix. Routine costs account for another 29% of the rate, while the remaining 19% is attributable to fixed costs. Facilities' rates range from \$133.75 to \$255.28.

¹ For a more complete understanding of the reimbursement methodology see the MaineCare Benefits Manual, Section 67, Chapter III <http://www.maine.gov/sos/cec/rules/10/ch101.htm>

² While additional funds were provided to rebase facilities to 2005 costs, not all facilities received a fee increase as a result of rebasing. Rebasing was effective December, 2009.

³ Based on 107 NF facilities providing care excluding hospital-based and brain injury facilities from the MaineCare rate setting database, Division of Financial Services as of 1/30/2010.

MaineCare reimburses head injury units (2 units) and hospital based facilities (3 units) at higher rates.

Resource Utilization Group (RUG)

The method for determining a resident's care needs is a key component of nursing facility case mix reimbursement. A number of nursing facility case mix systems have been developed over the last 20 years. However, the most widely adopted approach to case mix has been the Resource Utilization Groups (RUG-III). This classification system uses information from the Minimum Data Set (MDS), a component of the federally mandated Resident Assessment Instrument, to classify residents into a series of mutually exclusive groups representing the residents' relative direct care resource requirements. Maine participated in the study to develop the RUG-III classification.

The MDS contains information on the resident's nursing needs, ADL impairments, cognitive status, behavioral problems, and medical diagnoses. This information is used to define RUG-III subgroups. Maine has refined the RUG-III groups slightly from the national model to place residents with head injuries into the extensive category. A description of the model is included in Appendix A.

The RUG-III groups are organized in a hierarchy ranging from highest amount of resident care time needed to the least amount. Residents with more specialized nursing requirements, licensed therapies, greater ADL dependency or other conditions are assigned to groups higher in the RUG-III hierarchy. Residents who have only routine nursing needs, who are relatively independent in ADL function, and have neither cognitive impairment nor behavioral problems, fall in the lower groups.

Problem Behaviors in RUG-III

Over 40% of Maine nursing home residents exhibited problem behaviors.⁴ Problem behaviors are associated with many common conditions in nursing facilities including mental illness, Alzheimer's disease, related dementia and others. Problem behaviors, as identified by this resolve (Chapter 122), generally increase the care needs of these residents at significant emotional cost to residents, family and staff.

The RUG-III model recognizes problem behaviors and assigns a separate RUG category, Behavior Problems, to individuals classified in that group. However, only a minority of residents with problem behaviors classify into these groups. Most residents classify into other RUG groups that do not explicitly recognize problem behaviors. Other RUG classifiers, such as medical conditions, ADL, cognitive impairment, or symptoms of depression are more important determinants of resource use. Since many residents with problem behaviors have these conditions, their additional resource use may be taken into account, at least indirectly, by those conditions that serve as classifiers in the RUG-III model.

The RUG group was examined for residents in Maine nursing facilities who exhibited any behavior symptom in "the last seven days" from their most recent MDS assessment⁵. Table 1 lists the RUG groups for residents that exhibited behavior symptoms. The column that is labeled "Weight" provides the case mix weight assigned to each group. The case mix weight reflects the

⁴ There were 6,124 residents in Maine's nursing homes on 6/15/2009. The MDS recorded 2,570 (42%) residents that exhibited a behavior symptom in the last seven days

⁵ Residents' most recent MDS assessment as of 6/15/2009.

relative costliness, in terms of resource use – primarily direct care time, of members classified into the group. When the weights were developed they were standardized to the statewide average direct care time required to care for a resident. For example, a resident in the rehab high group with activities of daily living⁶ score of 13-18 (RHC) has a weight of 1.897 indicating that this resident requires 89.7% more direct care time than residents on average require.⁷

Residents in the Behavior Problem groups currently are assigned a slightly higher case mix score than residents with comparable levels of ADL dependency who fall into the RUG III Physical groups. However, a substantial number of residents with problem behaviors do not meet the conditions for the Behavior Problem groups. They have clinical conditions that place them in a higher case mix group, or they are too dependent in ADL (score of 11-18) to be placed in the Problem Behavior category. The majority of Maine residents with behavior symptoms (51%) were classified into the high physical care groups (PC2-PE2). For residents in this group, assistance with activities of daily living is their primary care need. Only about 1% of residents classify into group with weights of less than 1.000, suggesting all are recognized for requiring more care time than the resident average.

The most common problem behaviors exhibited (Table 1) were resists care (1,614 residents), socially inappropriate (1,169 residents) and wandering (1,006 residents).

Many clinicians would argue that residents with problem physical behaviors require more direct care resources than comparable residents without these disorders. Because of their problem behaviors, resident with problem behaviors are likely to require extra staff time to diagnose and treat their health conditions, cognitive impairment, mental illness, and assist in performing activities of daily living. Yet, measuring the need for additional care is complicated by other health and functional conditions that may interact with problem behaviors, especially when associated with dementia or cognitive impairment. Additionally, the numbers, types, and skill level of staff providing care as well as the setting of care (regular nursing facility unit or special mental health or Alzheimer's unit) will influence the resource use of the residents with problem behaviors.

The developers of the RUG-III classification system examined 1990 time study data from the Multi State Nursing Home Case Mix and Quality Demonstration.⁸ They concluded that resource use among residents with problem behaviors or with cognitive impairment undergoing rehabilitation or with special nursing requirements were not significantly greater than for similar residents without these conditions. In addition, they found that residents with problem behaviors or cognitively impaired residents with moderate to severe ADL impairment did not use significantly more direct care resources than similar residents without these conditions. Because of these findings, they designed the RUG-III to recognize problem behaviors or cognitive impairment among residents with only limited dependency in ADL.

⁶ Activities of daily living include assistance with bed mobility, transfer, eating, grooming, toilet use and bathing.

⁷ For a complete description of case mix reimbursement see: http://www.cms.hhs.gov/SNFPPS/01_Overview.asp

⁸ Fries, B. E., Schneider, D., Foley, W. J., *et al.* "Refining a Case-Mix Measure for Nursing Homes: Resource Utilization Groups (RUG-III)," *Medical Care* 32:668-685, 1994. Maine participated in this study as a Medicaid demonstration state.

Table 1: Maine Nursing Facility Residents with Behavior Symptoms Exhibited in the last 7 days Most Recent MDS Assessment as of 6/15/2009

Short description ¹⁰	RUG Group	Weight	Residents with Behavior Symptom ⁹						
			Wandering	Verbally Abusive	Physically Abusive	Socially Inappropriate	Resists Care	Any Behavior Item ¹¹	Percent Any Behavior
Rehab HI 13-18	RHC	1.897	18	13	8	21	26	48	1.9%
Rehab MED 15-18	RMC	2.051	47	50	35	80	104	168	6.5%
Rehab MED 8-14	RMB	1.635	40	14	6	23	39	76	3.0%
Rehab MED 4-7	RMA	1.411	5	2	1	1	7	10	0.4%
Rehab LO 14-18	RLB	1.829	4	6	5	8	8	17	0.7%
Extensive 3	SE3	2.484	21	15	15	28	34	54	2.1%
Extensive 2	SE2	2.057	42	47	22	60	90	131	5.1%
Extensive 1	SE1	1.910	0	1	1	3	5	7	0.3%
Special 17-18	SSC	1.841	15	25	19	40	44	74	2.9%
Special 15-16	SSB	1.709	10	18	12	26	40	61	2.4%
Special 4-14	SSA	1.511	17	13	4	17	24	44	1.7%
Complex 17-18D	CC2	1.826	22	45	37	55	69	98	3.8%
Complex 17-18	CC1	1.663	9	4	8	14	22	30	1.2%
Complex 12-16D	CB2	1.503	57	66	48	97	106	185	7.2%
Complex 12-16	CB1	1.389	13	10	2	15	26	48	1.9%
Complex 4-11D	CA2	1.331	25	13	5	14	25	39	1.5%
Complex 4-11	CA1	1.149	0	1	0	1	3	3	0.1%
Impaired 6-10N	IB2	1.199	11	1	1	5	5	13	0.5%
Impaired 6-10	IB1	1.152	60	23	14	24	43	74	2.9%
Impaired 4-5N	IA2	0.945	4	3	0	2	4	5	0.2%
Impaired 4-5	IA1	0.888	7	2	0	2	7	12	0.5%
Behavior 6-10	BB1	1.123	3	2	1	3	5	5	0.2%
Behavior 4-5	BA1	0.759	1	1	0	1	2	2	0.1%
Physical 16-18N	PE2	1.454	73	77	75	95	158	220	8.6%
Physical 16-18	PE1	1.421	156	165	183	237	335	492	19.1%
Physical 11-15N	PD2	1.323	139	68	39	103	140	250	9.7%
Physical 11-15	PD1	1.281	195	125	71	179	223	370	14.4%
Physical 9-10N	PC2	1.219	11	6	4	7	9	16	0.6%
Physical 9-10	PC1	1.088	0	4	1	5	2	6	0.2%
Physical 6-8	PB1	0.854	0	1	0	1	1	2	0.1%
Physical 4-5N	PA2	0.776	0	0	0	2	2	2	0.1%
Physical 4-5	PA1	0.749	1	0	1	0	6	8	0.3%
Totals			1,006	821	618	1,169	1,614	2,570	
					Total Residents 6/15			6,124	
					Percent with Behavior			42.0%	

⁹ A resident may have exhibited more than one behavior symptom in the past seven days. Numbers should not be added across behavior symptoms.

¹⁰ There are 44 RUG-III groups plus a group non-classifiable assessments (see Appendix 1). Only groups with residents exhibiting problem behaviors in the last 7 days are shown here.

¹¹ The distinct count of residents exhibiting any behavior in the last seven days.

CMS has recently proposed a revision to the RUG-III system, called RUG-IV, based on a new time study and analysis. The proposed model will be used for Medicare PPS reimbursement starting in October 2010 and timed with the implementation of the revised MDS (MDS 3.0). Results of the new time study¹² were consistent with the earlier studies -- that resource use among residents with problem behaviors or with cognitive impairment undergoing rehabilitation or with special nursing requirements were not significantly greater than for similar residents without these conditions. Additionally, they did not find a distinction between the limited ADL dependent resident with problem behaviors and cognitive impairment and have collapsed this into one group, Behavior Symptoms and Cognitive Performance, in RUG-IV. Currently, MaineCare is not proposing to move to RUG-IV until enough MDS 3.0 data has been collected to conduct a cost impact analysis.

Maine has developed special payment arrangements for selected mental health facilities and brain injury facilities, two conditions associated with behavior problems. As of January, 2010, payment rates for these facilities are:

1. Mental health units: \$212.45, \$251.54 and \$286.82;
2. Rehabilitative brain injury units: \$389.98 and \$601.95.

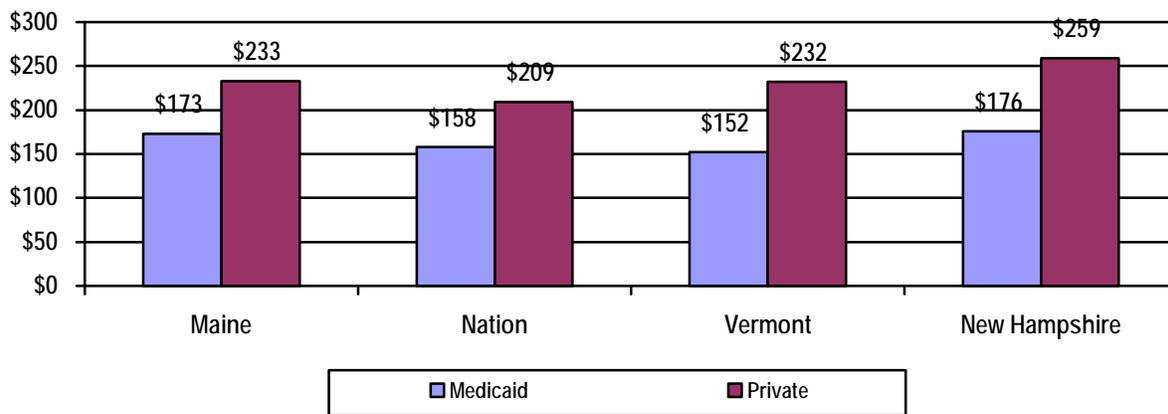
Due to the special care needs of their residents, these facilities' rates are significantly higher than the average nursing facility rate. There are a very limited number of these special facilities.

¹² For complete review of the study see: http://www.cms.hhs.gov/snfpps/10_TimeStudy.asp

Maine Nursing Facility Rates Compared to Other States

In 2007, AARP ranked MaineCare nursing home per diem rates 13th relative to other state Medicaid programs. The MaineCare average per diem was \$173 compared to a national average of \$158. MaineCare was higher than Vermont (\$152) and slightly lower than the New Hampshire (\$176). AARP also posted comparison of states' 2008 private pay rates. Maine's private pay rate in 2008 was ranked 11th nationally at \$233. Vermont (\$232) had a comparable private pay rate, while New Hampshire, ranked 7th was significantly higher at \$259. MaineCare's recent rebasing should continue to keep Medicaid rates higher than many other states' Medicaid programs.

Figure 1: Comparison of Average Medicaid (2007) and Private Pay Rates (2008) for Nursing Homes¹³



Several states have developed mechanism to increase reimbursement for special populations, particularly for conditions associated with problem behaviors. Similar to Maine, defining special units with contracted rates is one approach that has been used in Nebraska for head injury units and young people with mental illness. Colorado has an add-on to the per diem rates for mental illness (Level II Passar) residents and facilities with very high proportions of dementia residents receive extra funding. Funding to provide additional reimbursement for these options would be limited in the current budgetary climate or require re-directing funds from other sources.

Billing Changes Related to MHIMS Implementation

Currently, facilities have a prospective rate adjusted for the facility's average case mix. The case mix adjustment occurs on a quarterly basis. The facility is issued a new rate every quarter. A facility average case mix index is calculated based on all MaineCare residents in the facility on a certain day and applied to the direct care rate. The Office of MaineCare services is implementing a new Medicaid claims processing system, MaineCare Health Information Management System (MHIMS). With MHIMS implementation, the

¹³ Across the States 2009: Profiles of Long-Term Care and Independent Living, Ari N. Houser, Wendy Fox-Grage and Mary Jo Gibson, AARP Public Policy Institute, March 2009. http://www.aarp.org/research/ppi/ltc/Other/articles/across_the_states_2009_profiles_of_long-term_care_and_independent_living.html

quarterly case mix adjustment of the nursing facility's direct care component will be replaced by a resident specific adjustment. The final allowable rate under this new method will consist of two elements:

- 1.) A case mix adjusted Direct Care Rate; and
- 2.) A non-case mix adjusted rate that includes the Direct Care Add-on, Routine and Fixed rates.

The case mix adjusted direct care rate will be based on the RUG III group established by the resident's "active assessment" and the facility's allowable direct care rate. Additionally, the facility will receive a non-case mix adjusted rate that consists of allowable routine and fixed costs plus a direct care add-on. This change will more directly associate the MaineCare payment with the resident's care needs. A complaint of the MaineCare Case Mix methodology has been the lag between the resident's care needs and payment. The resident's active MDS assessment will now directly relate to MaineCare reimbursement.

Case Mix Residential Care Facilities

Building on the case mix methodology used in the nursing facilities, Maine developed a case mix reimbursement system for residential care facilities that care for the elderly (MaineCare Benefits Manual, Section 97, Appendix C). The case mix per diem rate consists of the private non-medical care (PNMI) component and personal care component that are reimburse by MaineCare. In addition, the rate has a room and board component that is paid with state dollars.

The PNMI component consists of a direct care portion and a program allowance. The direct care portion is case mix adjusted. Similar to the nursing home RUG-III model, Maine conducted a time-study and developed a resource based resident classification, Maine Residential Care Classification Groups (see appendix B for a description of the model). The RCF reimbursement model is based on a pricing methodology for direct care costs. Four peer groups were established, Alzheimer's and three groups based on bed size (1-15) Freestanding, Small (25 or less) and Large (more than 25). A direct care price (DCP) and program allowance (PA) was established based on 1998 base year costs. Table 9 shows the direct care price established on 1998 cost data and inflated to June 30, 2001 for each group.

Table 2: MaineCare Residential Care Peer Group Pricing – Based on Fiscal Year 1998 Costs Inflated to June 30, 2001

Peer Group	Direct Care Price (DCP)	Program Allowance (PA)
Alzheimer's	\$36.17	\$12.66
Large (More than 25 beds)	\$32.92	\$11.52
Small (25 or less beds)	\$33.83	\$12.66
1-15 Free standing	\$36.23	\$12.68

To calculate the final payment rate for a facility the DCP is multiplied by the MaineCare facility average weight and inflated to the current time period.¹⁴ The PA is inflated and added to that amount for a final PNMI rate. There is no cost settlement for this component.

The personal care (PCS) component is based on the facility's base year 1998 costs and inflated to the current time period. In addition to this amount, the facility receives a room and board fee that is reimbursed with state funds. The room and board fee consists of routine costs inflated to the current time period and a fixed costs component. Like nursing facilities, the fixed costs are based on the most recent audited costs and are treated as a pass through.

As of January 2010 the average rates for Maine residential care facilities is shown in table 3. The Alzheimer facilities have the highest rate at \$124.49 per day. The range in payment across all facilities is from a low of \$70.82 to a high of \$161.41. Both the direct care (ranges from \$53.35 to \$111.86) and room and board (ranges from \$3.54 to \$54.79) contributes to the wide range in these rates.

Table 3: MaineCare Residential Care Peer Group Average Daily Rates, January 2010

Peer Group	Facilities	PNMI	PCS	Room & Board	Total
Alzheimer's	30	\$84.75	\$12.32	\$27.43	\$124.49
Large (More than 25 beds)	64	\$65.26	\$9.48	\$20.86	\$95.60
Small (25 or less beds)	35	\$67.87	\$10.81	\$16.49	\$95.17
1-15 Free standing beds	9	\$77.71	\$6.52	\$22.03	\$106.26

Maine Residential Care Resource Utilization Groups

Maine developed its own classification for residential care facilities, building on the experience of the nursing facility classification system. Working with a committed group of residential care providers an MDS-like assessment (MDS-RCA) was designed for facilities to use in resident assessment and service planning. Two time studies including reliability tests of the MDS form were conducted to develop Maine specific resource utilization groups. Information from the MDS-RCA is used to

¹⁴ The last inflation was applied 7/1/2007. Since that time there has not been a cost of living adjustment to the rates. Various one-time adjustments have also been applied to the rate.

classify residents into a series of mutually exclusive groups representing the residents' relative direct care resource requirements.

Like the nursing facility MDS, the MDS-RCA contains information on the resident's nursing needs, ADL impairments, cognitive status, behavioral problems, and medical diagnoses. This information is used to define RCF subgroups. Problem behaviors are not used in the classification model, although Cognitive Impairment and Behavioral Health, conditions associated with problem behaviors, are included. A description of the model is included in Appendix B.

The RCF groups are organized in a hierarchy, ranging from highest amount of resident care time needed to the least amount. Residents with cognitive impairment, more specialized nursing requirements, behavioral health needs and greater ADL dependency are assigned to groups higher in the RCF hierarchy. Residents who have only routine nursing needs, who are relatively independent in ADL function fall in the lower groups.

Problem Behaviors in Case Mix Residential Facilities

Like the nursing facilities, over 40% of residents in the case mix residential care facilities have exhibited a problem behavior in the last 7 days. Over 50% of the residents with problem behaviors classify into the Behavioral Health group. However, 27% classify into groups with RUG weights less than 1.000. As shown in Table 4, the majority of resident with problem behaviors reside in larger facilities (25 or more beds).

The MDS-RCA has a broader list of problem behaviors than the nursing home MDS, however resists care (784 residents), wandering (749 residents) and socially inappropriate behavior (742 residents) are still the most prevalent.

Table 4: Residential Care Residents with Behavior Problems by Peer Groups

Peer Group	Residents with Behavior Problems	Percent Residents with Behavior Problems
1-15 Free Standing	40	2.51%
Small (1-24)	232	14.55%
Large (25+)	861	54.02%
Alzheimer's	461	28.92%
Total	1594	100.00%

Maine Residential Care Rates Compared to Other States

Maine's case mix residential care facilities are uniquely reimbursed in comparison to other states' Medicaid programs. These facilities are part of the state plan with the room and board reimburse with state dollars. Only six other states include residential facilities for the elderly in

their state plan services. Most states reimburse residential care under their waivers (29 states) or a combination of waiver and state plan (6 states) that require nursing facility level of care. Four other states have a case mix type reimbursement methodology. Valid comparisons of per diem rates for these facilities to other states were not identified.

Table 4: Maine Case Mix Residential Care Facility Residents with Behavior Symptoms Exhibited in the last 7 days
Most Recent MDS Assessment as of 9/15/2009

RCF Group	Weight ¹⁵	Wandering	Verbally Abusive	Physically Abusive	Socially Inappropriate	Resists Care	Intimidating behavior	Elopement	Dangerous Non-violent	Dangerous Violent	Fire Setting	Any Behavior	Percent Any Behavior
IMPAIRED (15-28) ¹⁶	2.25	67	24	15	37	49	15	4	2	0	0	96	6.0%
IMPAIRED (12-14)	1.568	23	6	1	10	10	3	1	1	0	0	29	1.8%
IMPAIRED (0-11)	1.144	15	2	2	5	11	0	0	1	0	0	20	1.3%
COMPLEX (12+)	1.944	28	21	2	35	45	13	1	2	2	0	72	4.5%
COMPLEX (7-11)	1.593	46	32	6	53	42	16	1	4	3	0	101	6.3%
COMPLEX (2-6)	1.205	20	9	4	25	35	8	2	3	1	1	61	3.8%
COMPLEX (0-1)	0.938	0	2	0	4	14	1	0	0	0	0	20	1.3%
BEHAVIORAL HEALTH (16+)	1.916	42	29	13	50	48	17	3	3	2	0	85	5.3%
BEHAVIORAL HEALTH (5-15)	1.377	227	95	13	198	199	78	5	16	2	0	415	26.0%
BEHAVIORAL HEALTH (0-4)	0.98	104	88	11	184	139	56	6	14	2	0	323	20.3%
PHYSICAL (11+)	1.418	125	48	9	94	86	35	1	6	1	0	195	12.2%
PHYSICAL (8-10)	1.019	7	3	0	4	16	0	0	1	0	0	25	1.6%
PHYSICAL (4-7)	1.004	27	16	0	23	33	2	1	4	0	0	66	4.1%
PHYSICAL (0-3)	0.731	18	8	2	20	57	5	0	1	0	0	86	5.4%
Total with Problem Behavior		749	383	78	742	784	249	25	58	13	1	1,594	100.0%
No Behavior												2,296	
Total Residents												3,890	

¹⁵ The weight is the relative costliness based on resource use for residents in this group compared to the average resident in residential care.

¹⁶ The activity of daily living (ADL) score is shown in parenthesis. This score ranges from 0 independent in ADLs to 28 fully dependent in ADL self performance. ADL considered in the score are bed mobility, transfer, locomotion, dressing, eating grooming, personal hygiene and toilet use.

Appendix A: Maine Nursing Facility Resource Utilization Groups

RUG-III Model Version 5.12

CATEGORY	ADL INDEX	END SPLITS	RUG III CODES	WEIGHT
REHABILITATION				
ULTRA HIGH Rx 720 minutes a week minimum At least 2 disciplines, 1 st - 5 days, 2 nd - at least 3 days	16-18 9-15 4-8	NOT USED NOT USED NOT USED	RUC RUB RUA	1.986 1.426 1.165
VERY HIGH Rx 500 minutes a week minimum At least 1 discipline - 5 days	16-18 9-15 4-8	NOT USED NOT USED NOT USED	RVC RVB RVA	1.756 1.562 1.217
HIGH Rx 325 minutes a week minimum 1 discipline 5 days a week	13-18 8-12 4-7	NOT USED NOT USED NOT USED	RHC RHB RHA	1.897 1.559 1.260
MEDIUM Rx 150 minutes a week minimum 5 days across 1, 2 or 3 disciplines	15-18 8-14 4-7	NOT USED NOT USED NOT USED	RMC RMB RMA	2.051 1.635 1.411
LOW Rx 3 days/45 minutes a week minimum Nrsrg. Rehab 6 days in at least 2 activities and rehabilitation therapy	14-18 4-13	NOT USED NOT USED	RLB RLA	1.829 1.256
EXTENSIVE SERVICES – (if ADL < 7, beneficiary classifies to Special Care) IV feeding in the past 7 days (K5a) IV medications in the past 14 days (Plac) Suctioning in the past 14 days (Plai) Tracheostomy care in the last 14 days (Plaj) Ventilator/respirator in the last 14 days (Plal) MAINE EXTENSIVE REFINEMENT Traumatic Brain Injury (I1cc=1)	7-18 7-18 7-18 15-18 10-14 7-9	New grouping: count of other categories code into plus IV Meds – Feed NOT USED NOT USED NOT USED	SE3 SE2 SE1 SE3 SE2 SE1	2.484 2.057 1.910 2.484 2.057 1.910
SPECIAL CARE – (if ADL , 7 beneficiary classifies to Clinically Complex) Multiple Sclerosis (I1w) and an ADL score of 10 or higher Quadriplegia (I1z) and ADL score of 10 or higher Cerebral Palsy (I1s) and an ADL score of 10 or higher Respiratory therapy (P1bdA must = 7 days) Ulcers, pressure OR stasis; 2 or more of any stage (M1a,b,c,d) <u>and</u> 2 or more treatments (M5a,b,c,d,e,g,h) Ulcers, pressure; any stage 3 or 4 (M2a) <u>and</u> 2 or more treatment (M5a,b,c,d,e,g,h) Radiation therapy (Plah) Surgical Wounds (M4g) <u>and</u> treatment (M5f,g,h) Open Lesions (M4c) <u>and</u> treatment (M5f,g,h) Tube Fed (K5b) <u>and</u> Aphasia (I1r) <u>and</u> feeding accounts for at least 51 percent of daily calories (K6a = 3, 4) OR [at least 26 percent of daily calories (K6a=2) and 501cc daily intake (K6b = 2,3,4 or 5)] Fever (J1h) with Dehydration (J1c), Pneumonia (I2e), Vomiting (J1o) or Weight loss (K3a) Fever (J1h) with tube Feeding (K5b) <u>and</u> feeding accounts for at least 51 percent of daily calories (K6a = 3, 4) OR [at least 26 percent of daily calories (K6a=2) and 501cc daily intake (K6b = 2,3,4 or 5)] Extensive with ADL < 7	17-18 15-16 4-14	NOT USED NOT USED NOT USED	SSC SSB SSA	1.841 1.709 1.511
CLINICALLY COMPLEX – Burns (M4b) Coma (B1 <u>and</u> not awake (N1 = d) <u>and</u> completely ADL dependent (G1aa, G1ba, G1ha, G1ia = 4 or 8) Septicemia (I2g) Pneumonia (I2e) Foot/Wounds (M6b,c) <u>and</u> treatment (M6f)	17-18D 17-18 12-16D 12-16 4-11D 4-11	Signs of Depression Signs of Depression Signs of	CC2 CC1 CB2 CB1 CA2 CA1	1.826 1.663 1.503 1.389 1.331 1.149

Appendix A: Maine Nursing Facility Resource Utilization Groups

RUG-III Model Version 5.12

CATEGORY	ADL INDEX	END SPLITS	RUG III CODES	WEIGHT
Internal Bleed (Jlj) Dialysis (Plab) Tube Fed (K5b) <u>and</u> feeding accounts for at least 51 percent of daily calories (K6a = 3, 4) OR [at least 26 percent of daily calories (K6a=2) and 501cc daily intake (K6b = 2,3,4 or 5)] Dehydration (Jlc) Oxygen therapy (Plag) Transfusions (Plak) Hemiplegia (Ilv) <u>and</u> an ADL score of 10 or higher Chemotherapy (Plaa) No. Of Days in last 14 there were Physician Visits and order changes: Visits >= 1 day and order changes >= 4 days; or visits >= 2 days and order changes on >= 2 days Diabetes mellitus (Ila) <u>and</u> injections on 7 days (O3 >=7) <u>and</u> order changes >= 2 days (P8 >= 2)		Depression		
IMPAIRED COGITION	6-10	Nursing Rehab*	IB2	1.199
Score on MDS2.0 Cognitive Performance Scale >= 3	6-10	not receiving	IB1	1.152
CPS score is calculated using Decision Making (B4), Making Self	4-5	Nursing Rehab	IA2	0.945
Understood (C4), Short Term Memory (B2a), Coma (B1) and Eating-self performance (Glh)	4-5	not receiving	IA1	0.888
BEHAVIOR ONLY	6-10	Nursing Rehab*	BB2	1.180
Coded on MDS 2.0 items:	6-10	not receiving	BB1	
4+ days a week – wandering, physical or verbal abuse, inappropriate behavior	4-5	Nursing Rehab	BA2	1.123
or resists care, or hallucinations (Jli) or delusions (Jle) checked	4-5	not receiving	BA1	0.905
				0.759
PHYSICAL FUNCTION REDUCED	16-18	Nursing Rehab*	PE2	1.454
No Clinical conditions used	16-18	not receiving	PE1	1.421
	11-15	Nursing Rehab*	PD2	1.323
	11-15	not receiving	PD1	1.281
	9-10	Nursing Rehab*	PC2	1.219
	9-10	not receiving	PC1	1.088
	6-8	Nursing Rehab*	PB2	0.833
	6-8	not receiving	PB1	0.854
	4-5	Nursing Rehab*	PA2	0.776
	4-5	not receiving	PA1	0.749

*To qualify as receiving Nursing Rehabilitation, the rehabilitation must be in at least 2 activities, at least 6 days a week. As defined in the Long Term Care RAI User's Manual, Version 2 activities include: Passive or Active ROM, amputation care, splint or brace assistance and care, training in dressing or grooming, eating or swallowing, transfer, bed mobility or walking, communication, scheduled toileting program or bladder retraining.

Appendix B: Maine Residential Care Resource Utilization Groups

Group	ADL Splits	MDS-RCA Item
Impaired Cognition	0-11; 12-14; 15-28	Severely Impaired Decision Making [B3=3]
Clinically Complex	0-1; 2-6; 7-11; 12-28	<p>Any of the following conditions:</p> <ul style="list-style-type: none"> • Ulcers due to any cause ([M2a,b,c, or d >0]) • Quadriplegia [I1z=checked] • Burns [M1b=checked] • MS [I1w=checked] • Radiation/ Chemotherapy [P1aa=checked] • Hemiplegia/hemiparesis [I1v=checked] • 4 or more physician order changes [P10>=4] • Aphasia [I1r=checked] • Explicit Terminal Prognosis [I1ww=checked] • Monitoring for Acute Conditions [P3a=1or P3a=2 or P3a=3 or P3b=1 or P3b=2 or P3b=3] • Oxygen [P1ab=checked] • RT 5 or more days a week [P1bda >= 5] • CP [I1s] • Diabetics receiving daily injections [I1a=1 and O4ag=7]
Behavioral Health	0-4; 5-15; 16-28	<p>Two or more indicators of depression, anxiety or sad mood [count of the number of items E1a-E1r exhibited at all (>0)]</p> <p>OR</p> <p>Three or more interventions or programs for mood, behavior, or cognitive loss [three or more items in P2a-P2j checked]</p> <p>OR</p> <p>Delusions (J1e) or Hallucinations (J1f)</p>
Physical	0-3; 4-7; 8-10; 11-28	
Not Classifiable		MDS-RCA Assessment RUG items contain invalid or missing data.