Characteristics of the 2008 Rhode Island Medicaid Population in Nursing Homes

DRAFT

Prepared for the RI Medicaid Program's
Real Choice System Transformation Project

by

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OBJECTIVES

The purpose of this report is to provide baseline information to measure change in the acuity of RI nursing home residents covered by Medicaid attributable to system transformation efforts. A second objective is to inform system change efforts to ensure the provision of the right service to the right people at the right time.

OVERVIEW

- **In Section I of this presentation we provide a picture of the long stay Medicaid nursing home population in 2008, in terms of cognitive and physical health status as well as need for assistance with Activities of Daily Living. 2008 is thus the "baseline" from which we will measure change in acuity to determine the impact of two years of system change in 2010.**

- **In Section II we identify differences in the characteristics of nursing home residents who are new admits in 2008 and who remain in the nursing home at least 90 days post admission. We compare these new admit "long stay" residents with residents who are discharged prior to 90 days.**

- **Section III compares the characteristics of the overall "low care" long-stay nursing home population with the non-low care population to facilitate the identification of sub-groups who may be able to transfer to the community with appropriate supports, for targeting and monitoring.**

- **In Section IV we present information on residents who are discharged and then readmitted at least once in 2008, including time between discharge and readmission as a function of discharge destination.**

DATA SOURCES

Data for this report were derived from a merge of two data files.

- **The first is the 2008 Rhode Island Minimum Data Set Nursing Home Assessment.**
- **The second data file is a Medicaid claims file of all persons covered by Medicaid for whom at least one nursing home claim was submitted in 2008. All nursing home claims for the period 7/01/07 through 6/30/09 are contained in this file.**

- **To merge these files, the last four digits of the SSN, date of birth and gender of Medicaid recipients with a nursing home claim were used to match to Brown's person identification data in the national MDS repository database spanning the calendar years 1999-2008.**
- **A total of 93% persons (N=10,088) in the RI Medicaid NH claims were identified. Of those successfully matched, N=1,175 had all their NH Medicaid claims and MDS records in 2007 or in 2009, none in 2008, and were not used in our analysis. The final cohort of persons with an MDS record in 2008 was N=8,913.**

DEFINITIONS: Admission Cohorts

- **New Admits are defined as persons with an admission in 2008 which was their first NH admission (based on a three year lookback), OR who had been discharged prior to 1/1/08, and had a new admission in 2008. A total of 2,159 (24.2%) persons out of the total of 8,913 2008 NH residents were admitted after 1/1/08. The remaining 6,754 residents (75.8% of total) were admitted to a nursing home Prior to 1/1/08, and continued their stay into the 2008 calendar year.**

- **Admitted with SNF is defined as New Admits with Medicare SNF benefit following a hospitalization, determined by whether they had any MDS required by Medicare for SNF payment (Medicare 5 day assessment, Medicare 14 day assessment, Medicare 30 day assessment, Medicare 60 day assessment, Medicare 90 day assessment, Medicare readmission assessment). Among New Admits in 2008, 922 (42.7%) had a SNF MDS assessment.**

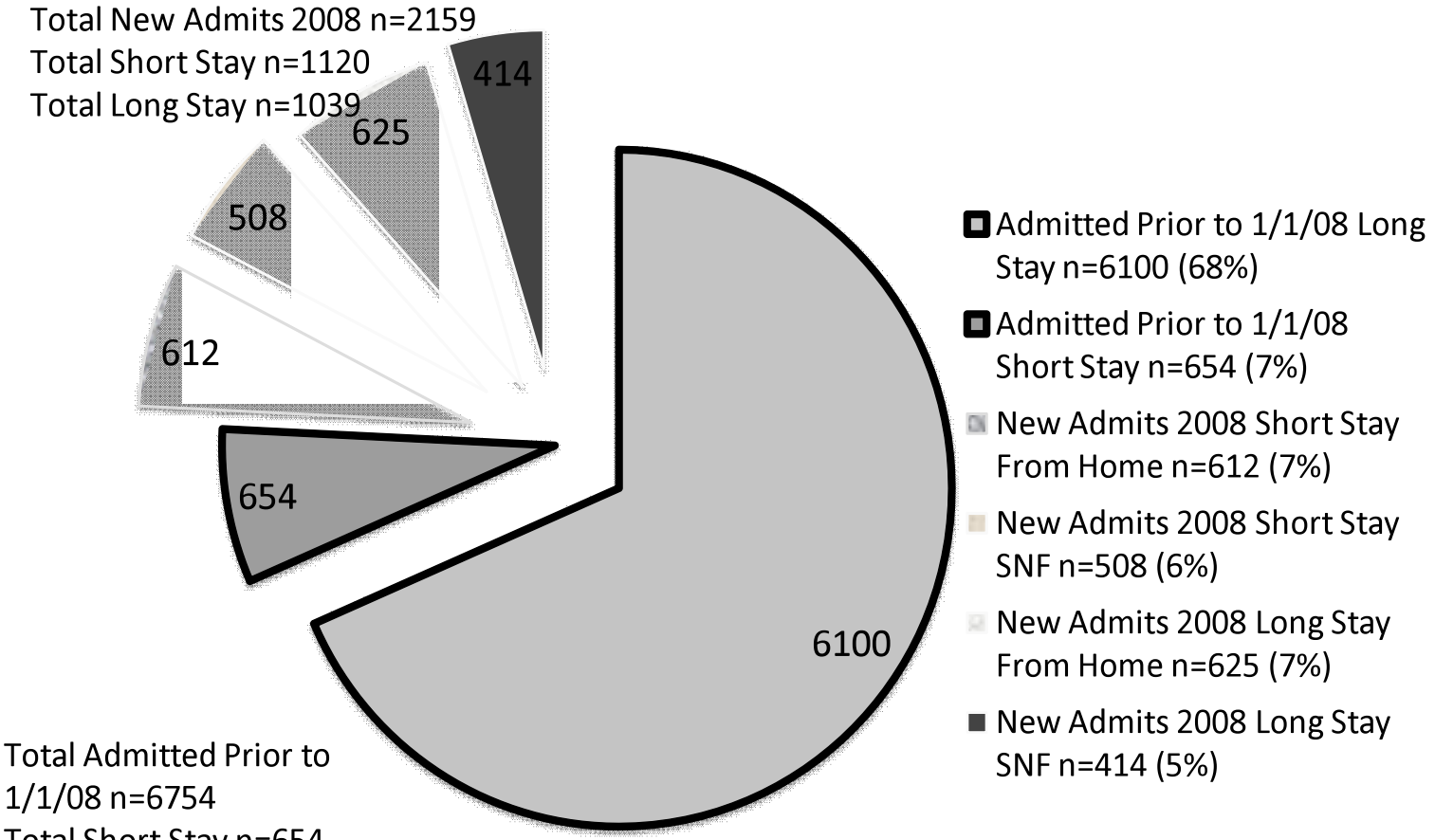
- **Admitted from Community is defined as the remaining New Admits in 2008, and are those residents without an MDS required by Medicare for SNF payment.**

DEFINITIONS: Long Stay/Low Care

- **Long Stay Residents are defined to be residents remaining in the nursing home long enough after admission to have a quarterly MDS assessment (90 days post admission or later). Among New Admits in 2008, 1,039 (48.1%) remained in the NH long enough to have a quarterly MDS assessment. Among those admitted before 2008, 6,100 (90.3%) had a quarterly MDS assessment in 2008.**
- **Short Stay Residents are defined to have stays less than 90 days, and thus have no quarterly MDS assessment.**
- **Low Care is defined according to two definitions used in Mor, Zinn, Gozalo et al. (2007, Health Affairs) based on ADL status and the RUG v5.12 casemix classification index comprising 44 resource utilization categories:**
  - **Low Care Broad Definition: Resident does not require assistance in any of the four" late-loss" ADLs—bed mobility, transferring, using the toilet, and eating—and is not classified in either the "Special Rehab" or "Clinically Complex" Resource Utilization Groups (RUG III).**
  - **Low Care Narrow Definition: Resident meets above criteria AND is classified in either of the lowest two of the 44 RUGs groups, i.e., requires the lowest possible amount of care.**

Figure 1:

Distribution of RI Nursing Home Residents with a Medicaid Nursing Home Claim in 2008 (N=8913)

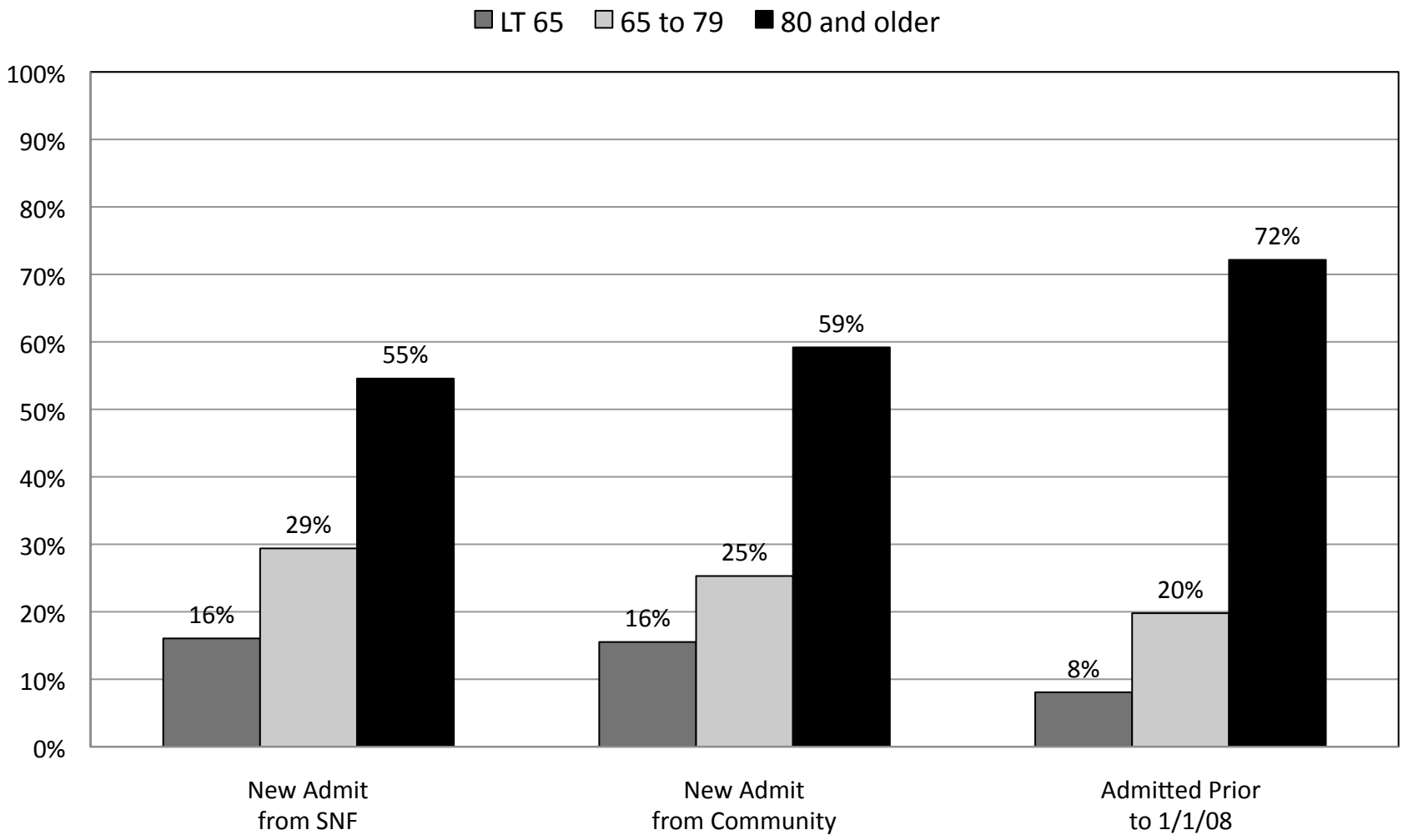


SECTION I:

Characteristics of 2008 RI Long Stay Nursing Home Population by 3 Admission Cohorts:

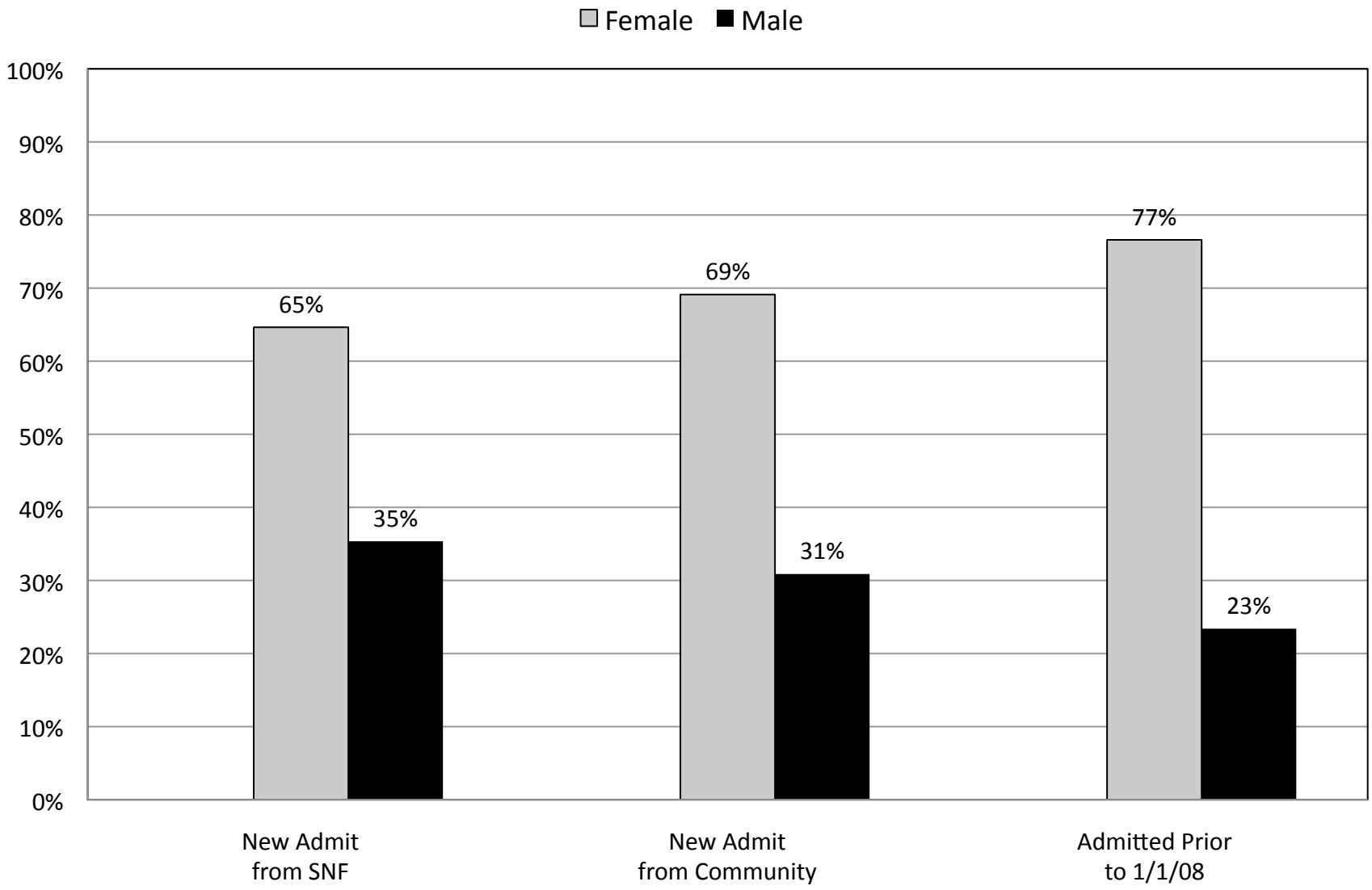
- 2008 New Admissions—With SNF (n = 414)
- 2008 New Admissions—From Community (n = 625)
- Admission Prior to 1/1/2008 (n = 6100)

Figure 1.1: Age Groups by Long Stay Admission Cohort



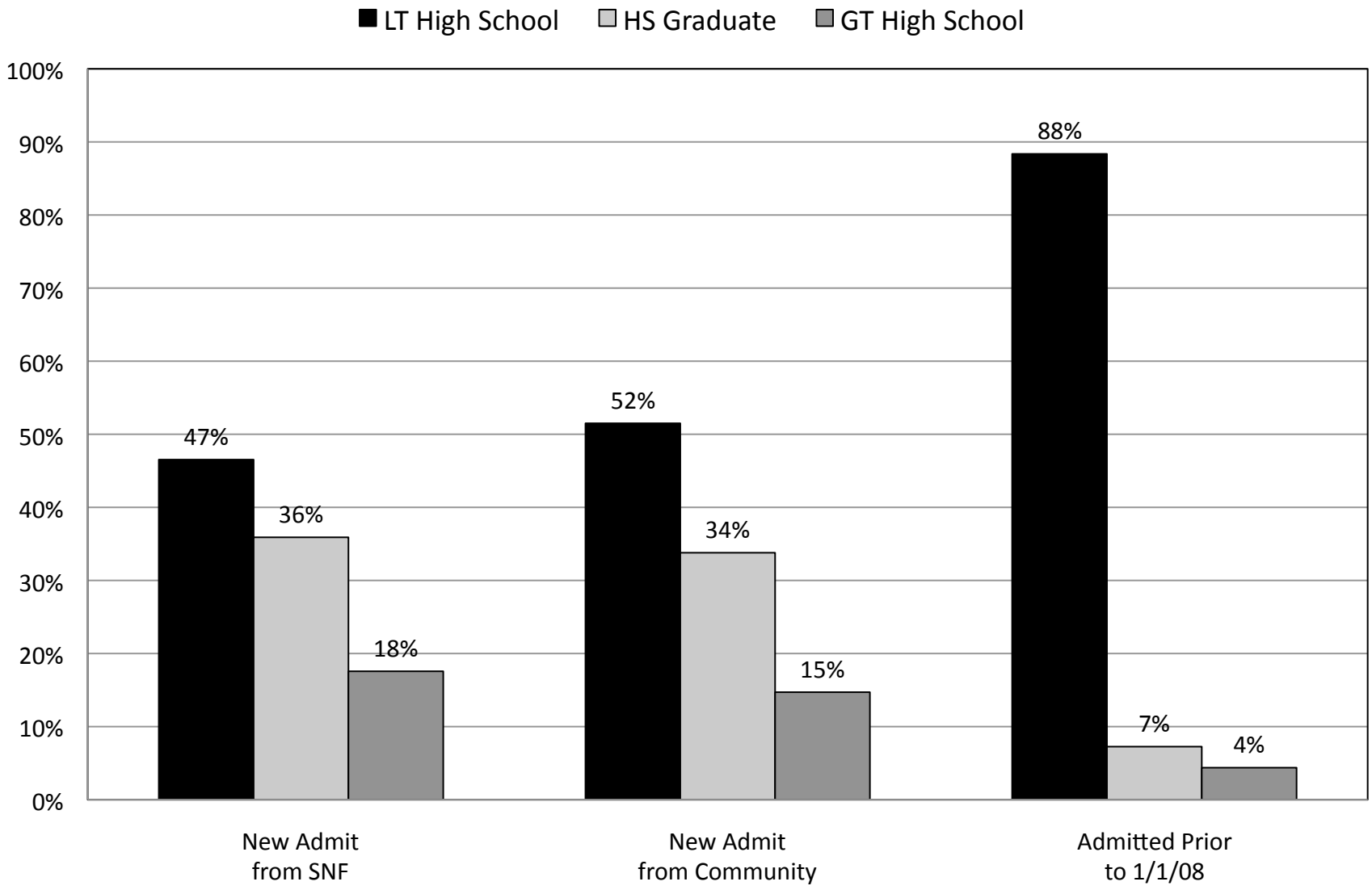
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.2: Gender by Long Stay Admission Cohort



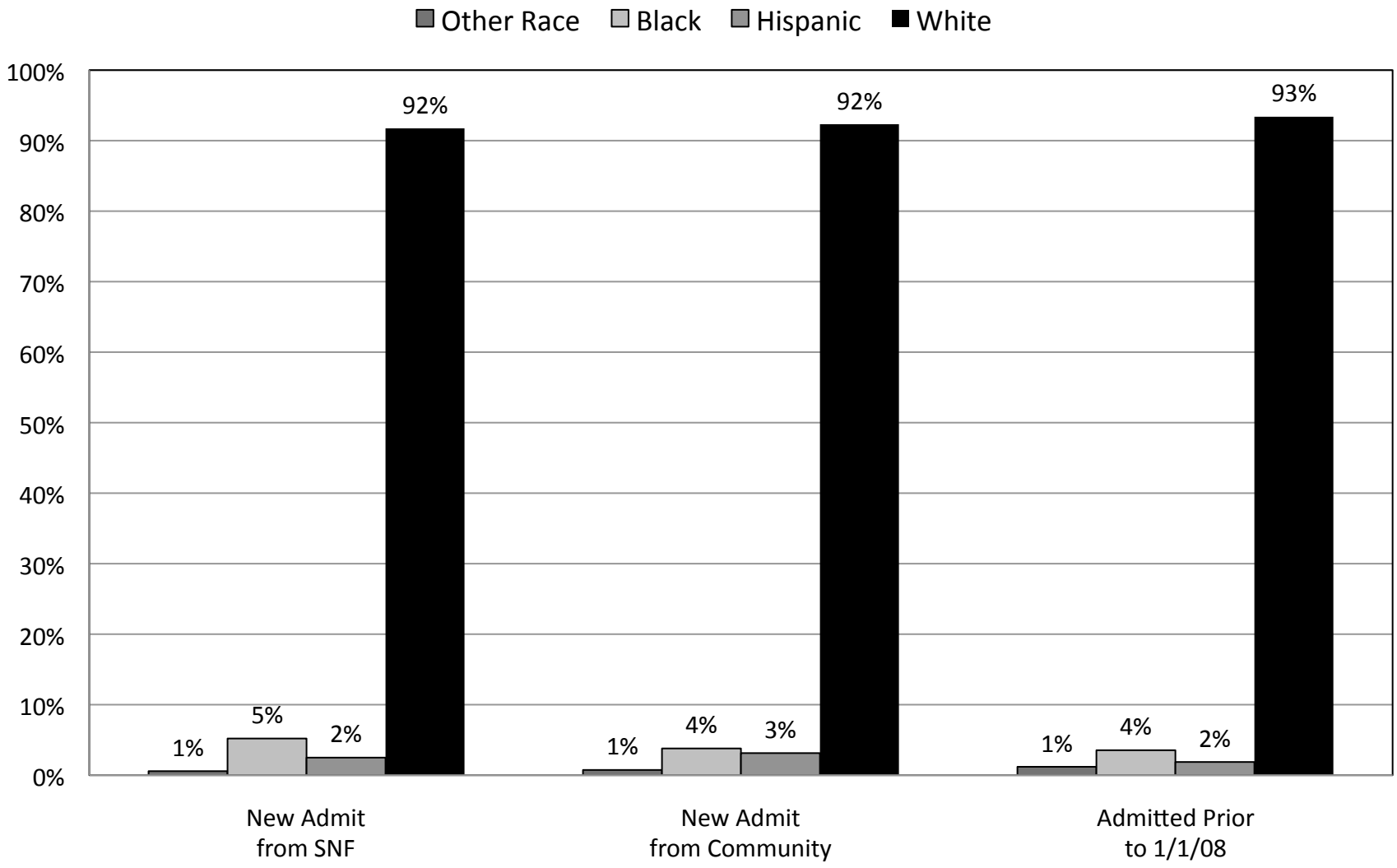
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.3: Education by Long Stay Admission Cohort



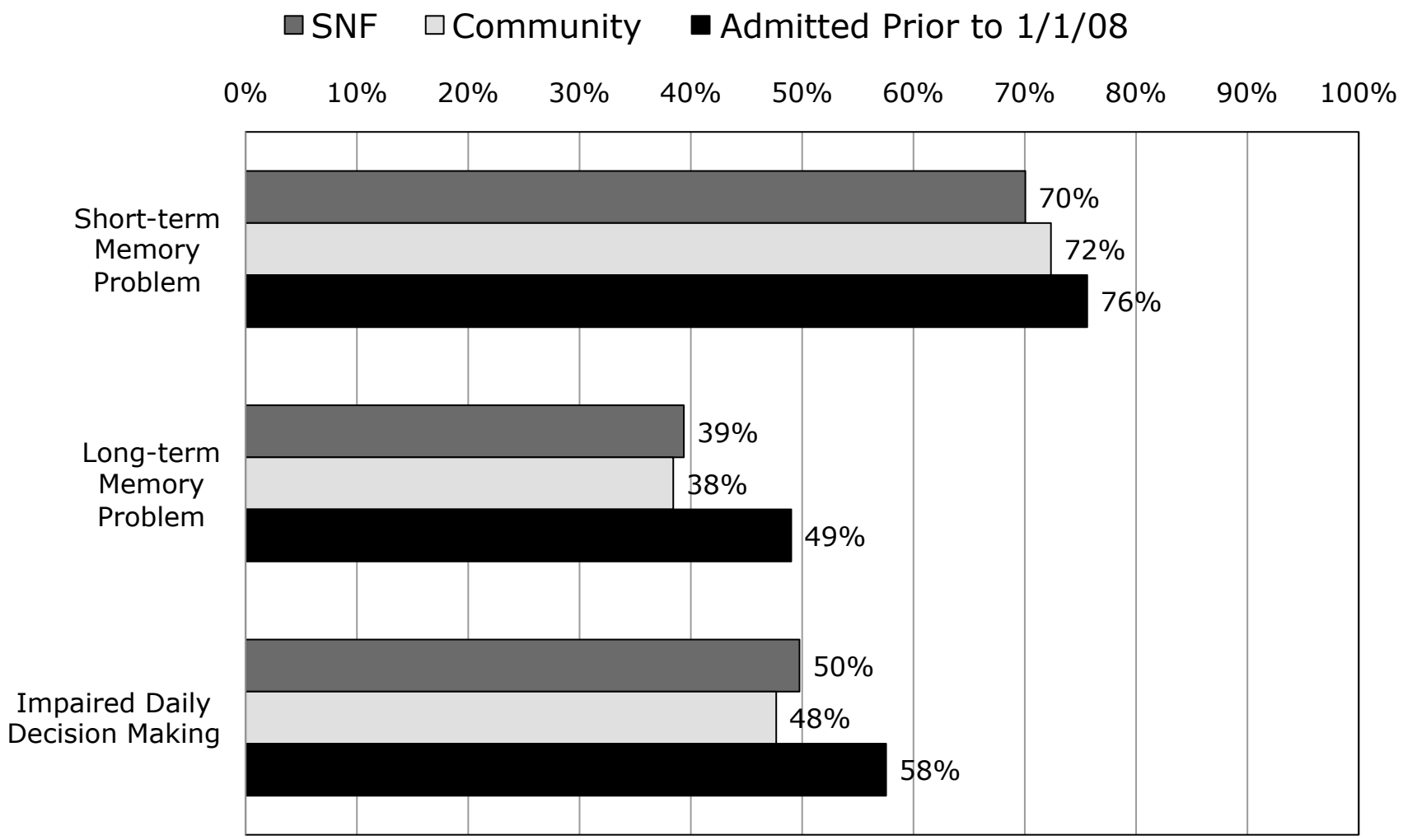
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.4: Race/Ethnicity by Long Stay Admission Cohort



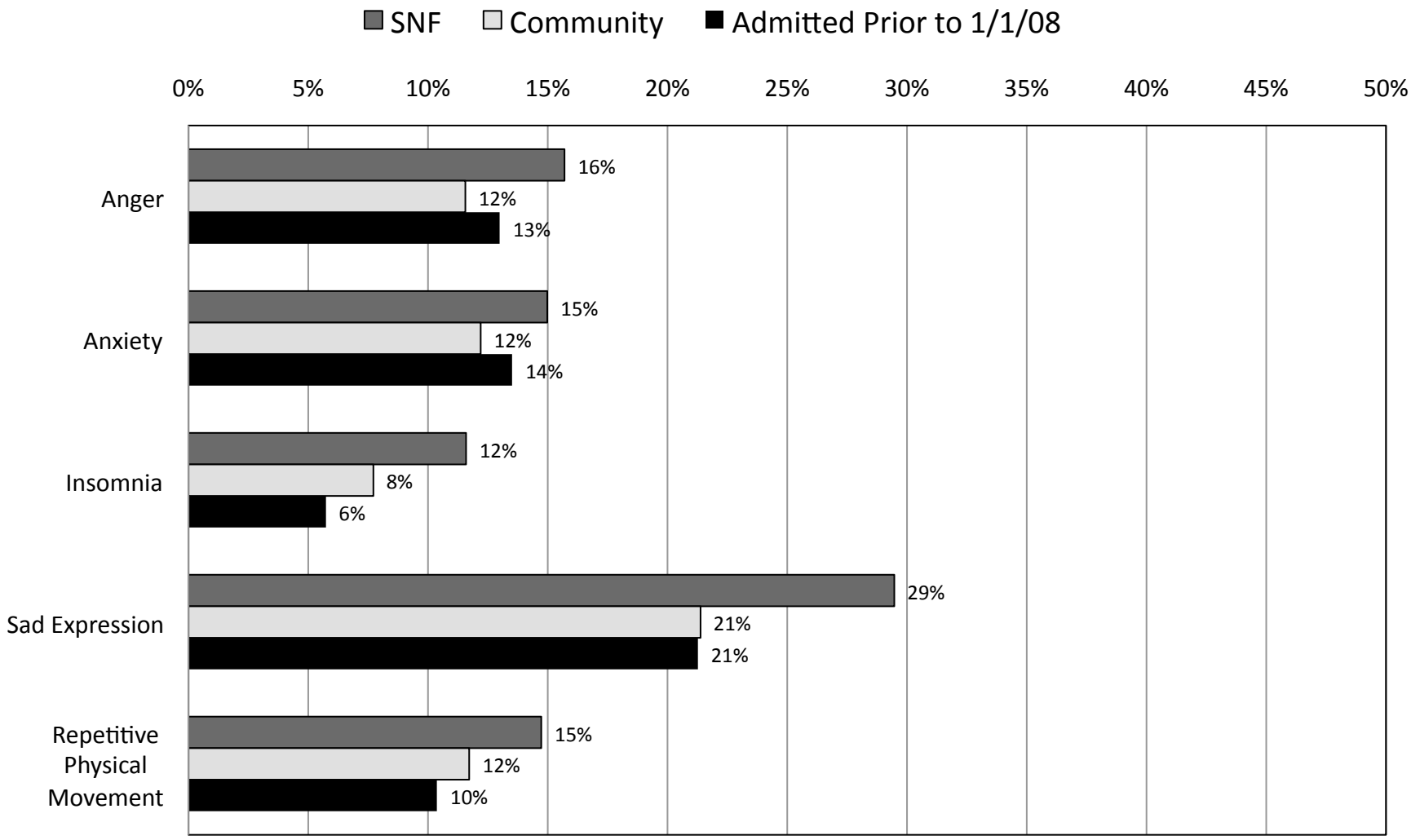
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.5: Cognitive Patterns by Long Stay Admission Cohort



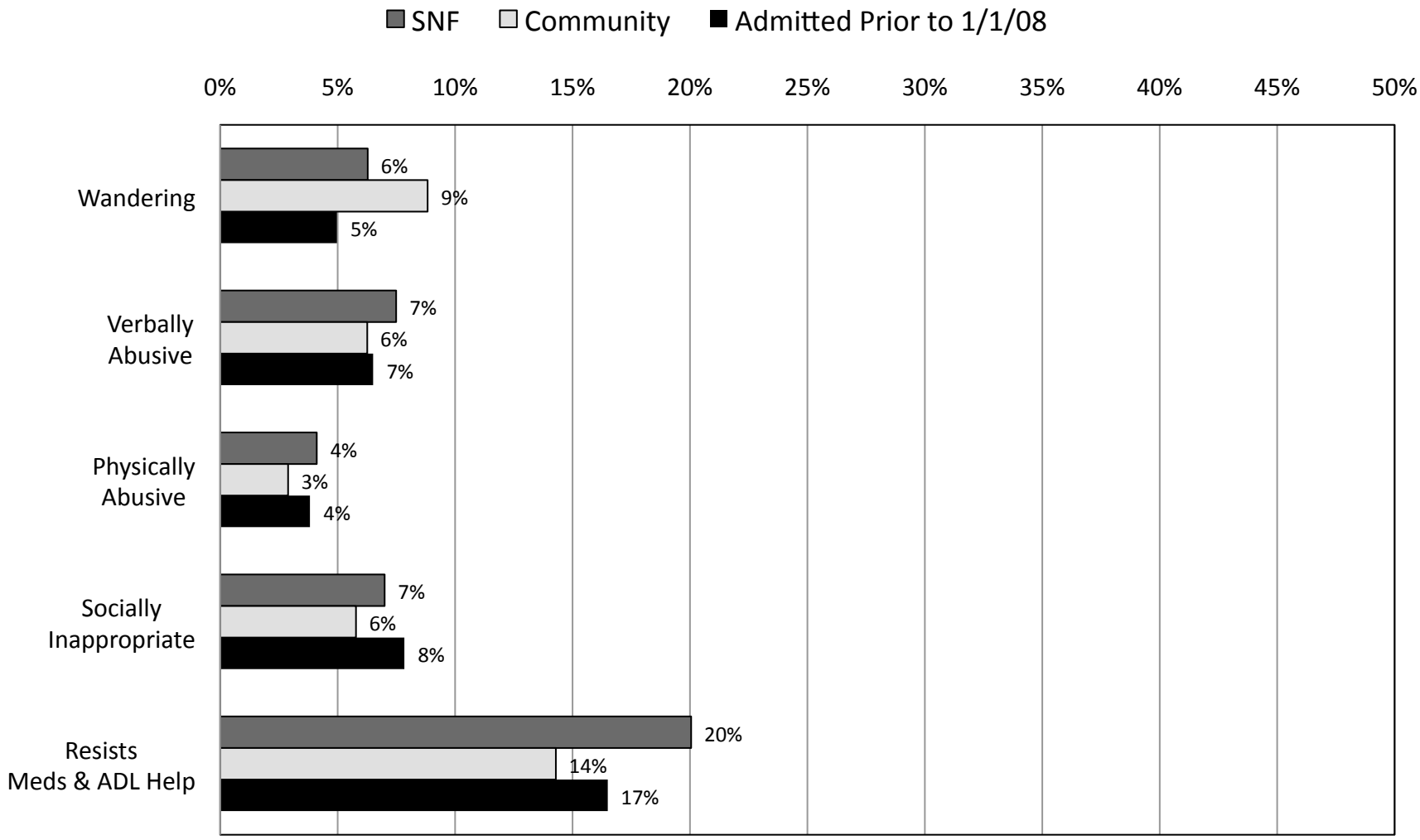
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.6: Mood Patterns by Long Stay Admission Cohort, Observed >= 5 Days/Week



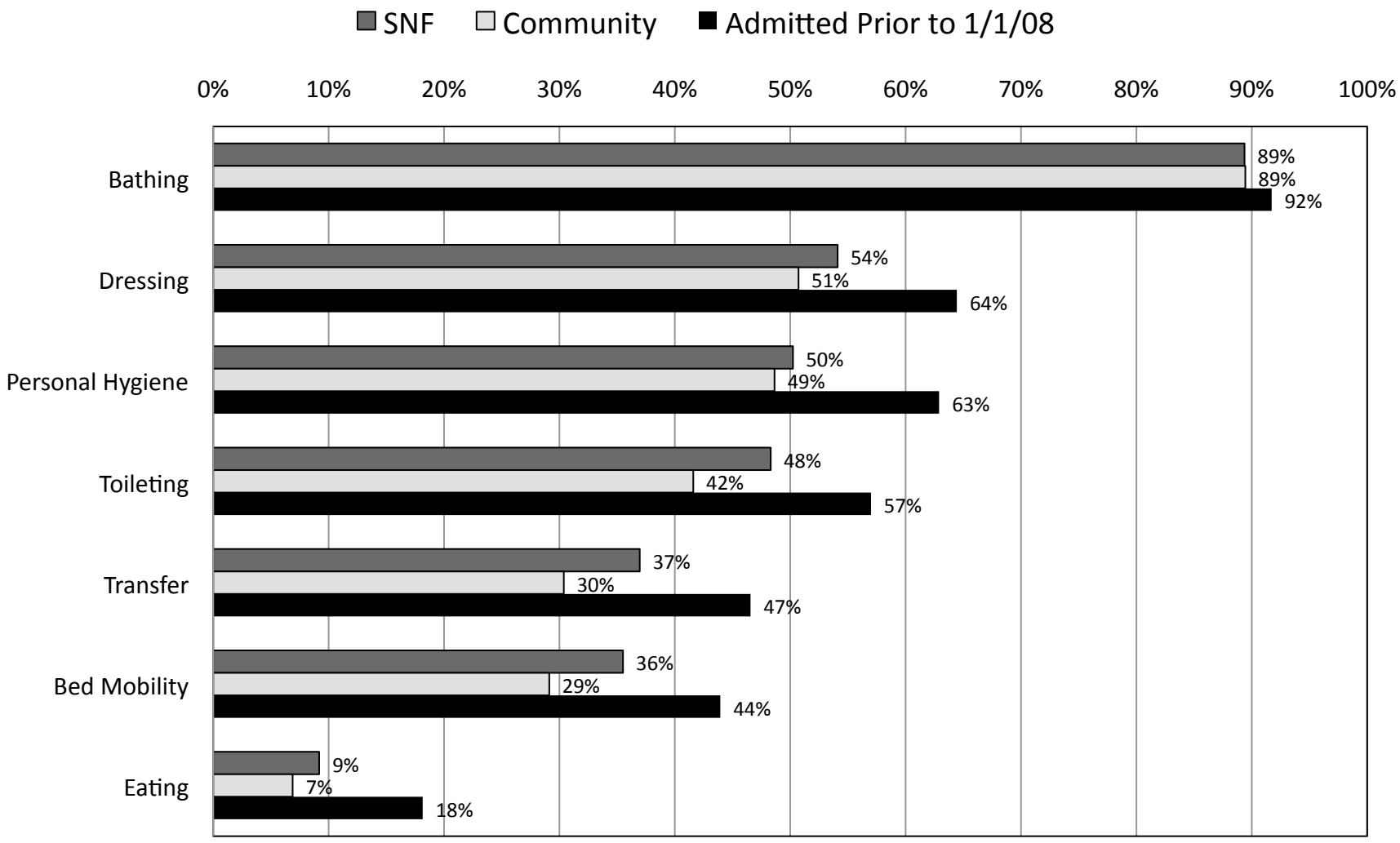
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.7: Behavior Patterns by Long Stay Admission Cohort, Observed >= 1 Time/Past 7 Days



Source: 1st Quarterly MDS Assessment, 2008

Figure 1.8: ADLs by Long Stay Admission Cohort: Need Extensive/Total Assistance in Past 7 Days



Source: 1st Quarterly MDS Assessment, 2008

Figure 1.9: Cognitive Performance Scale (0 to 6) by Long Stay Admission Cohort

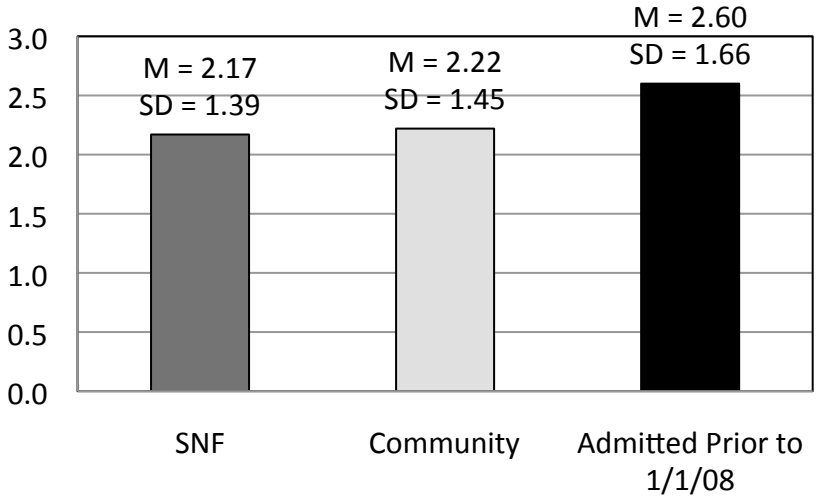
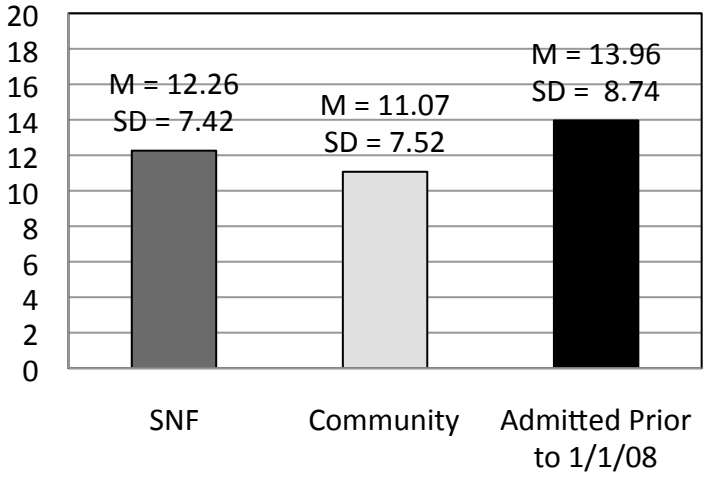
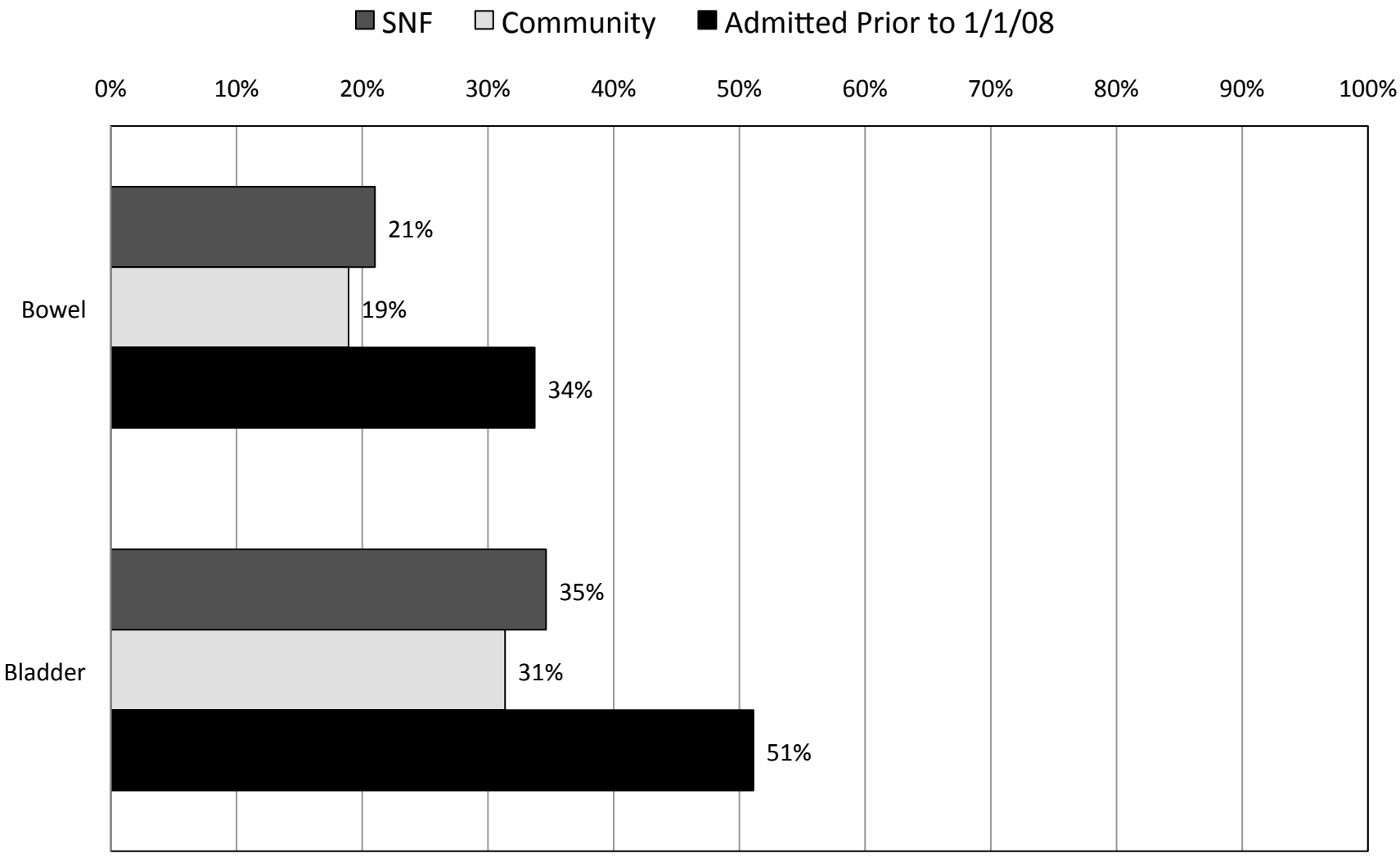


Figure 1.10: Morris ADL Scale (0 to 28) by Long Stay Admission Cohort



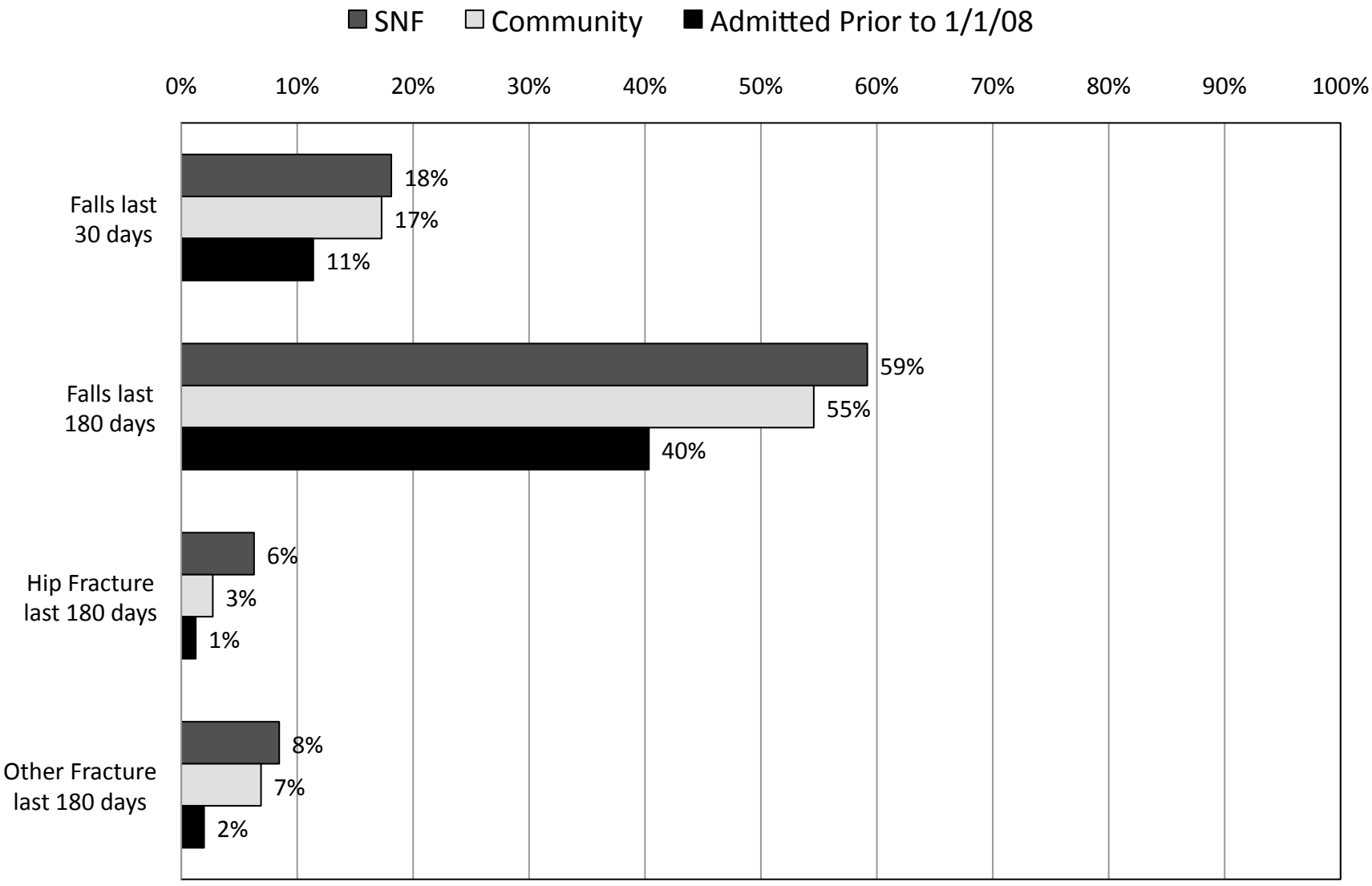
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.11: Frequently/Always Incontinent in Last 14 Days by Long Stay Admission Cohort



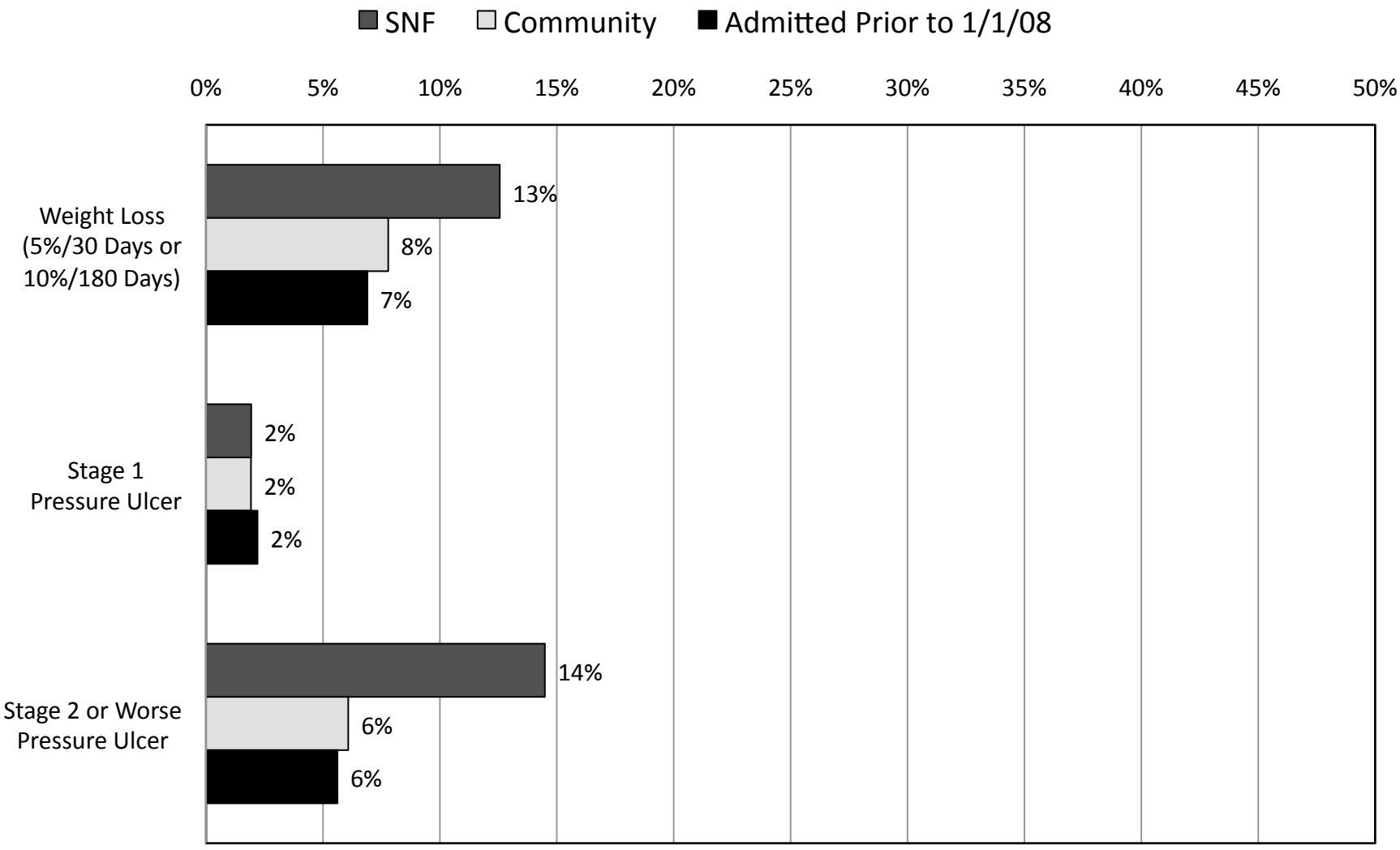
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.12: Falls/Fractures by Long Stay Admission Cohort



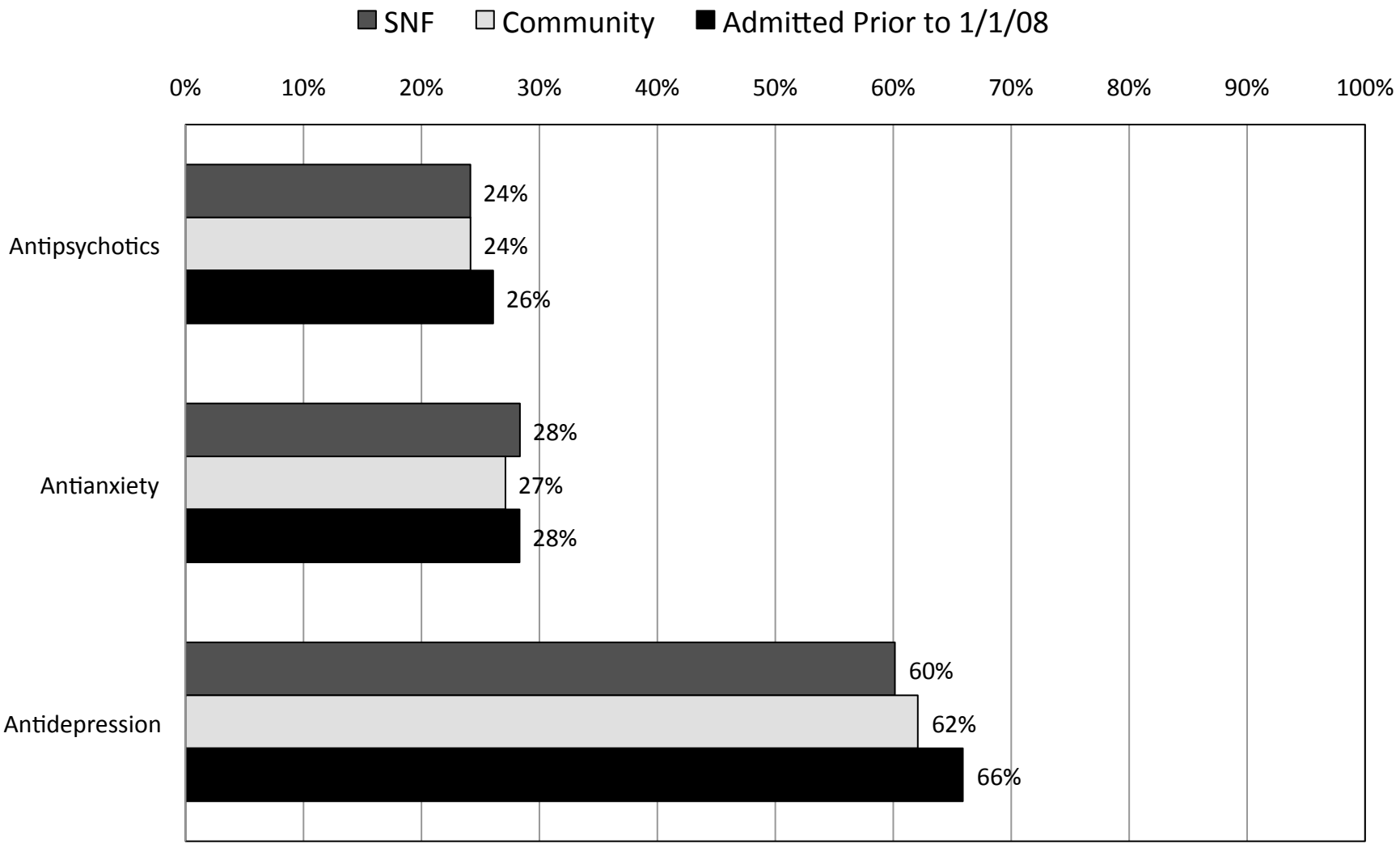
Source: 1st Quarterly MDS Assessment, 2008

Figure 1.13: Weight Loss and Pressure Ulcers by Long Stay Admission Cohort



Source: 1st Quarterly MDS Assessment, 2008

Figure 1.14: Received Psychotropic Medications in Last 7 Days by Long Stay Admission Cohort



Source: 1st Quarterly MDS Assessment, 2008

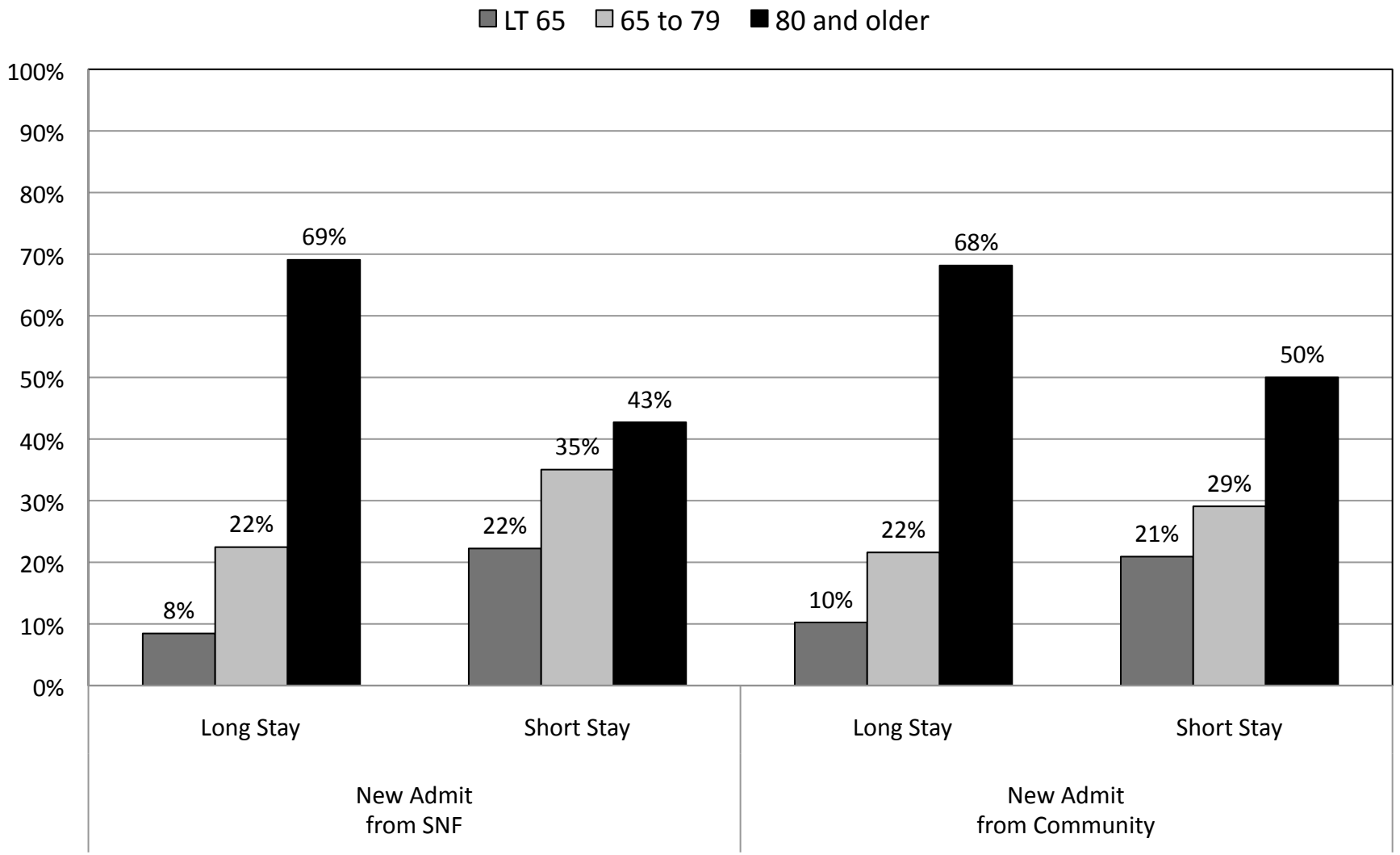
SECTION II:

2008 New Admissions: Comparing Long Stay (N = 1039) and Short Stay (N = 1120) Residents at Admission by Admission Cohort (SNF vs. Community)

- **Long Stay with SNF (n = 414)**
- **Short Stay with SNF (n= 612)**
- **Long Stay from Community (n= 625)**
- **Short Stay from Community (n= 508)**

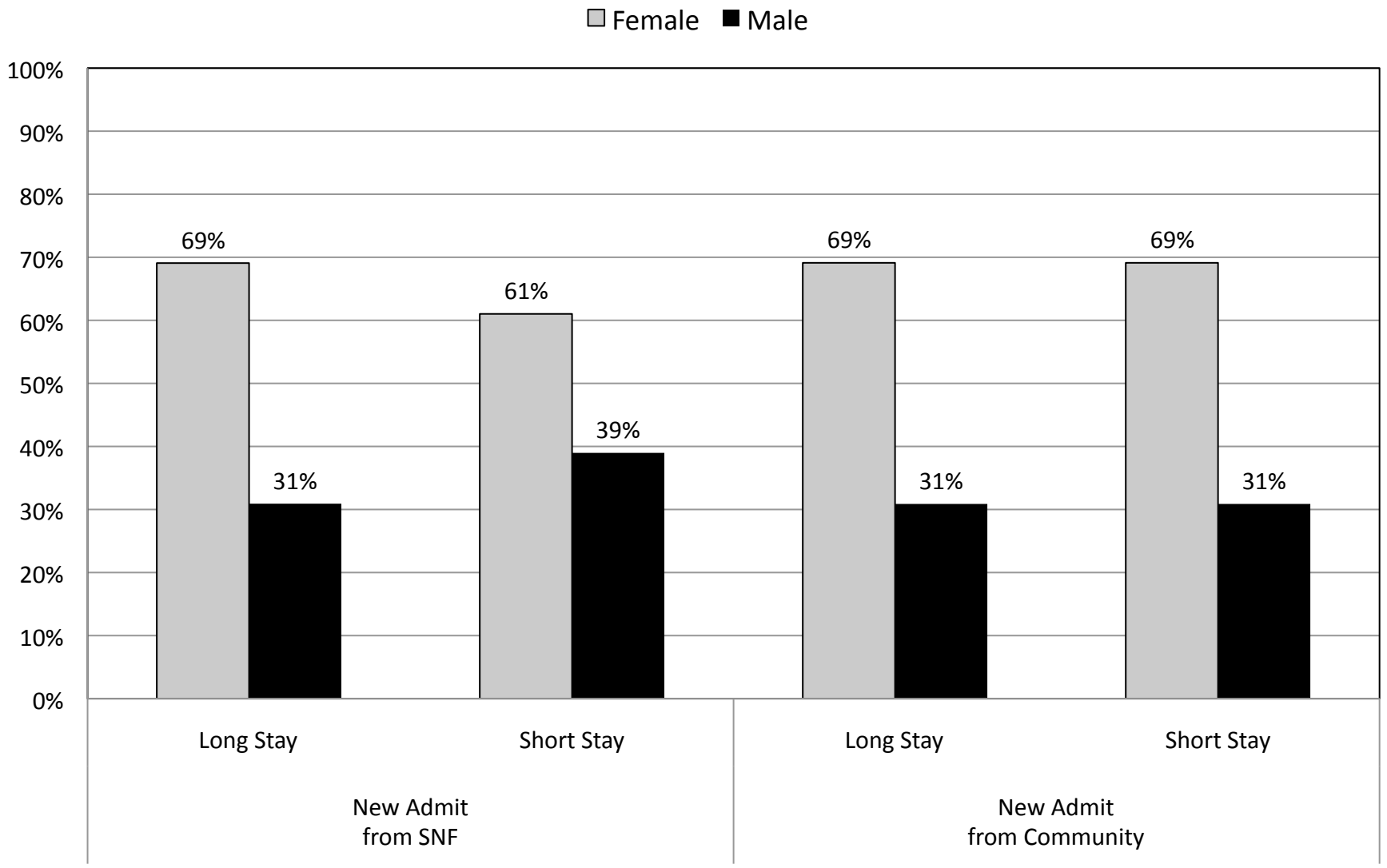
All data from Residents' MDS Admission Assessment in 2008

Figure 2.1: Age Group by New Admission Cohort and Long vs. Short Stay



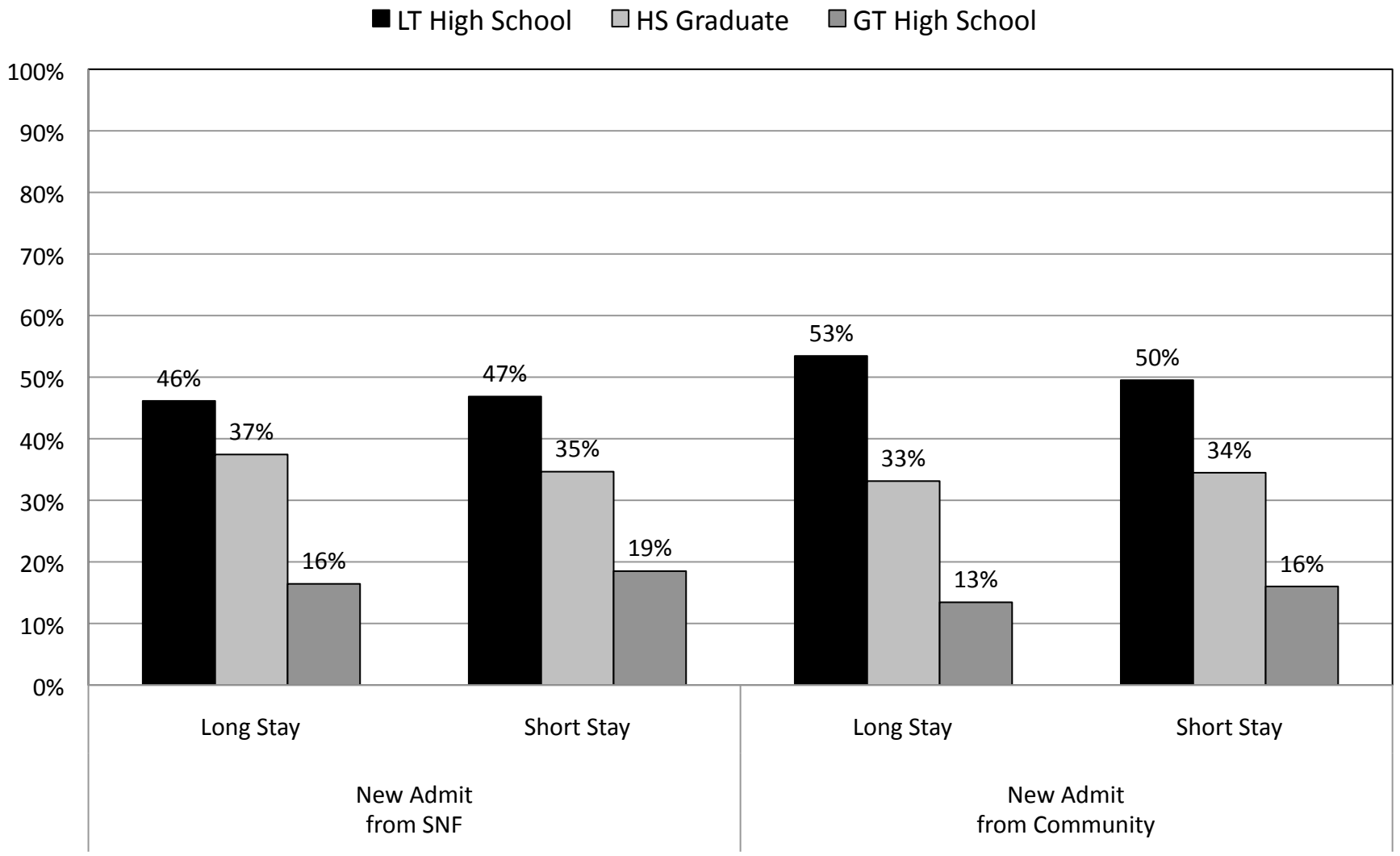
Source: MDS Admission Assessment, 2008

Figure 2.2: Gender by New Admission Cohort and Long vs. Short Stay



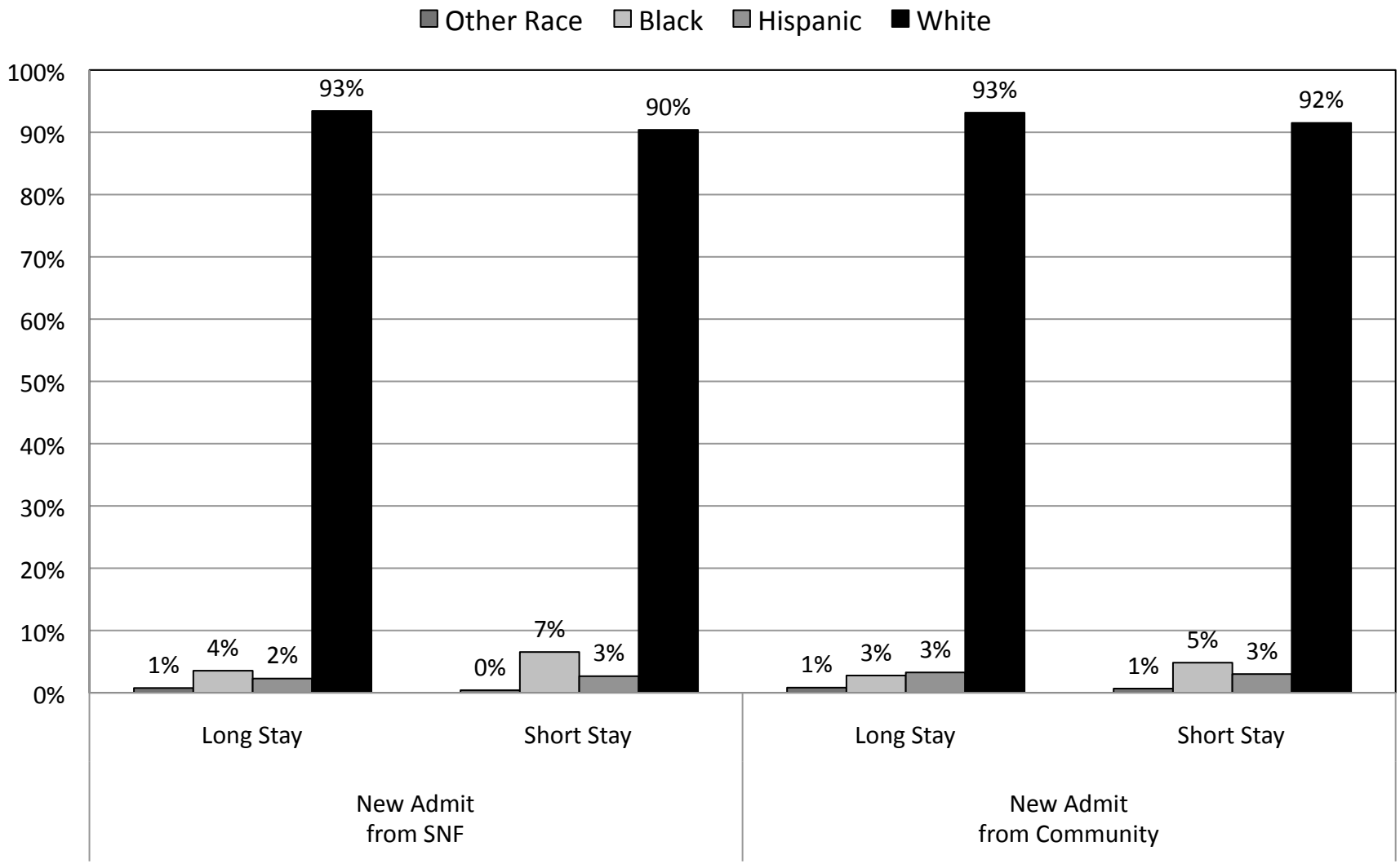
Source: MDS Admission Assessment, 2008

Figure 2.3: Education by New Admission Cohort and Long vs. Short Stay



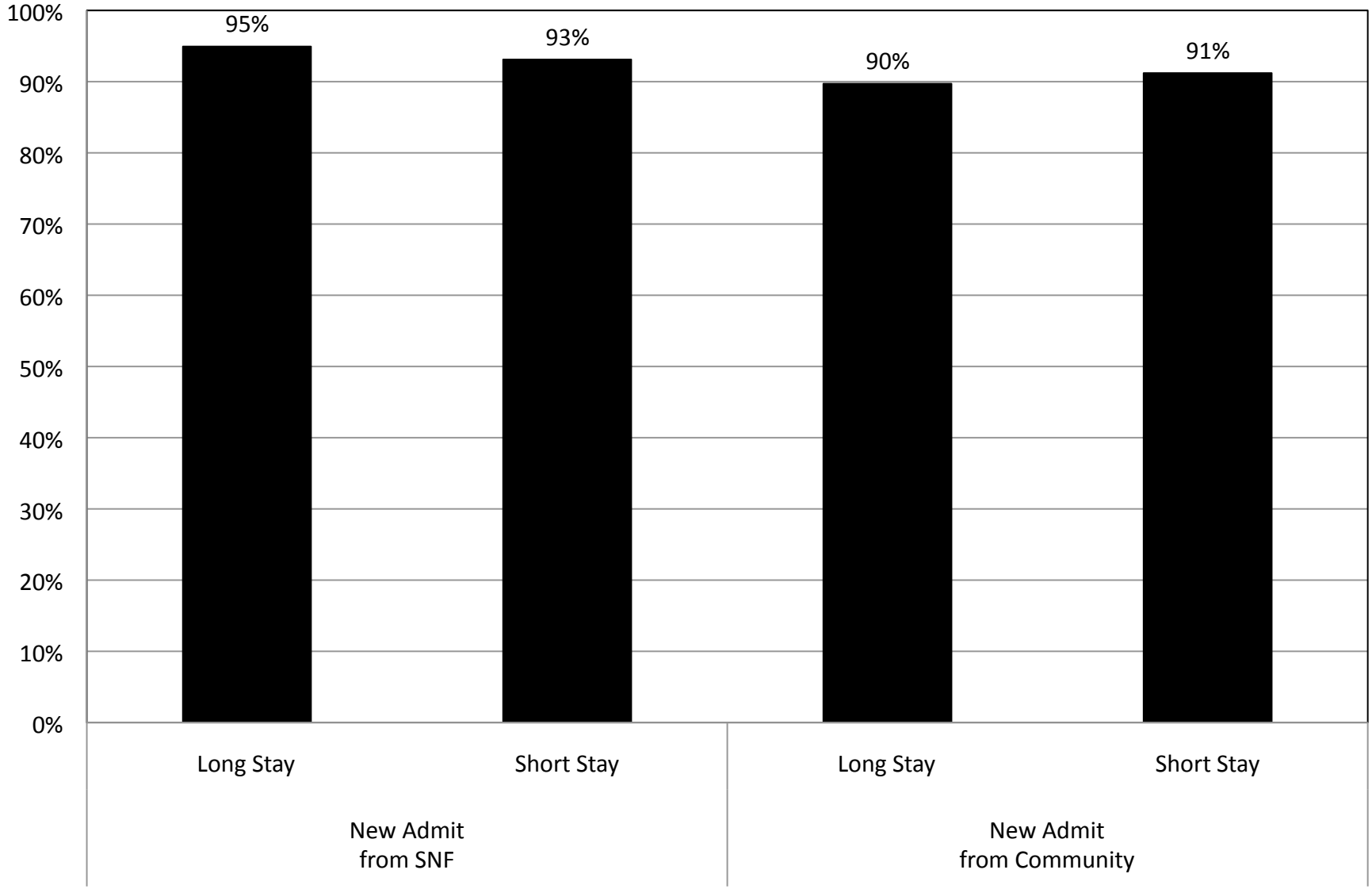
Source: MDS Admission Assessment, 2008

Figure 2.4: Race/Ethnicity by New Admission Cohort and Long vs. Short Stay



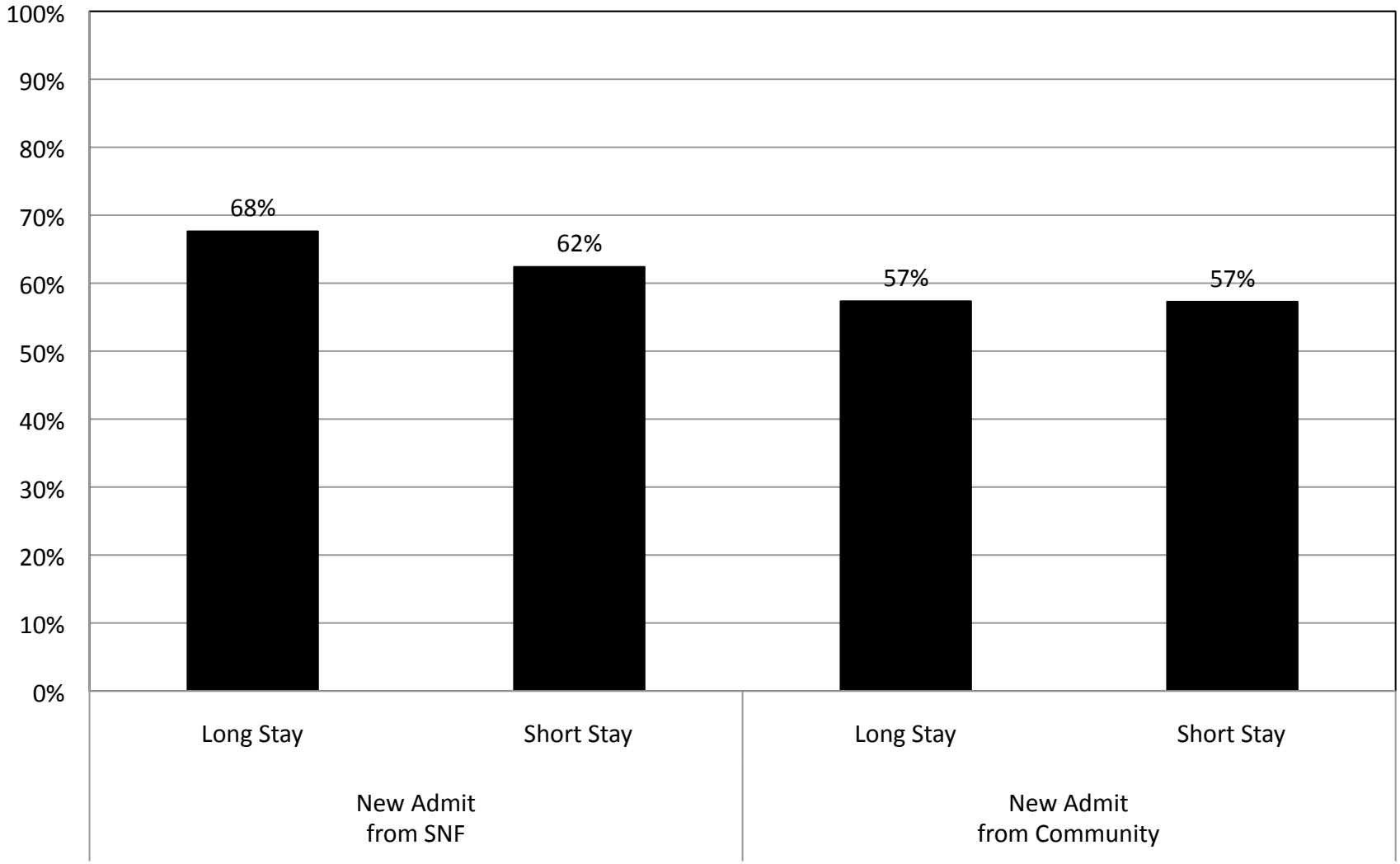
Source: MDS Admission Assessment, 2008

Figure 2.5: Bathing by New Admission Cohort and Long vs. Short Stay



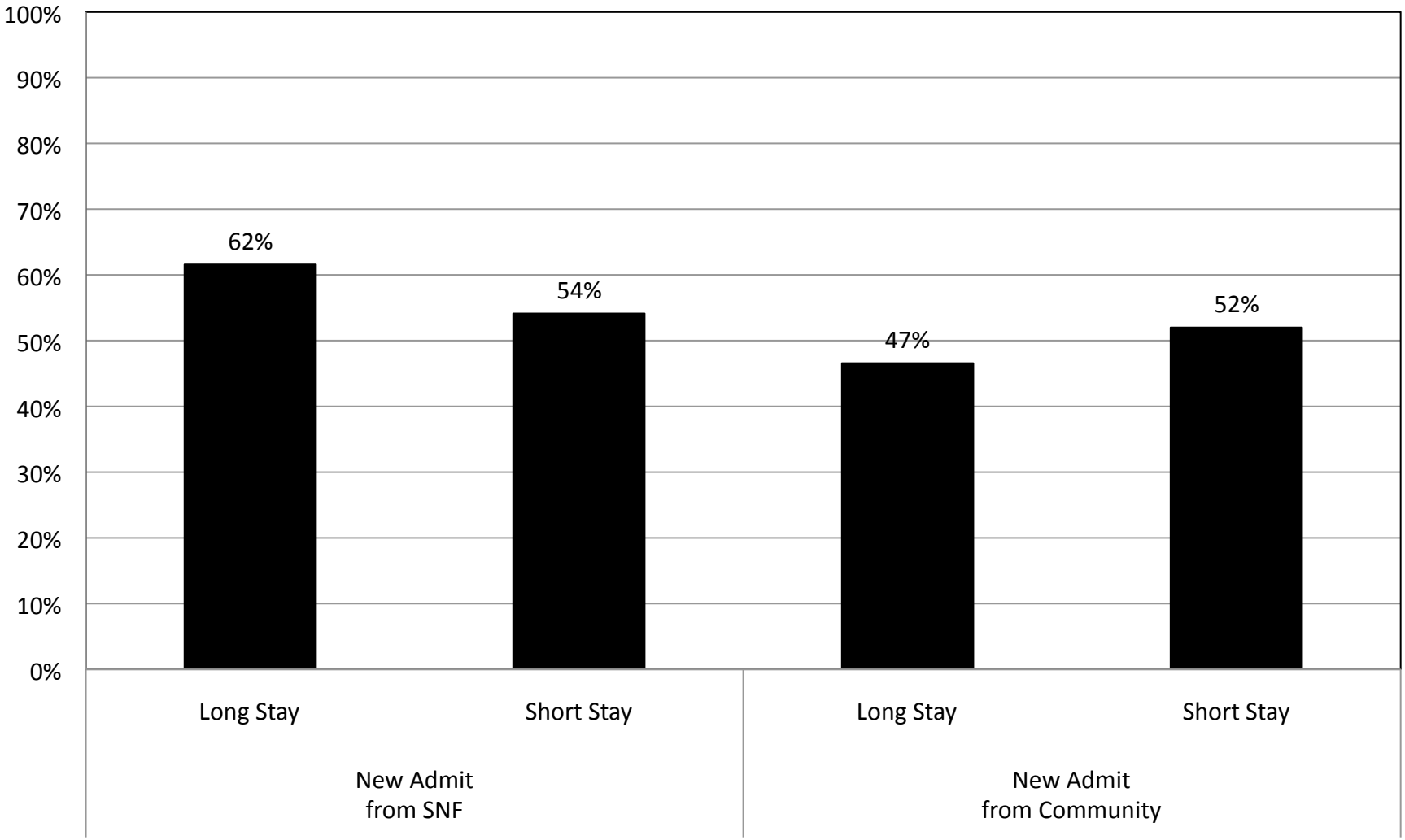
Source: MDS Admission Assessment, 2008

Figure 2.6: Dressing by New Admission Cohort and Long vs. Short Stay



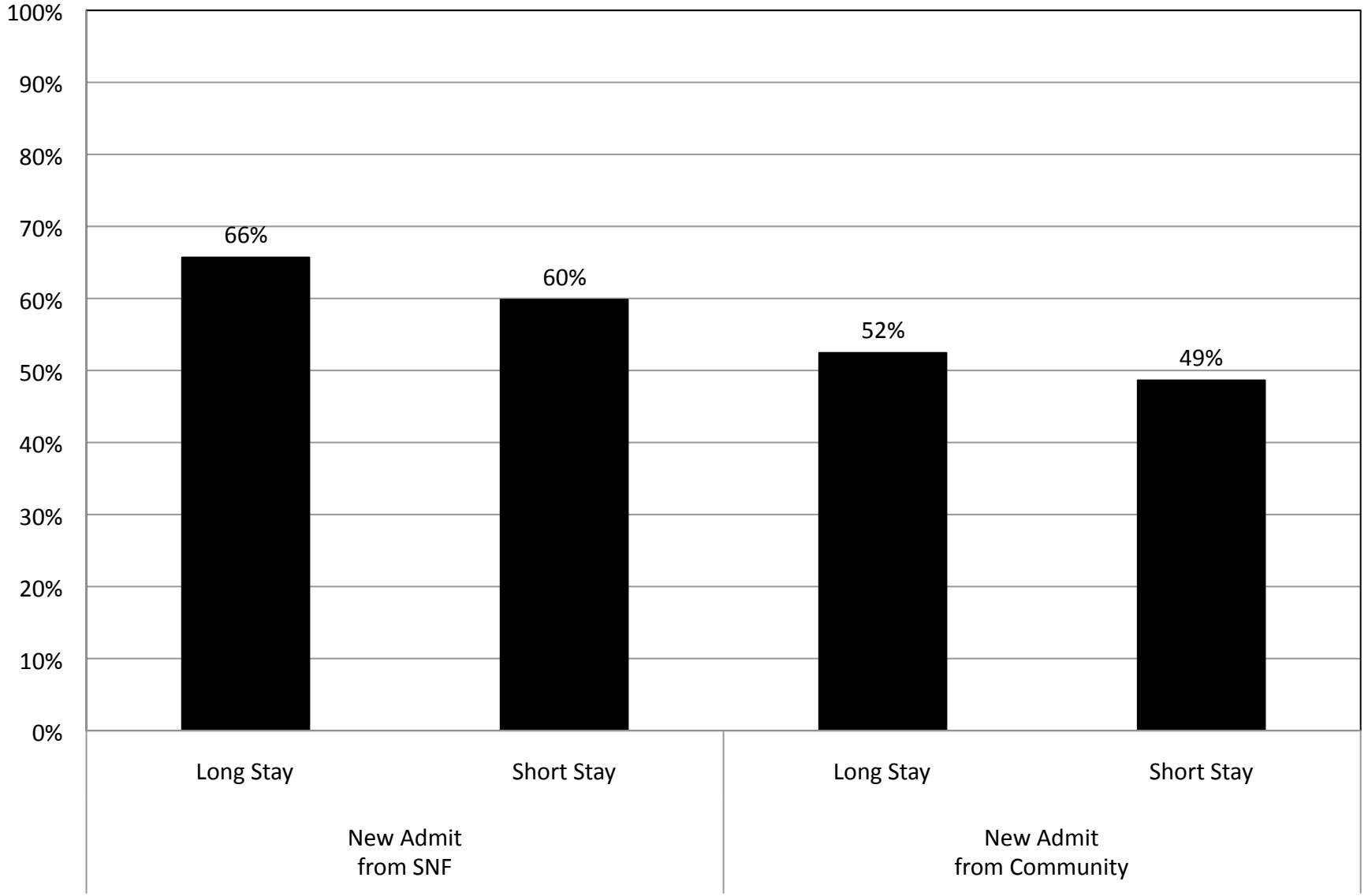
Source: MDS Admission Assessment, 2008

Figure 2.7: Personal Hygiene by New Admission Cohort and Long vs. Short Stay



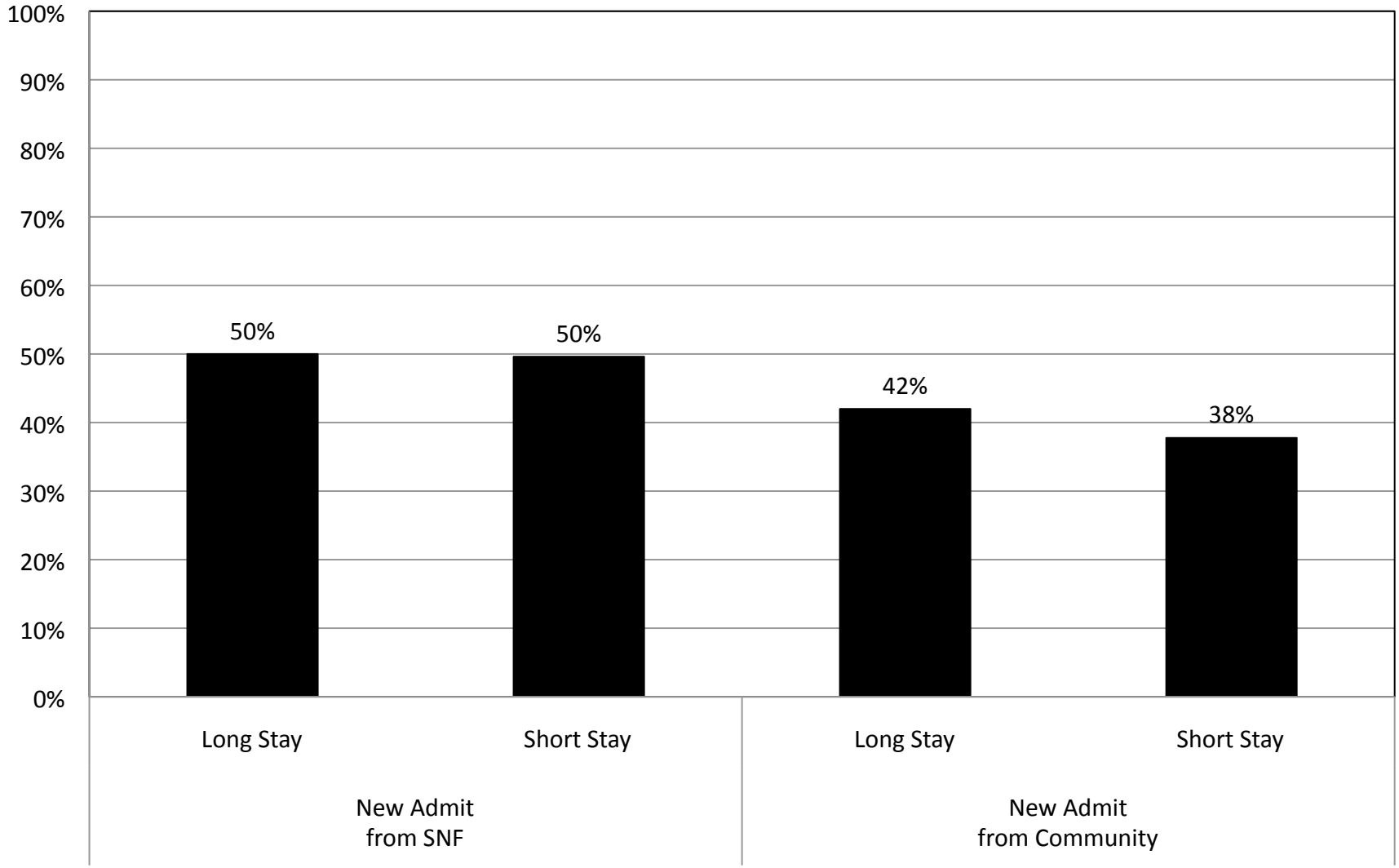
Source: MDS Admission Assessment, 2008

Figure 2.8: Toileting by New Admission Cohort and Long vs. Short Stay



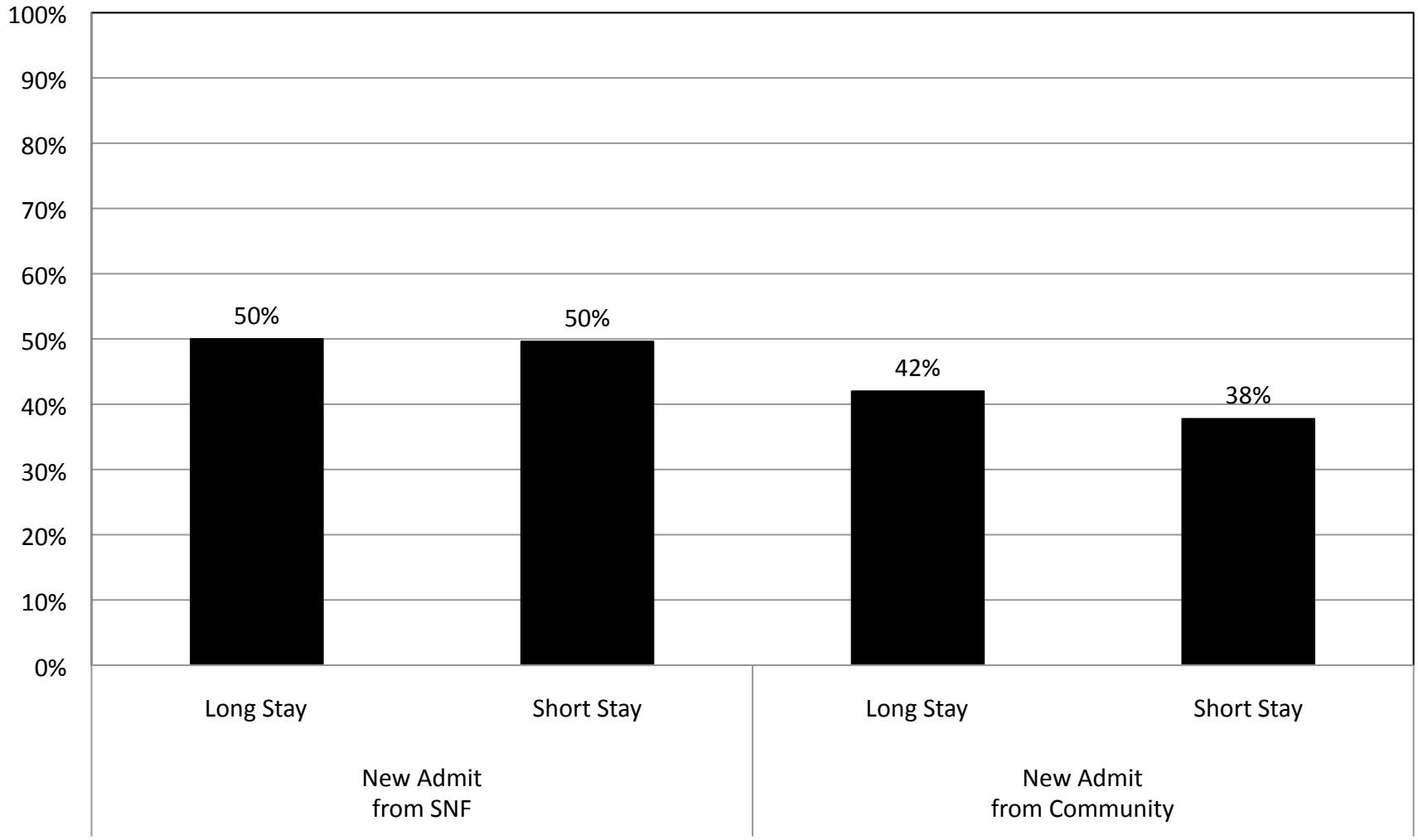
Source: MDS Admission Assessment, 2008

Figure 2.9: Transfering by New Admission Cohort and Long vs. Short Stay



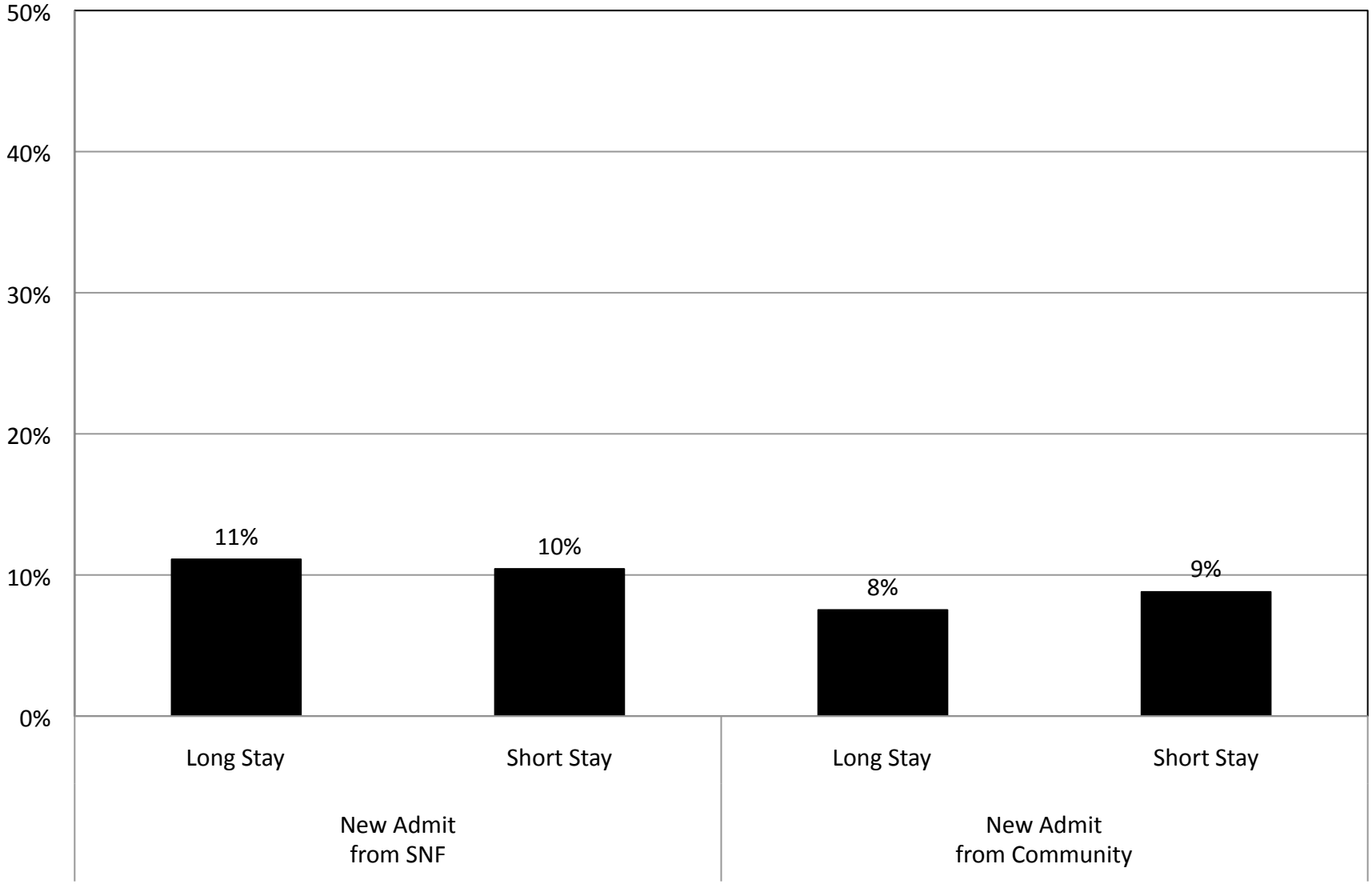
Source: MDS Admission Assessment, 2008

Figure 2.10: Bed Mobility by New Admission Cohort and Long vs. Short Stay



Source: MDS Admission Assessment, 2008

Figure 2.11: Eating by New Admission Cohort and Long vs. Short Stay



Source: MDS Admission Assessment, 2008

Figure 2.12: Cognitive Performance Scale (0 to 6) by New Admission Cohort and Long vs. Short Stay

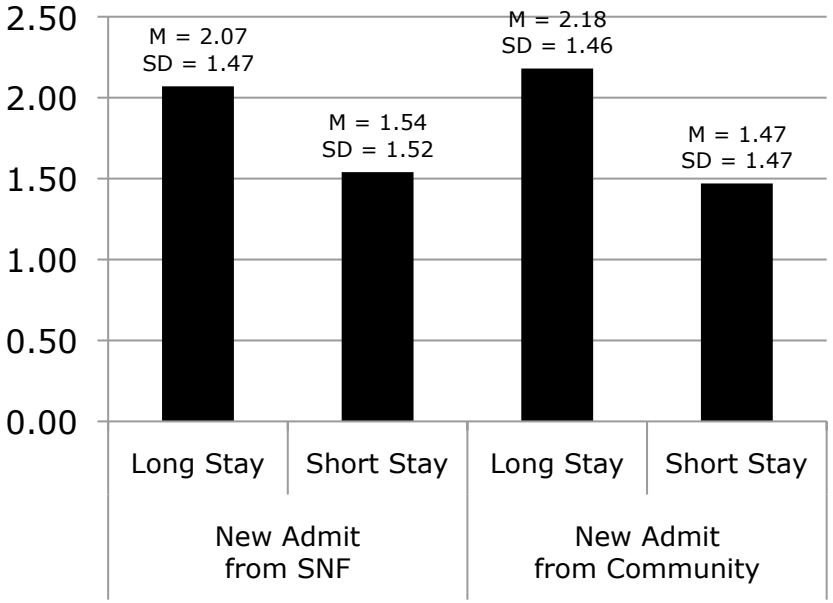
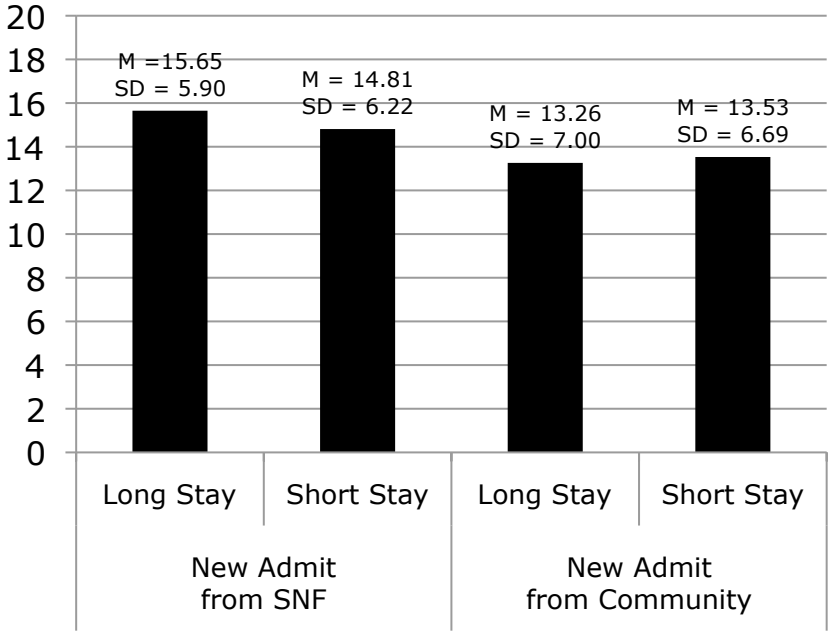


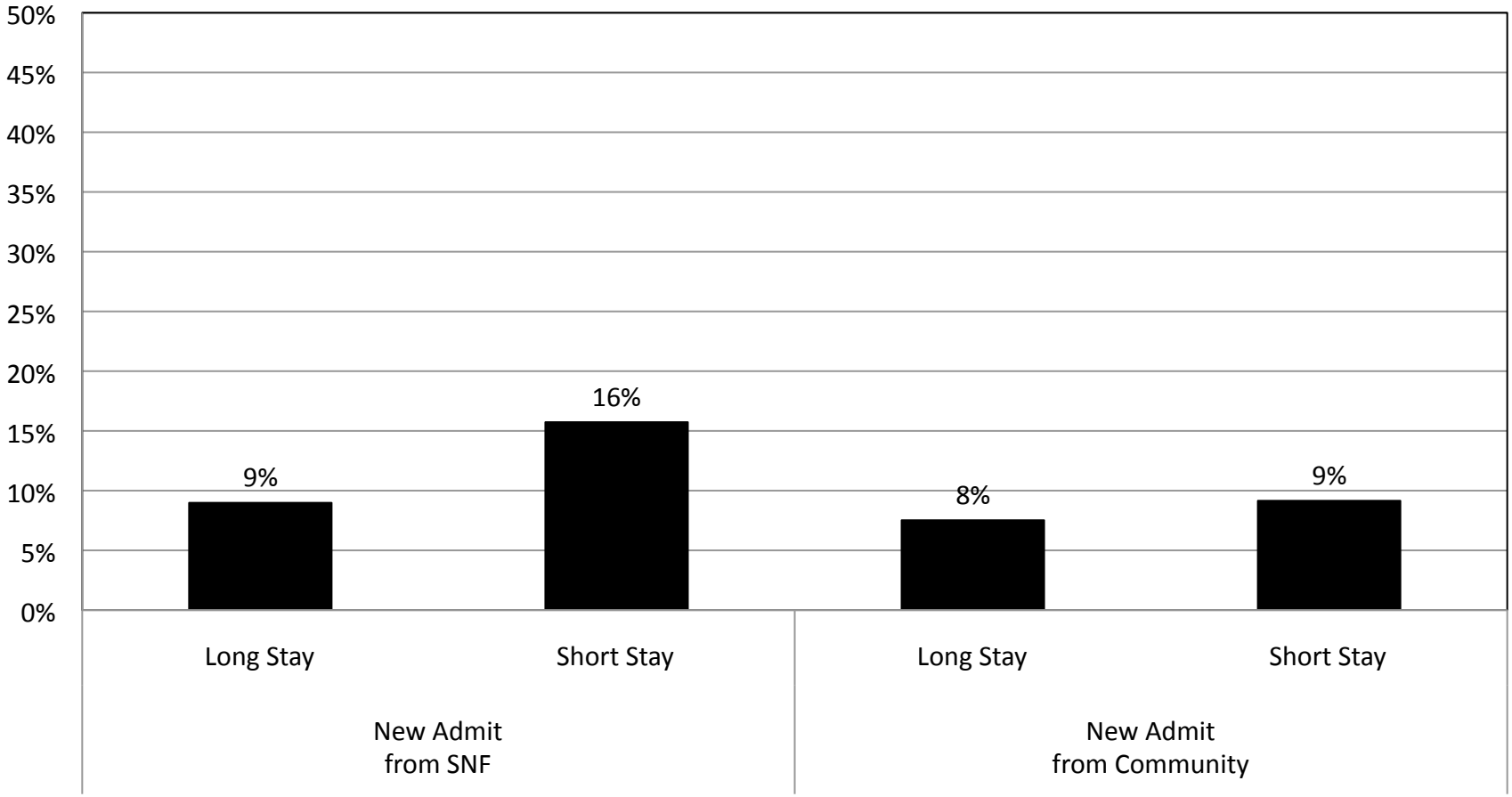
Figure 2.13: Morris ADL Scale (0 to 28) by New Admission Cohort and Long vs. Short Stay



Source: MDS Admission Assessment, 2008

Source: MDS Admission Assessment, 2008

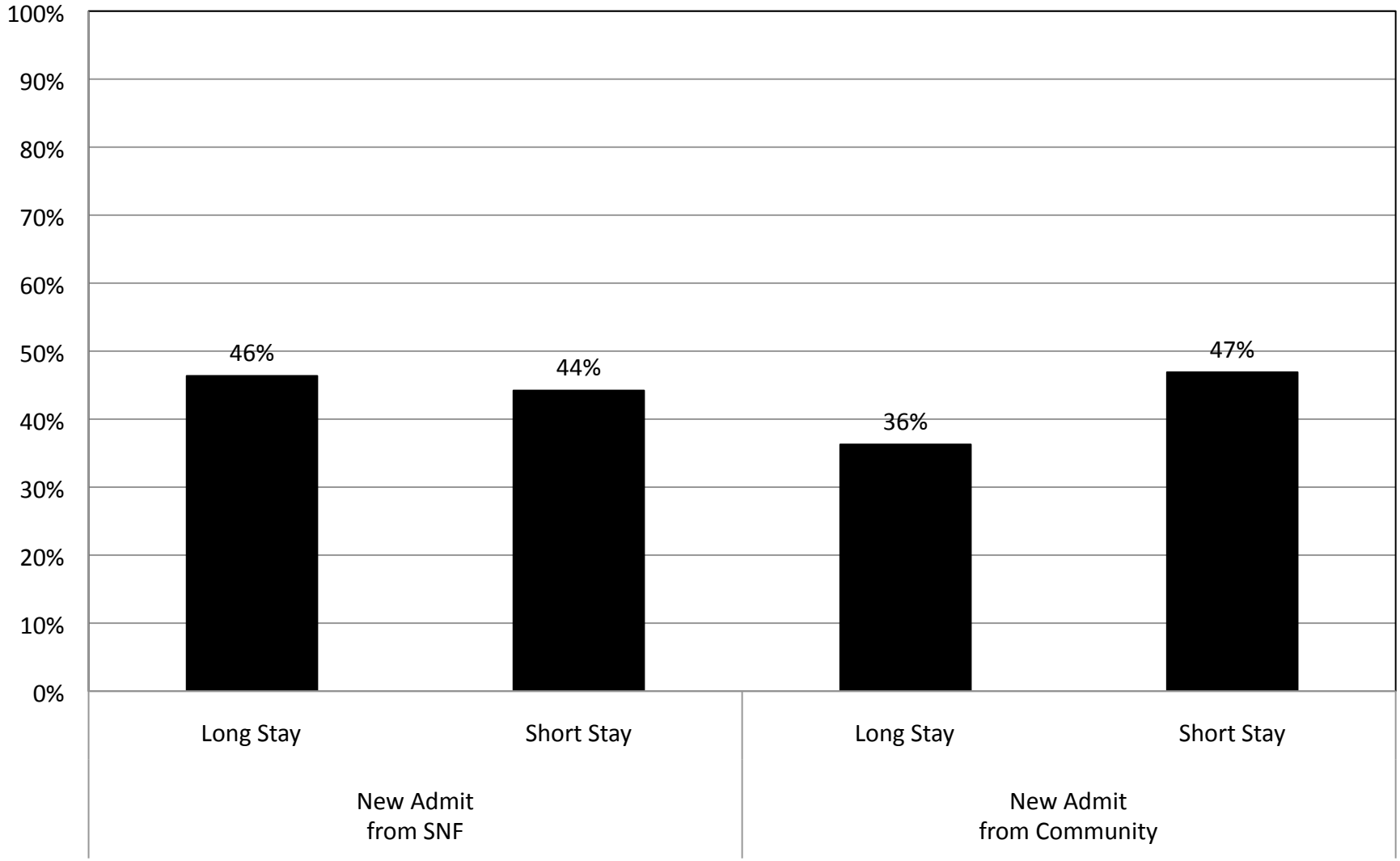
Figure 2.14: Record of Mental Health Problems* by New Admission Cohort and Long vs. Short Stay



Source: MDS Admission Assessment, 2008

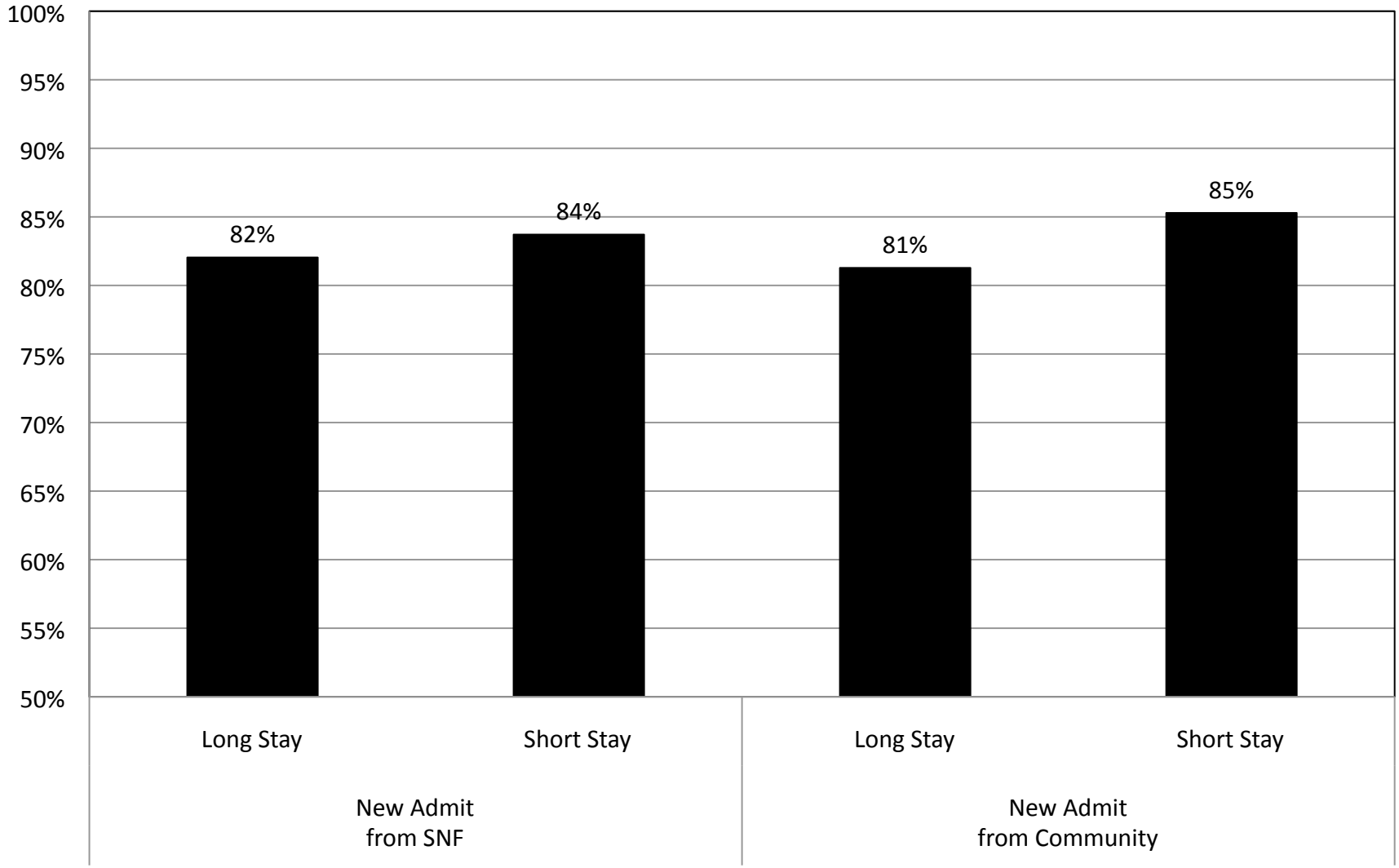
* Includes history of mental retardation, mental illness, or developmental disability problem.

Figure 2.15: Lived Alone Prior to NH Entry by New Admission Cohort and Long vs. Short Stay



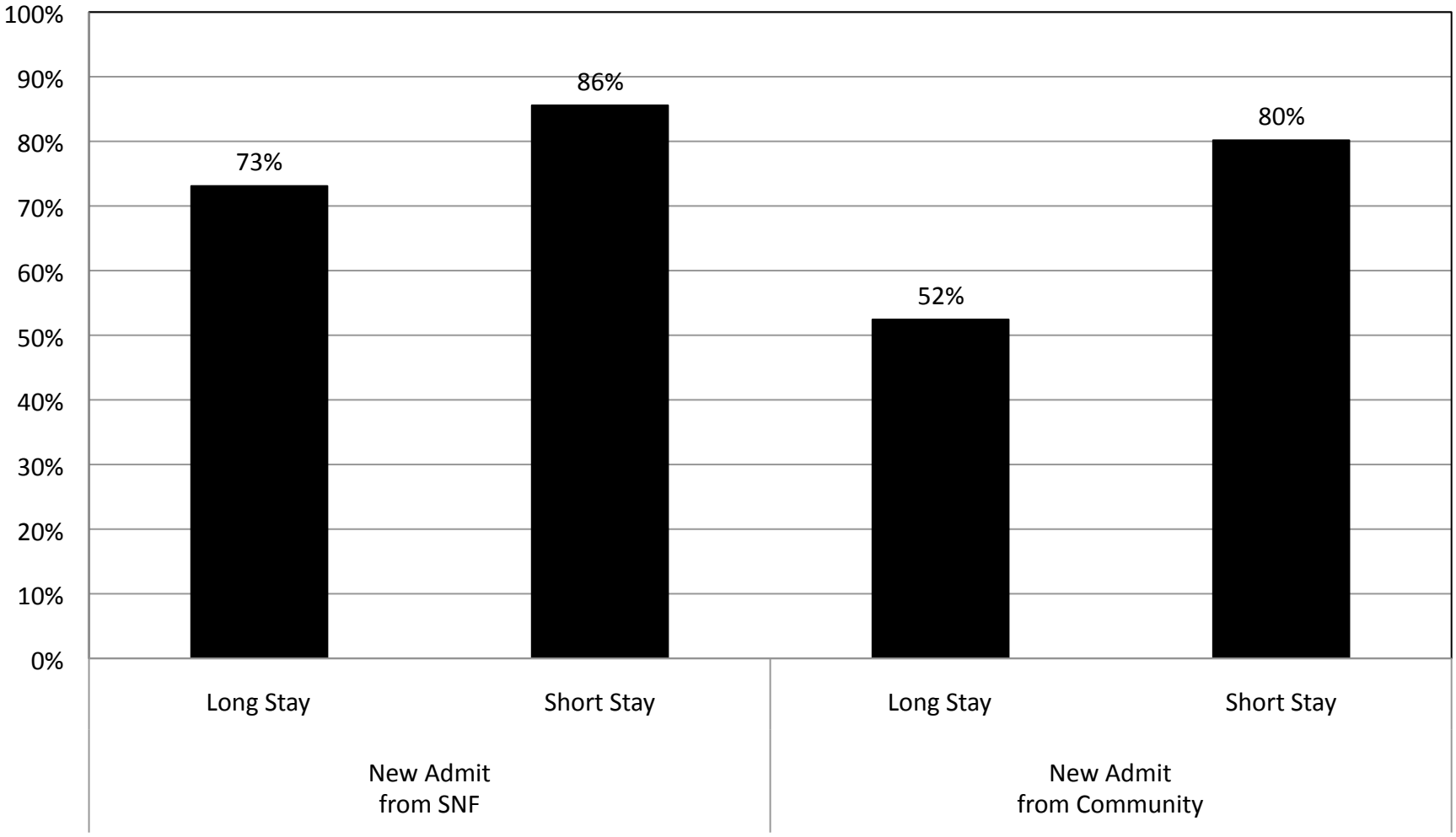
Source: MDS Admission Assessment, 2008

Figure 2.16: Daily Contact with Relatives/Friends Prior to NH Entry by New Admission Cohort and Long vs. Short Stay



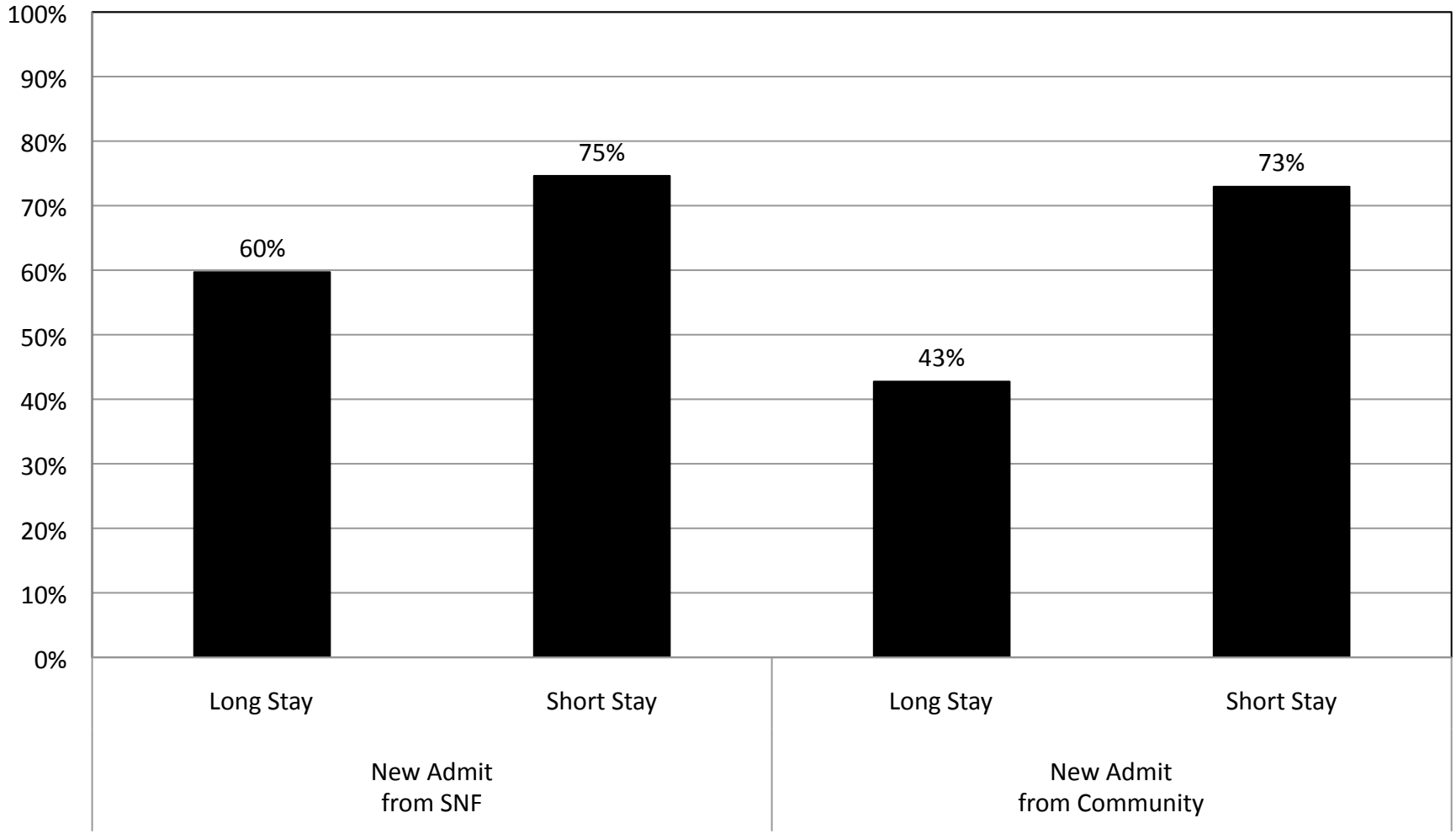
Source: MDS Admission Assessment, 2008

Figure 2.17: Indicated Preference to Return to Community by New Admission Cohort and Long vs. Short Stay



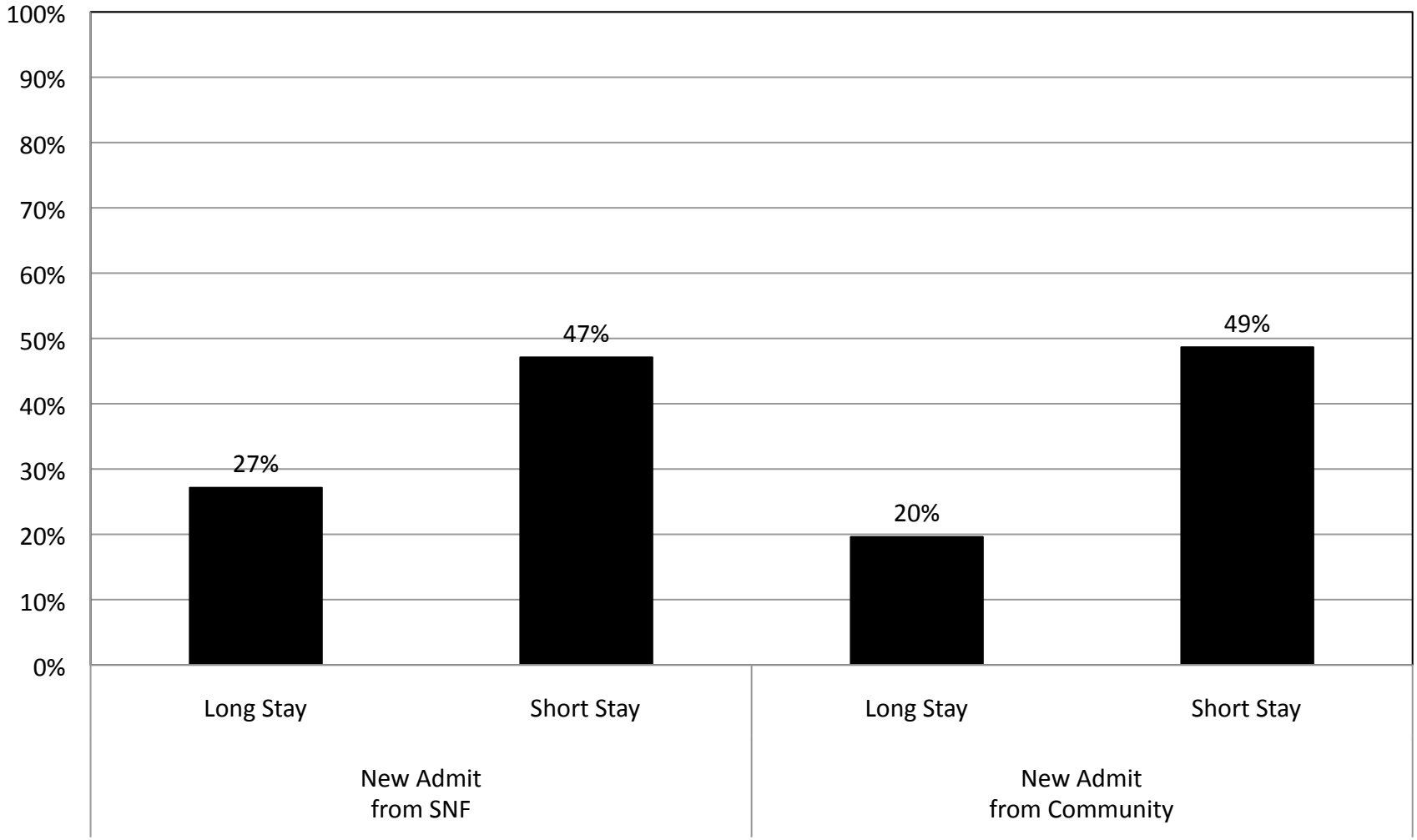
Source: MDS Admission Assessment, 2008

Figure 2.18: Has Support to Return to Community by New Admission Cohort and Long vs. Short Stay



Source: MDS Admission Assessment, 2008

Figure 2.19: Discharge Potential (LT 90 days) at NH Entry by New Admission Cohort and Long vs. Short Stay



Source: MDS Admission Assessment, 2008

SECTION III:

2008 New Admissions: Long Stay
Comparing Low-Care and Non-Low-Care Residents
(Broad Definition)

- Long Stay New Admits (n = 1039)
- Low Care (n = 327)
- Non Low Care (n = 712)

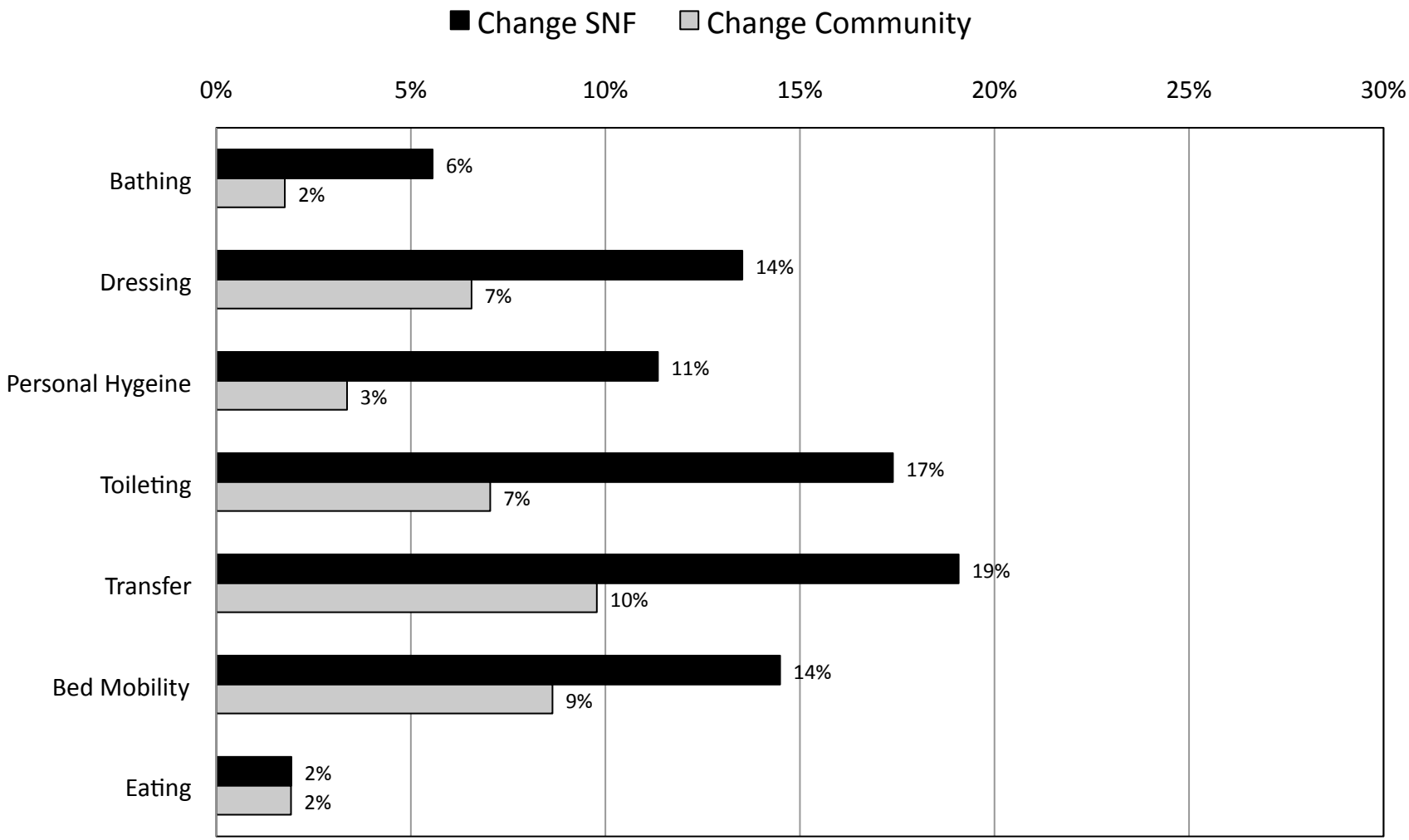
Demographic and Social Support Data from MDS Admission Assessment, 2008
Physical & Cognitive Data from 1st Quarterly MDS Assessment, 2008

Table 3.1

% RI Medicaid Nursing Home Residents Who Meet Broad and Narrow Definitions of "Low Care" in 2008

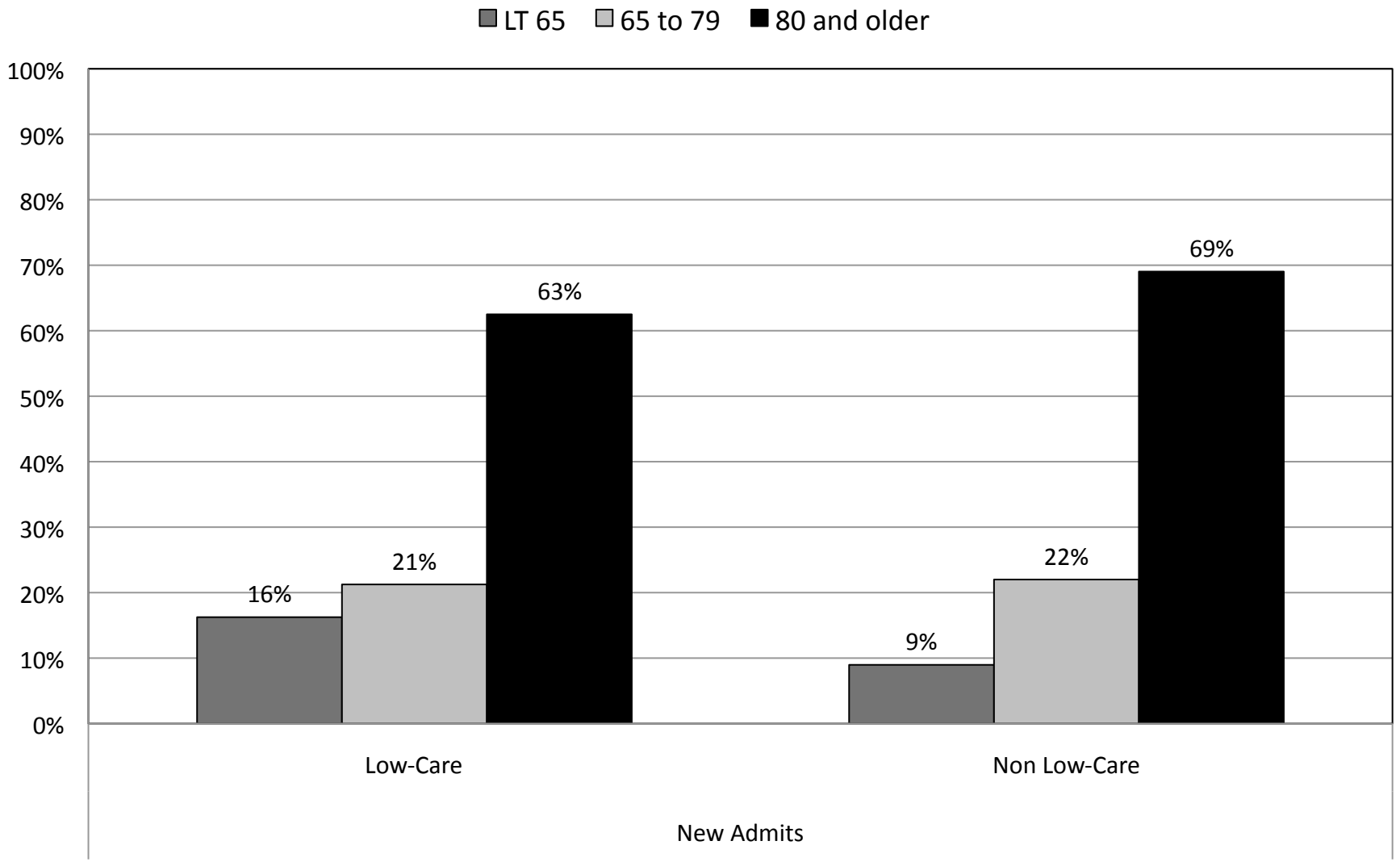
Low Care Definition	Admissions Assessment	Quarterly Assessment
2008 New Admissions: Long Stay		
Admitted with SNF (n=414)		
Broad	2.90	26.8
Narrow	0.97	0.24
Admitted from Home (n=625)		
Broad	10.88	34.6
Narrow	4.48	0.32
2008 New Admissions: Short Stay		
Admitted with SNF (n=508)		
Broad	1.97	------
Narrow	.20	------
Admitted from Home (n=612)		
Broad	5.07	------
Narrow	1.14	------
Admitted Prior to 2008: Long Stay		
Broad	------	25.34
Narrow	------	2.77

Figure 3.1: Percent Reduction in Functional Dependency-- New Admissions Cohort, Admission to Quarterly MDS



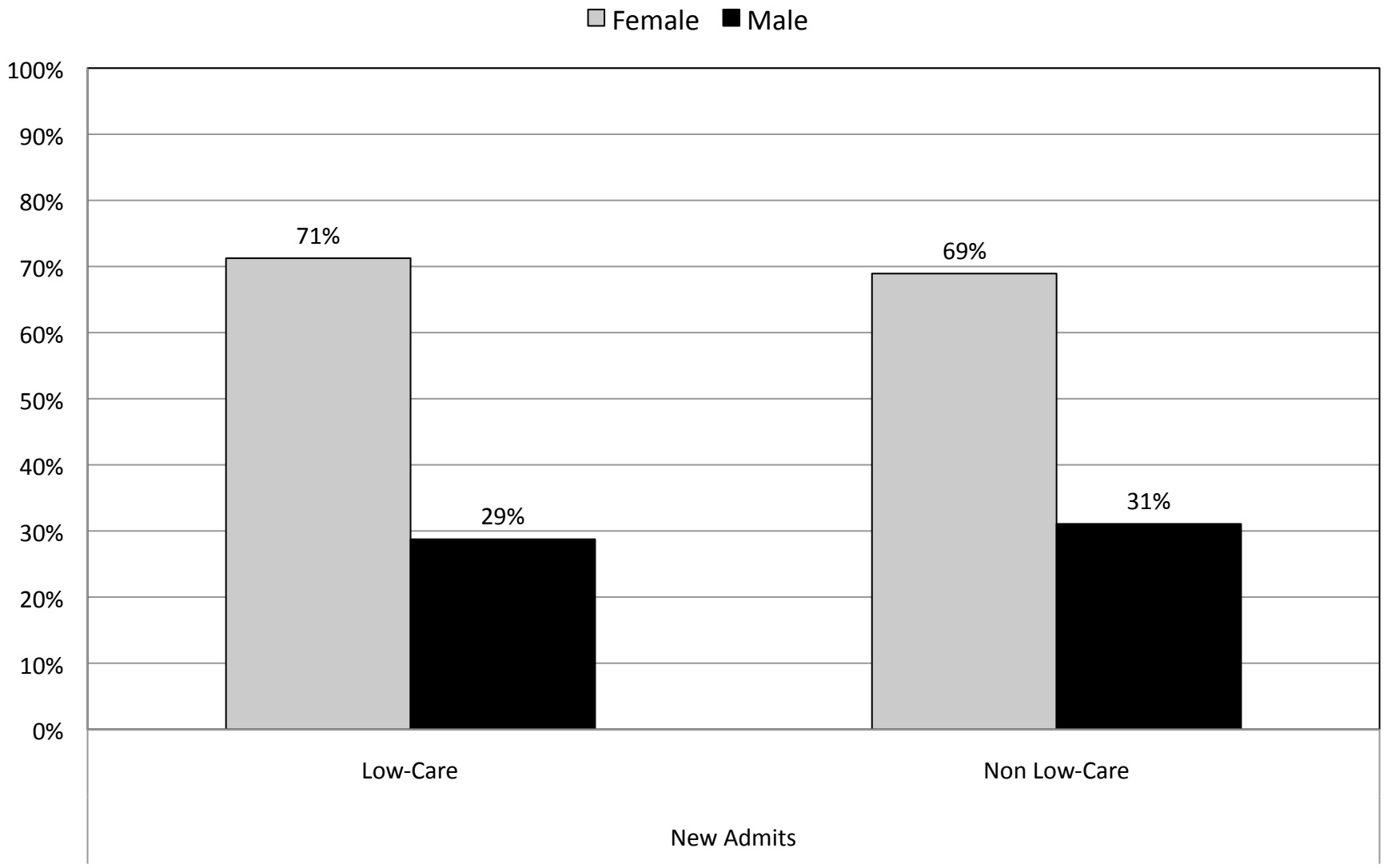
Source: MDS Admission Assessment and 1st Quarterly MDS Assessment, 2008

Figure 3.2: Age Group by Low Care Status



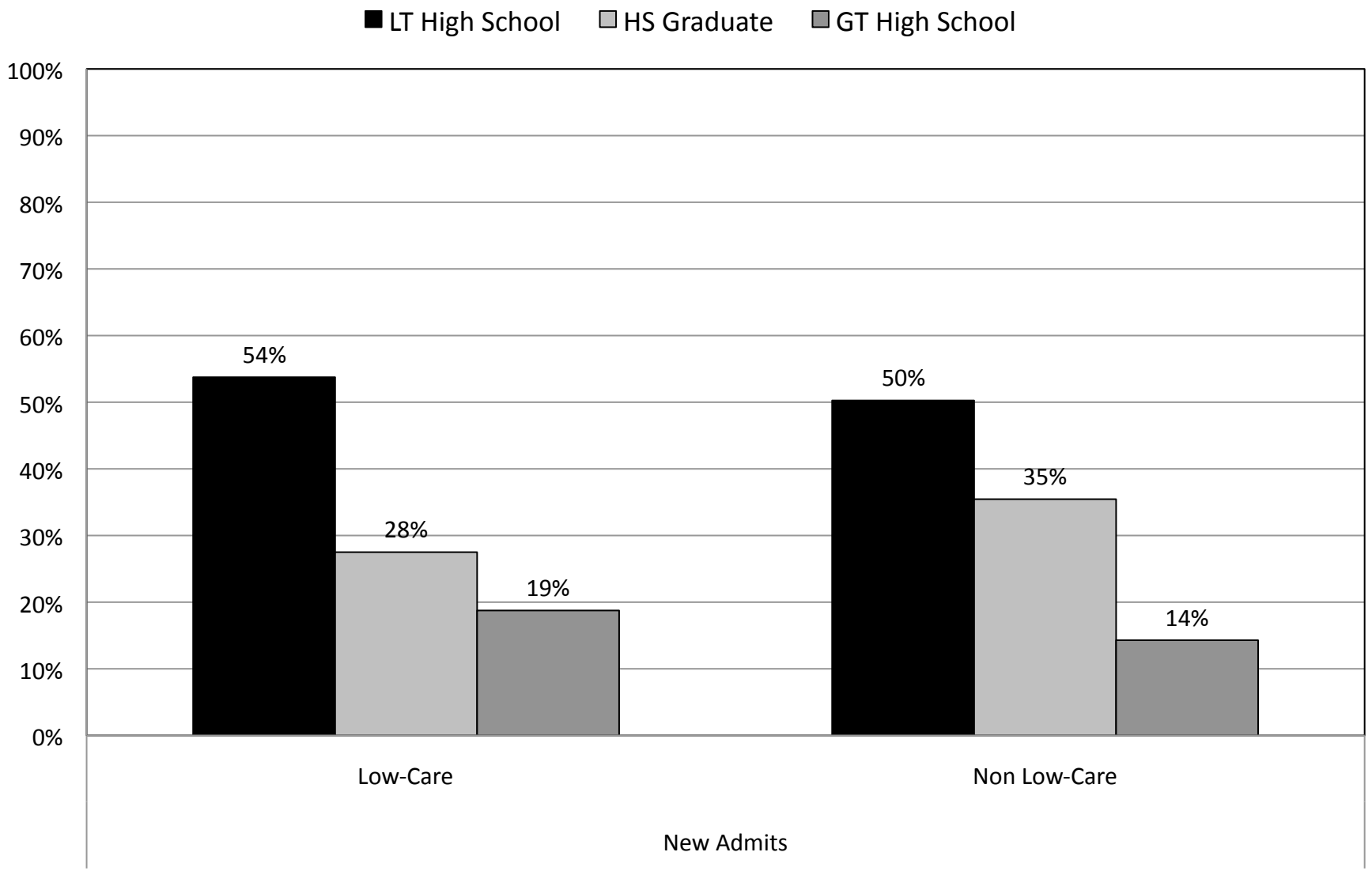
Source: MDS Admission Assessment, 2008

Figure 3.3: Gender by Low Care Status



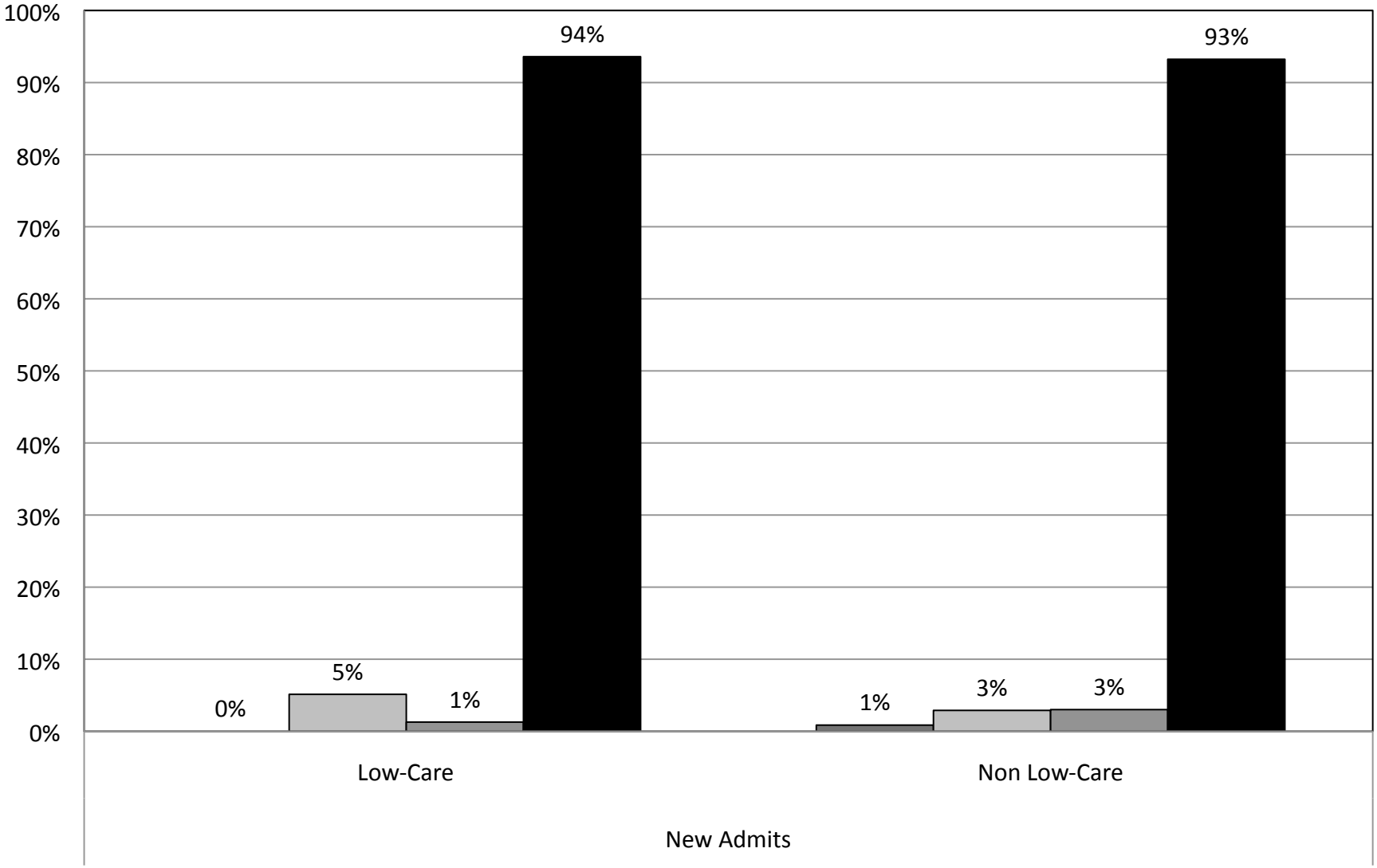
Source: MDS Admission Assessment, 2008

Figure 3.4: Education by Low Care Status



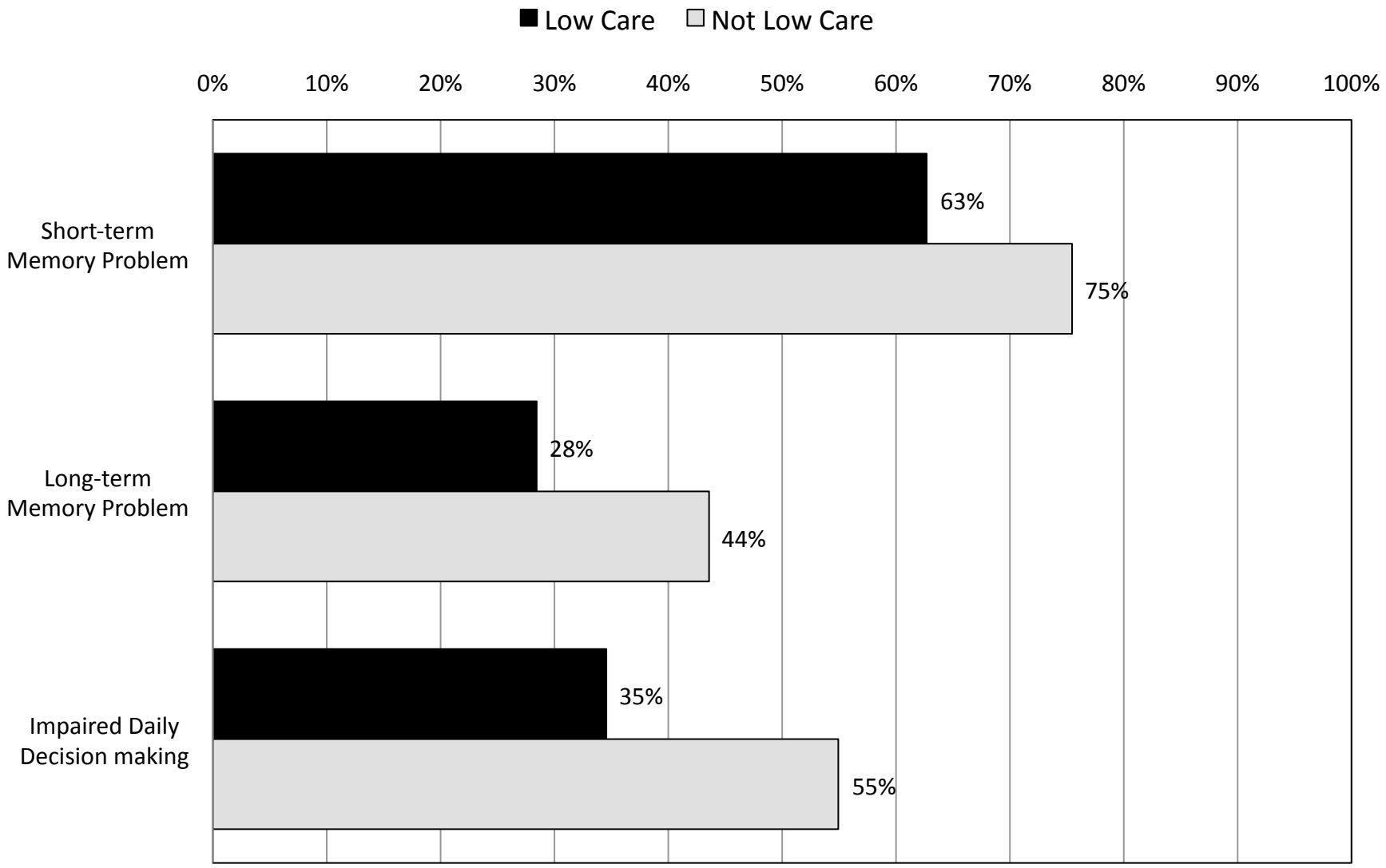
Source: MDS Admission Assessment, 2008

Figure 3.5: Race/Ethnicity by Low Care Status



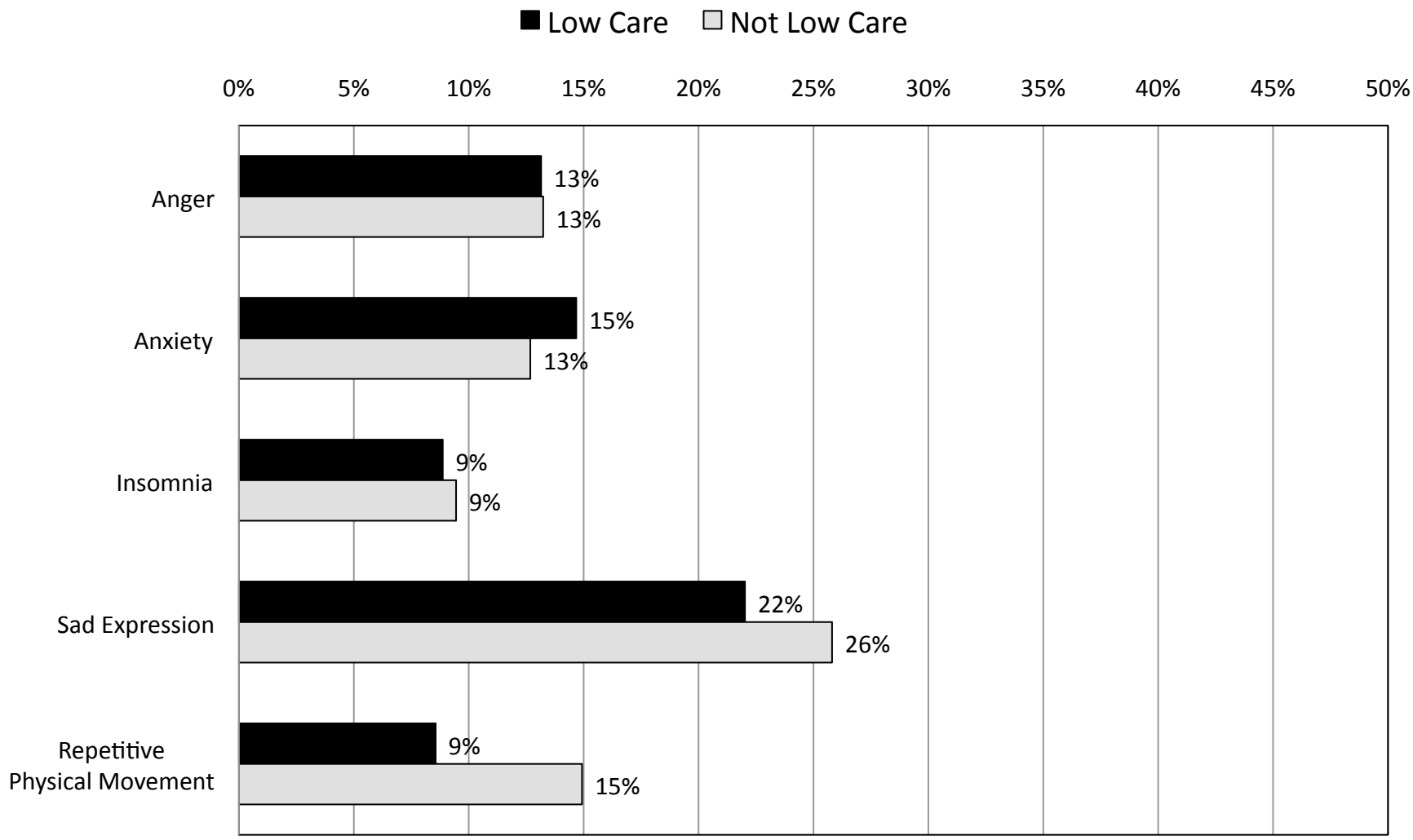
Source: MDS Admission Assessment, 2008

Figure 3.6: Cognitive Patterns by Low Care Status



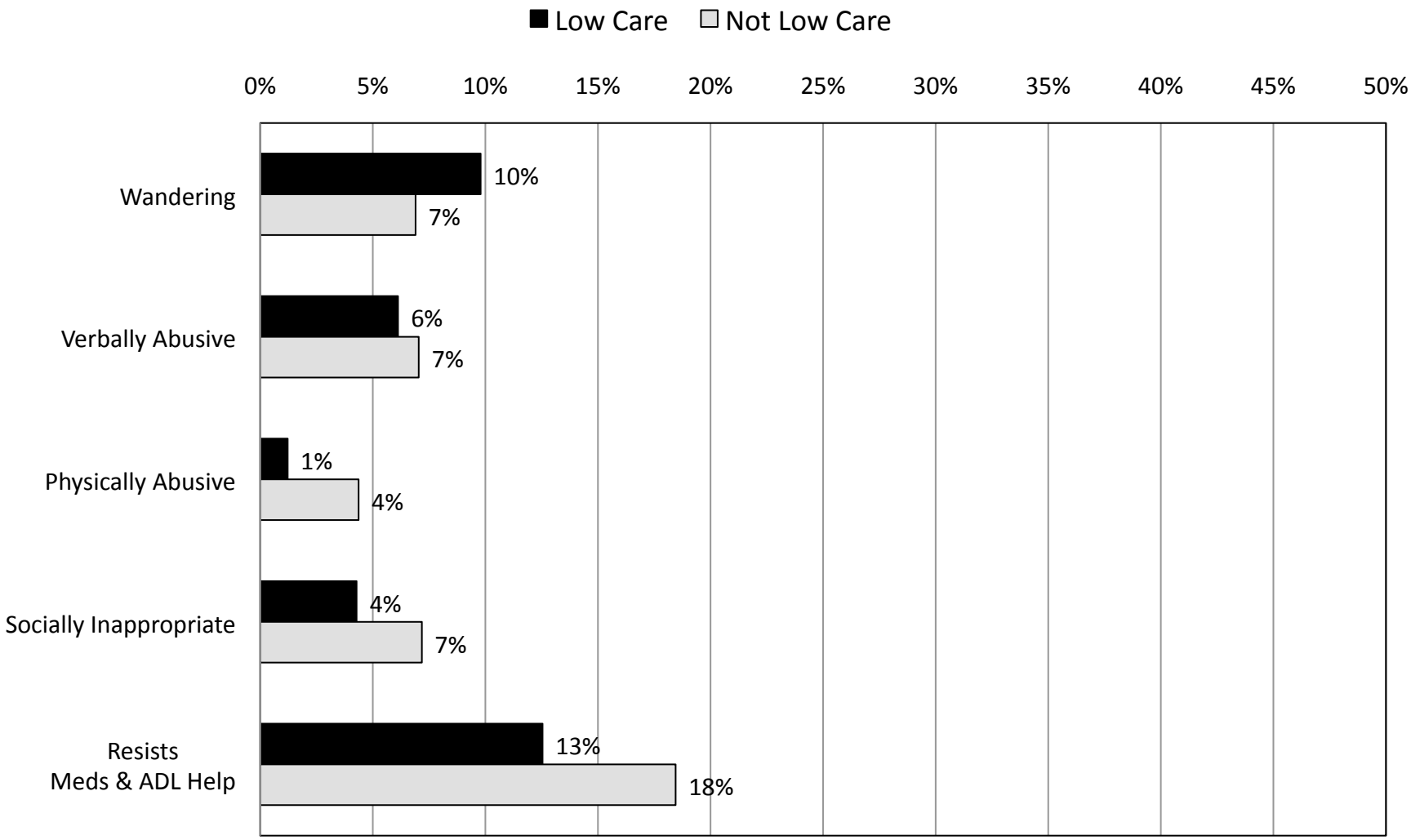
Source: 1st Quarterly MDS Assessment, 2008

Figure 3.7: Mood Patterns by Low Care Status: Observed >=5 Days/ Week



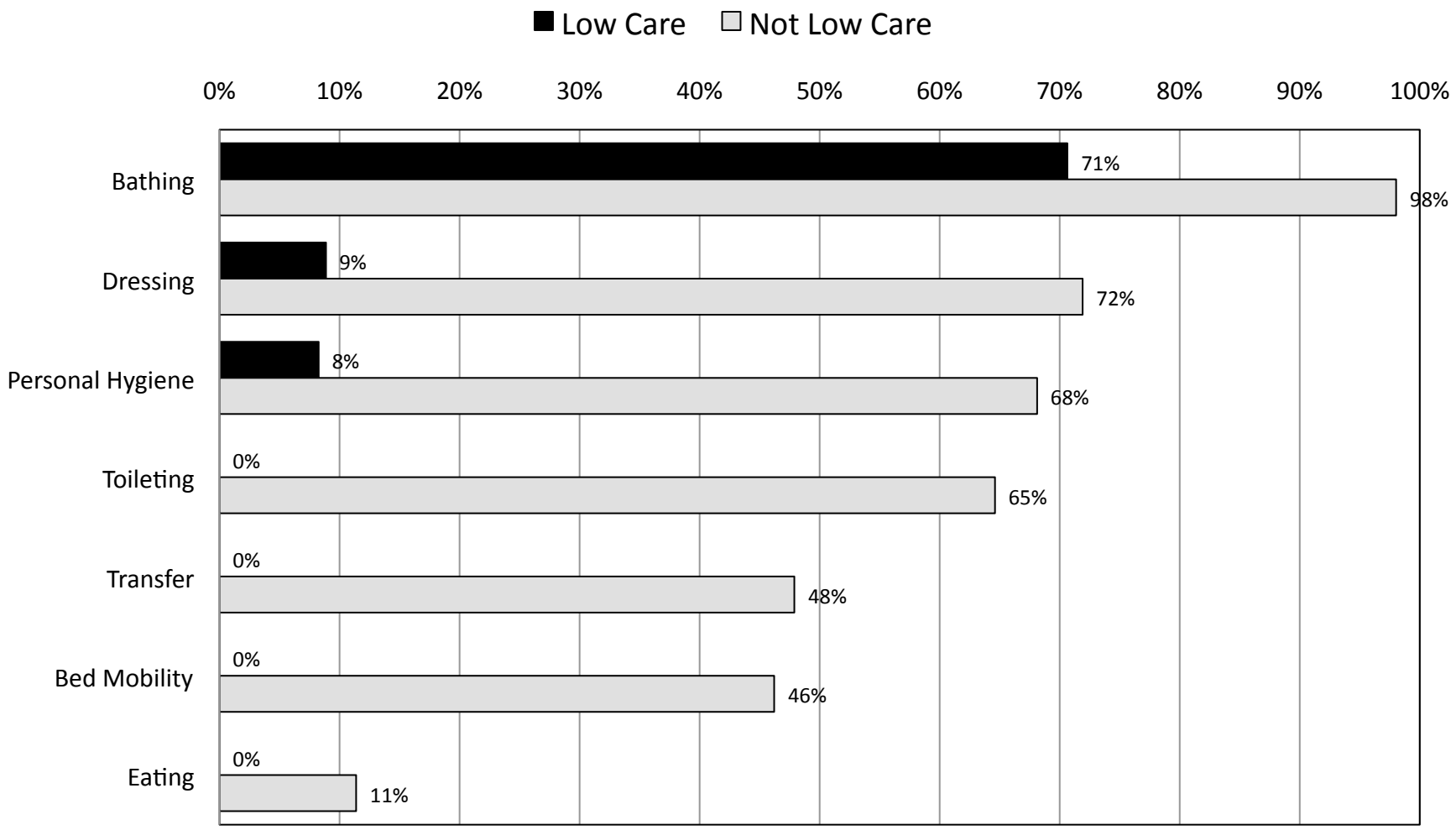
Source: 1st Quarterly MDS Assessment, 2008

Figure 3.8: Behavior Patterns by Low Care Status: Observed >= 1 Time/Past 7 Days



Source: 1st Quarterly MDS Assessment, 2008

Figure 3.9: ADLs by Low Care Status: Needs Extensive/Total Assistance in Past 7 Days



Source: 1st Quarterly MDS Assessment, 2008

Figure 3.10: Cognitive Performance Scale (Range 0 to 6) by Low Care Status

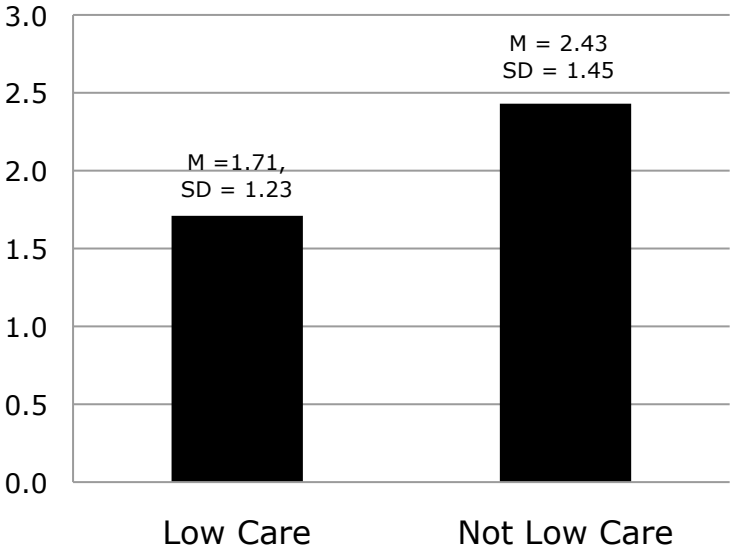
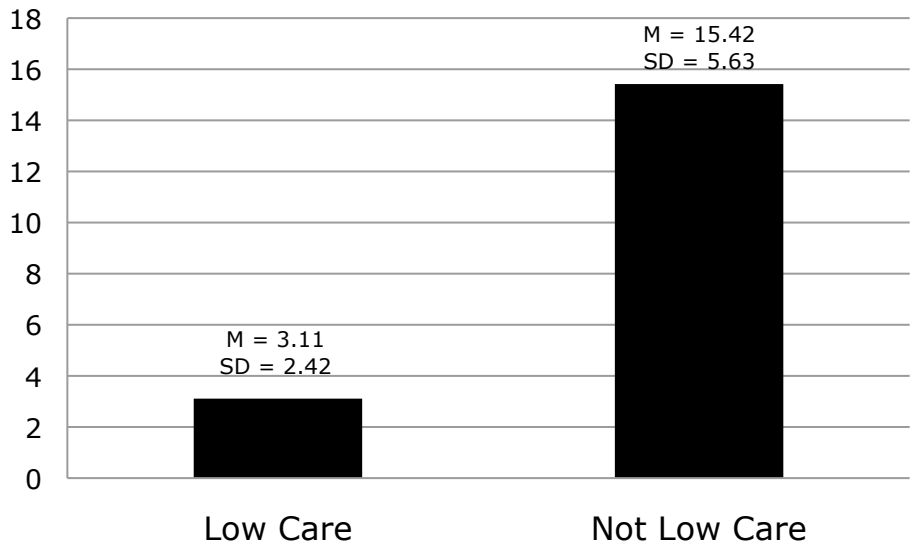
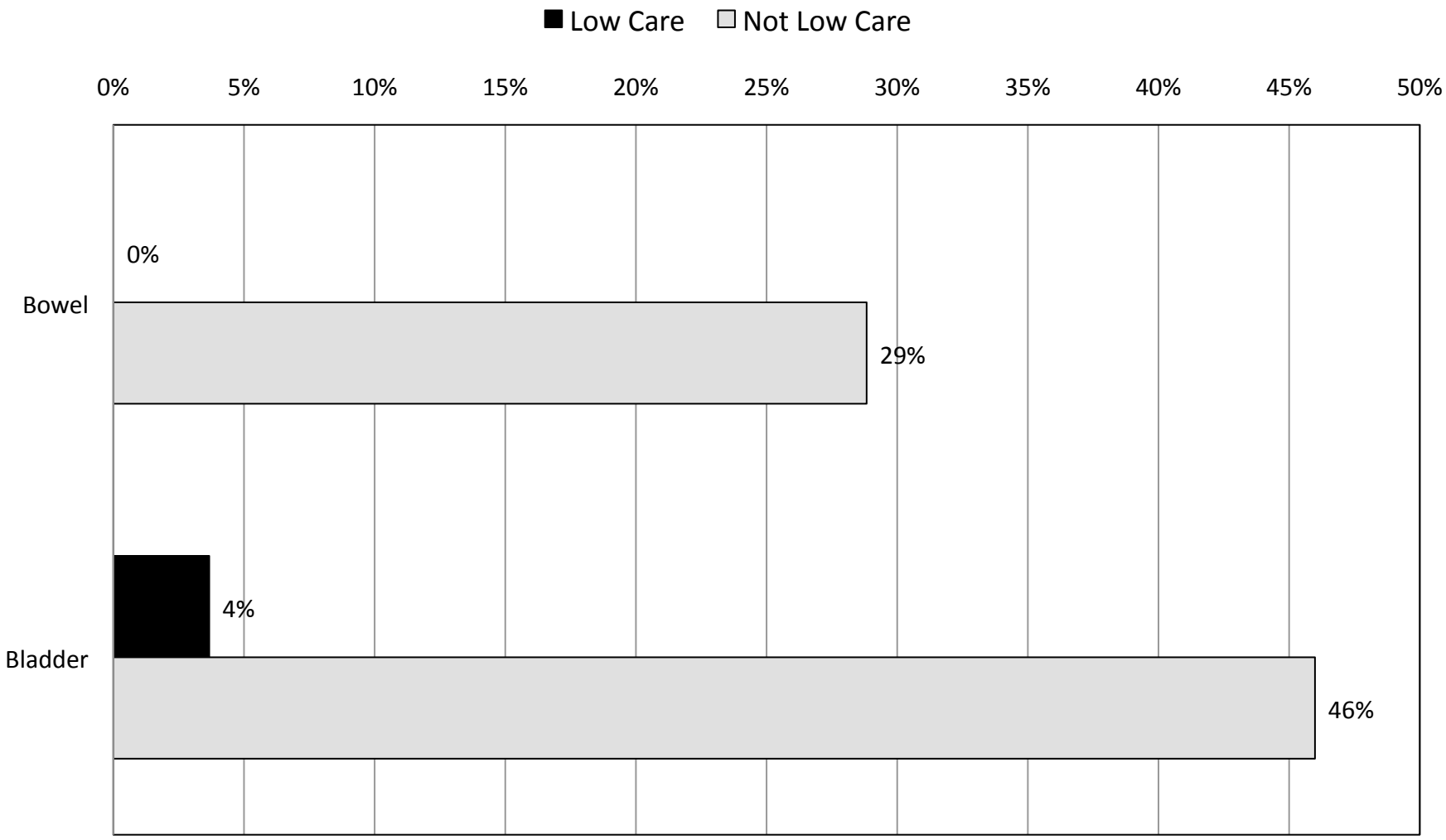


Figure 3.11 Morris ADL Scale (range 0 to 28) by Low Care Status



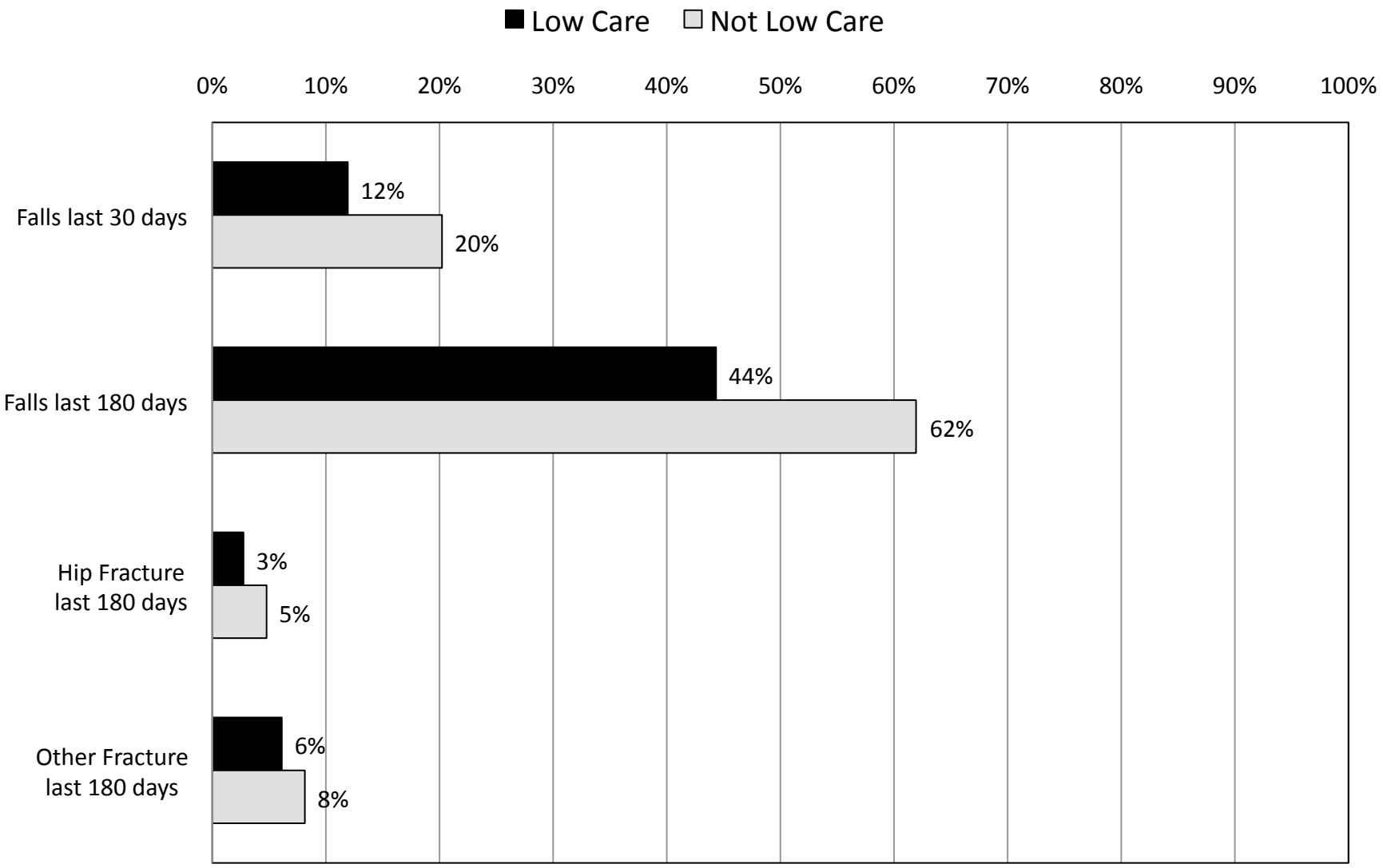
Source: 1st Quarterly MDS Assessment, 2008

Figure 3.12: Frequently/Always Incontinent in Last 14 Days by Low Care Status



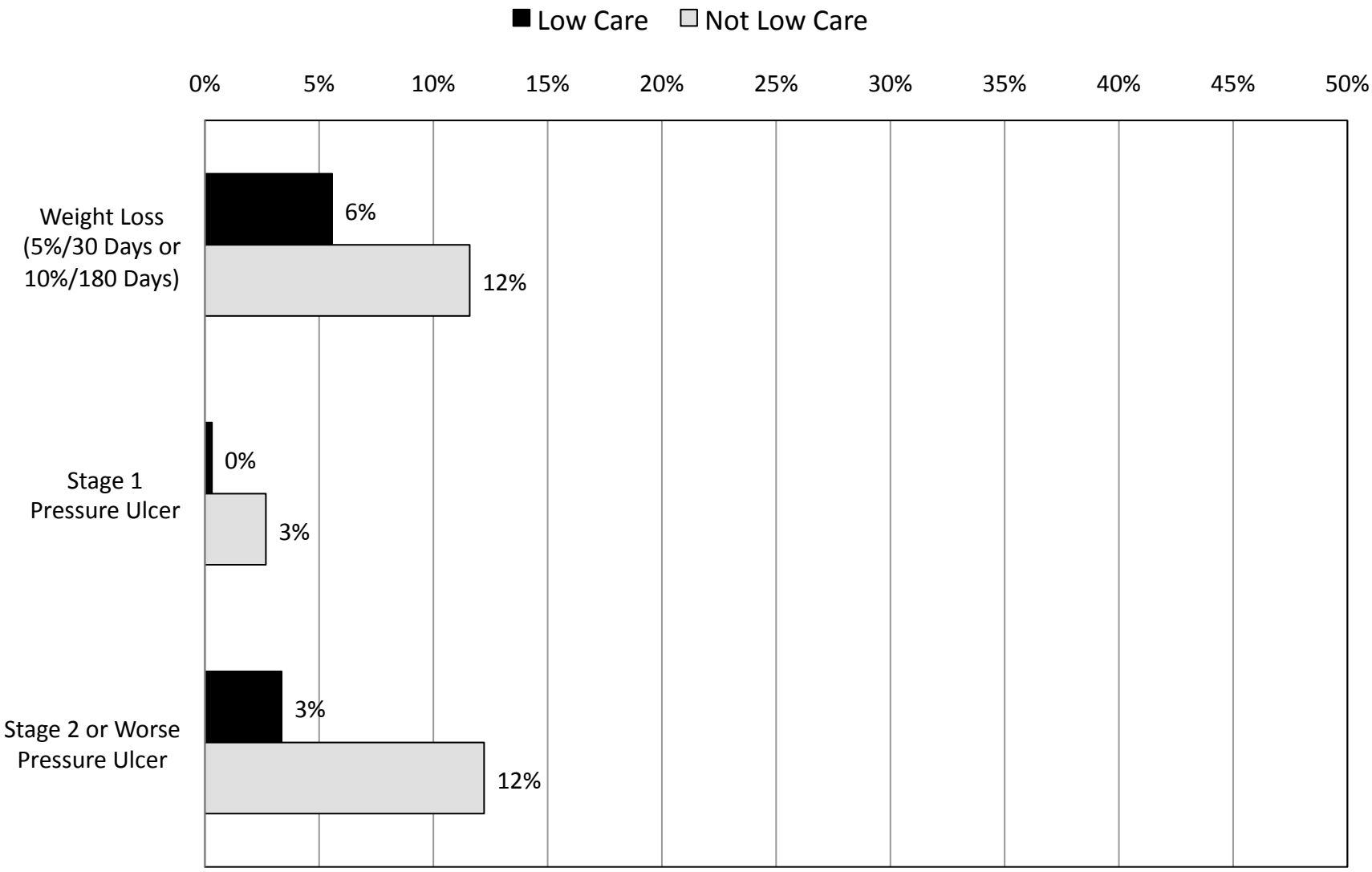
Source: 1st Quarterly MDS Assessment, 2008

Figure 3.13: Falls/Fractures by Low Care Status



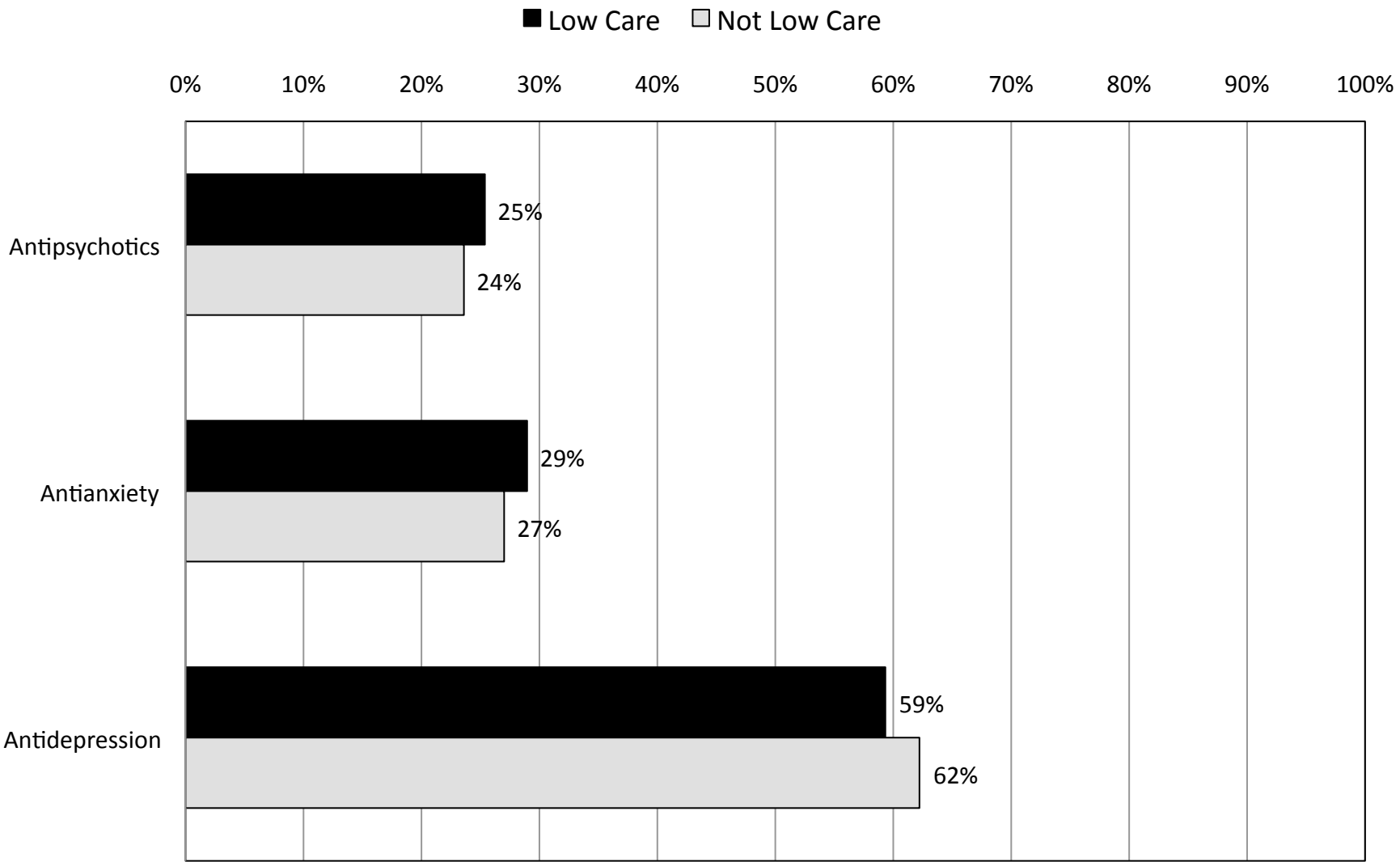
Source: 1st Quarterly MDS Assessment, 2008

Figure 3.14: Weight Loss and Pressure Ulcers by Low Care Status



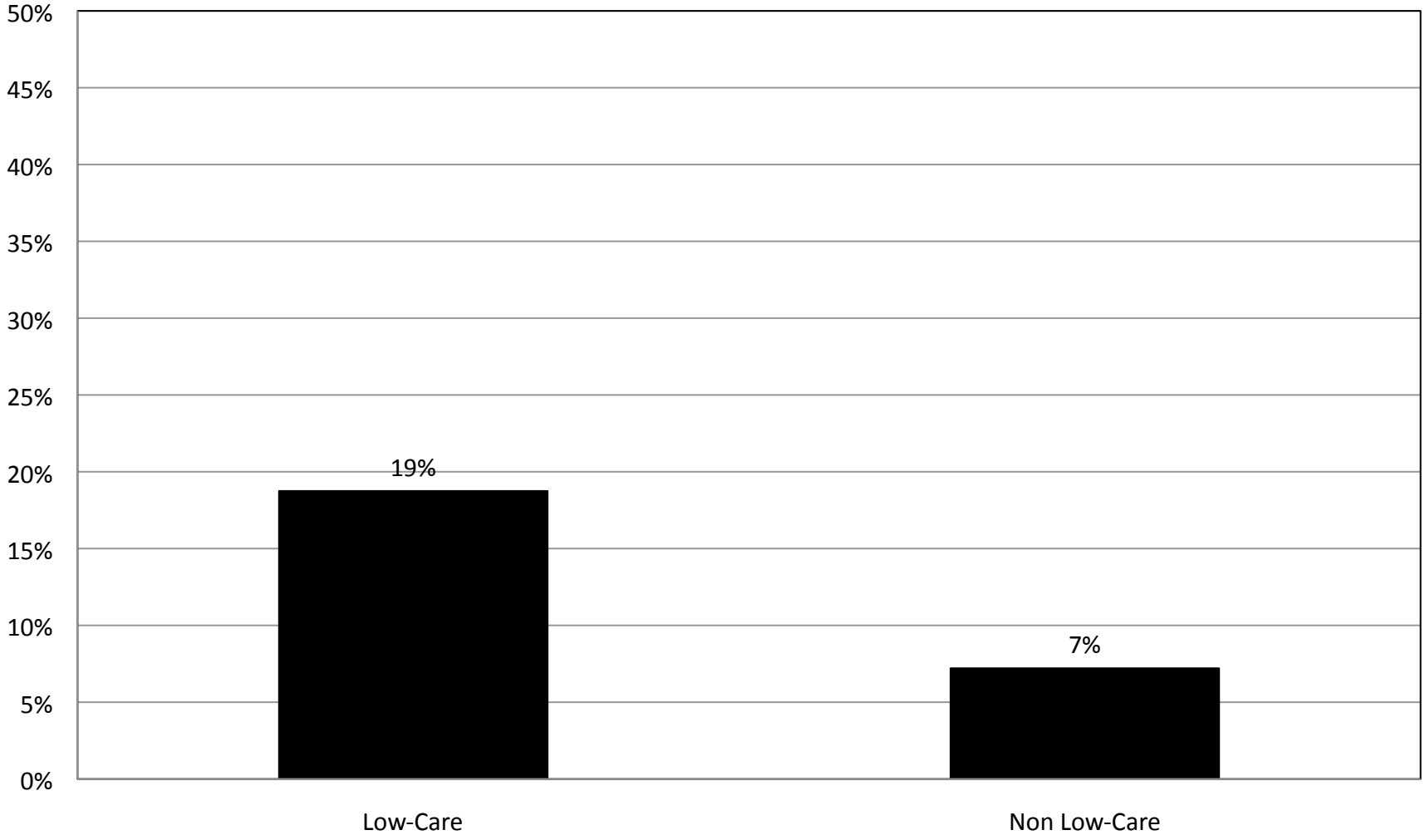
Source: 1st Quarterly MDS Assessment, 2008

Figure 3.15: Received Psychotropic Medications by Low Care Status



Source: 1st Quarterly MDS Assessment, 2008

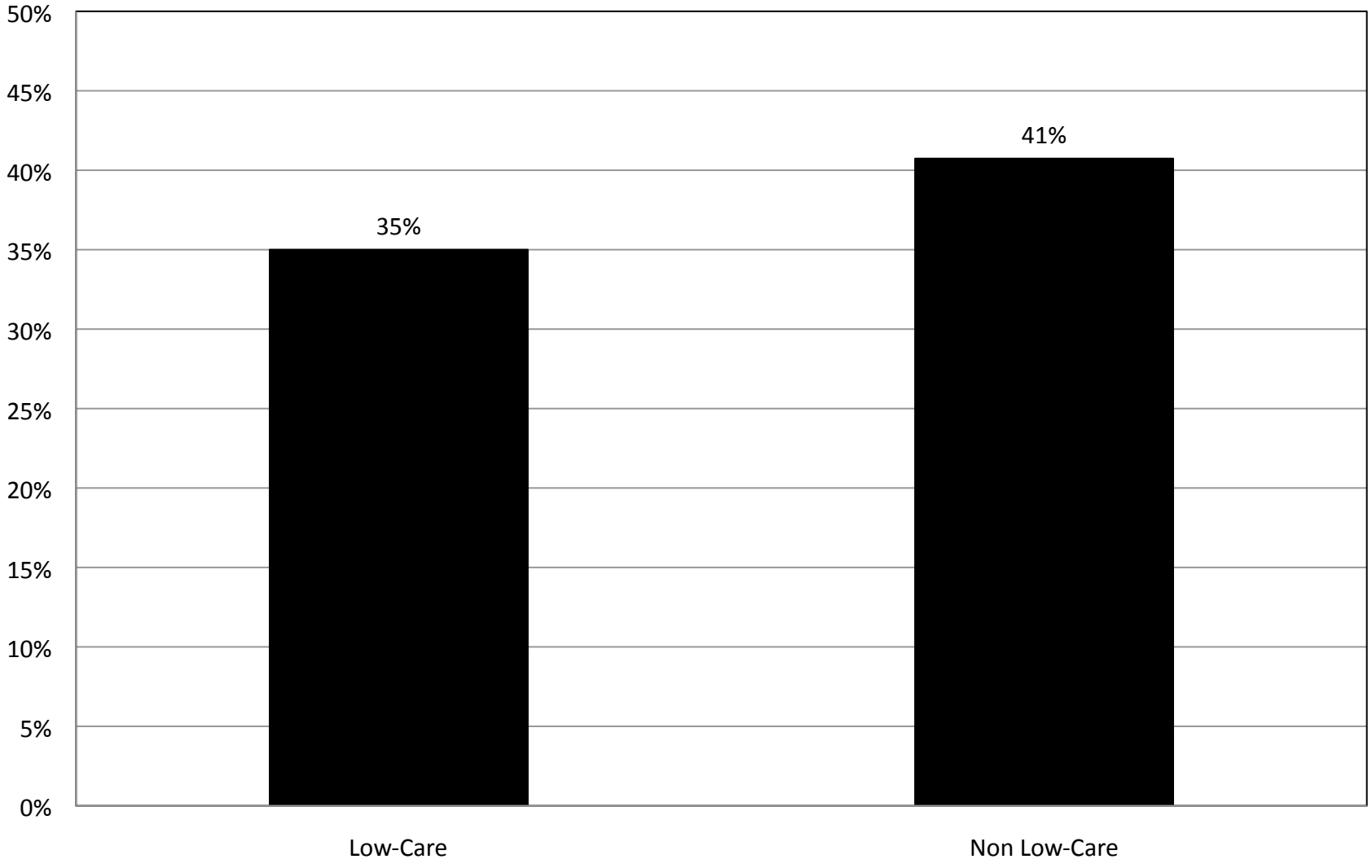
Figure 3.16: Record of Mental Health Problems* by Low Care Status



Source: MDS Admission Assessment, 2008

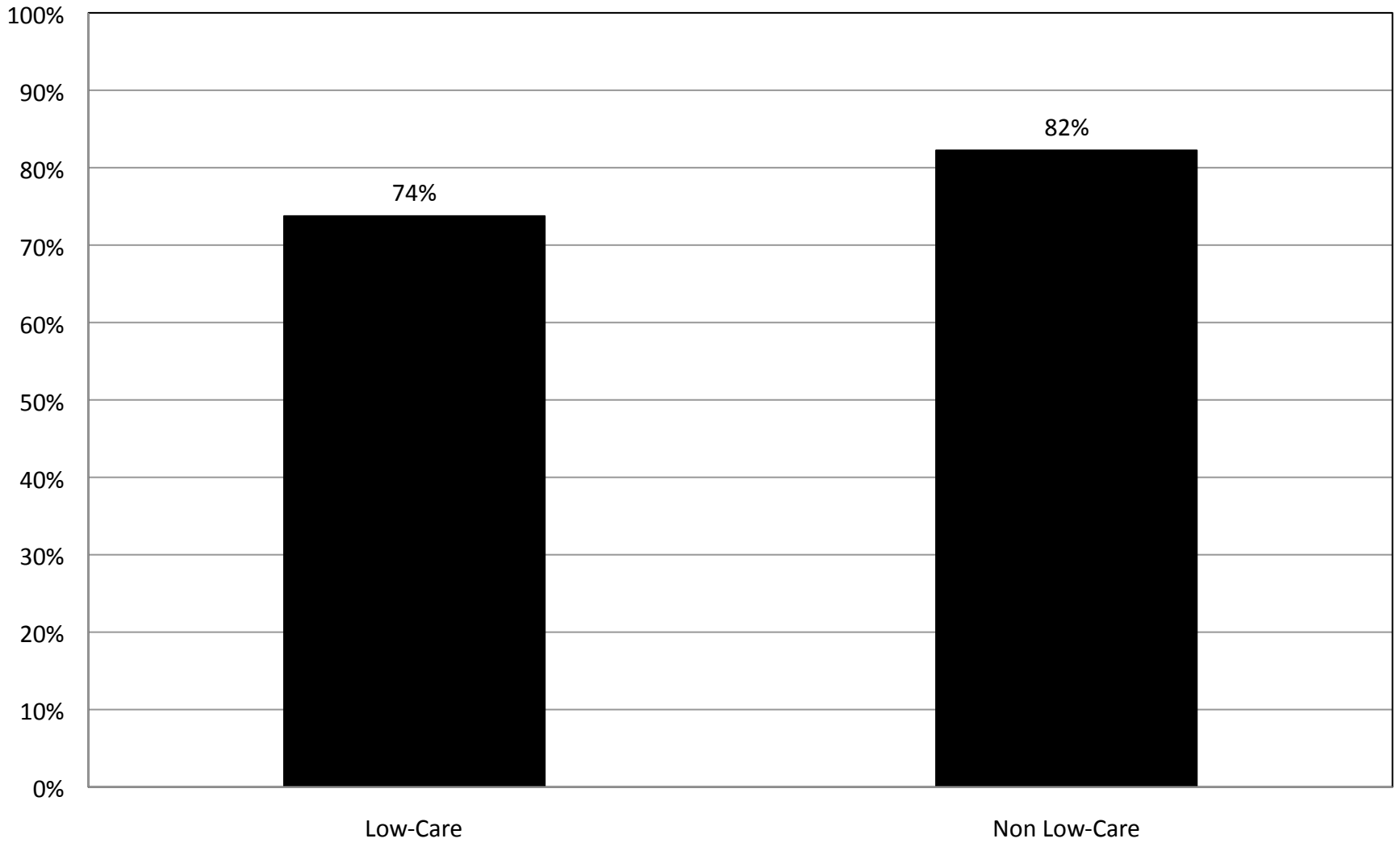
* Includes history of mental retardation, mental illness, or developmental disability problem.

Figure 3.17: Lived Alone Prior to NH Entry by Low Care Status



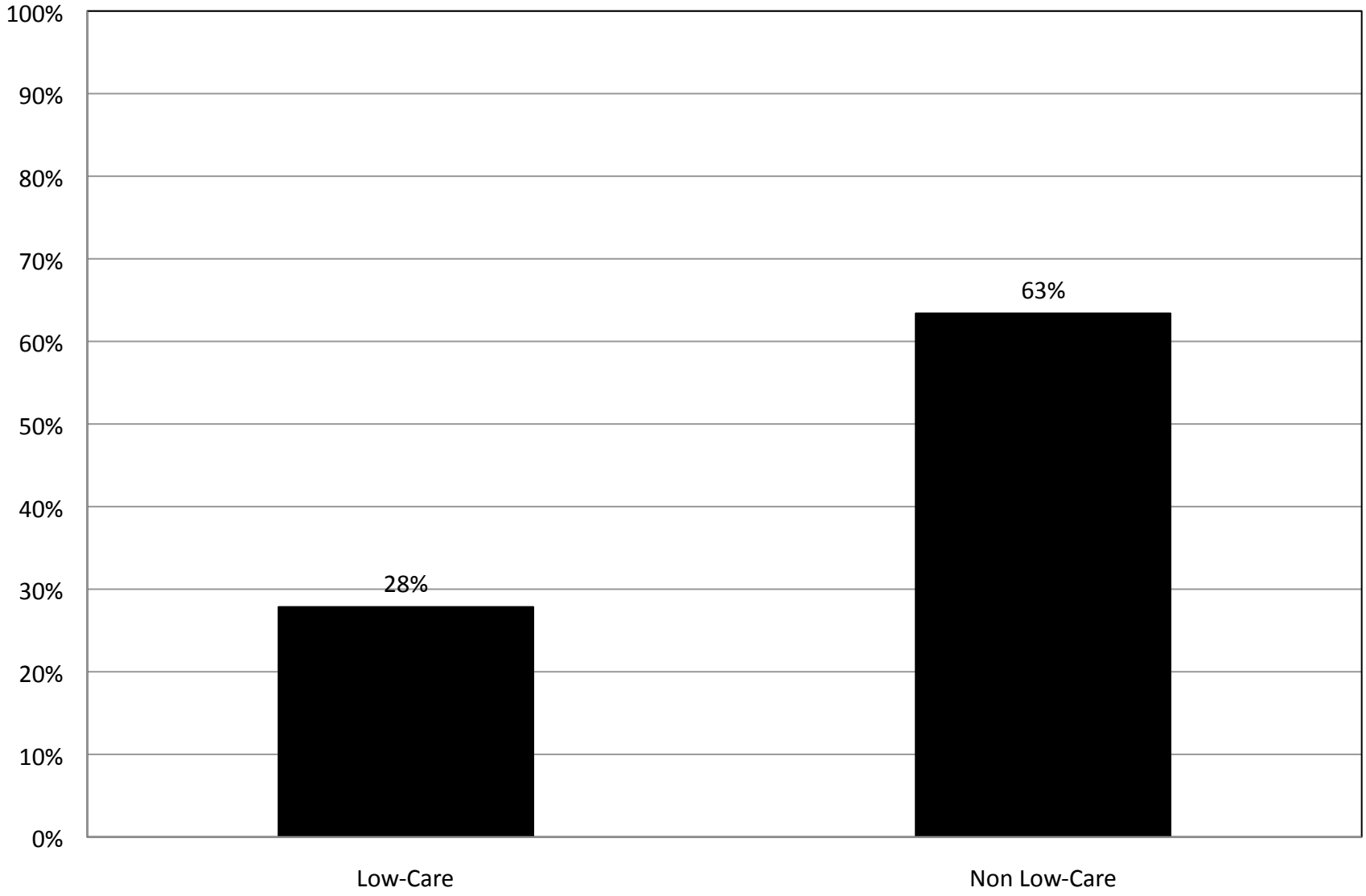
Source: MDS Admission Assessment, 2008

Figure 3.18: Daily Contact with Relatives/Friends Prior to NH Entry by Low Care Status



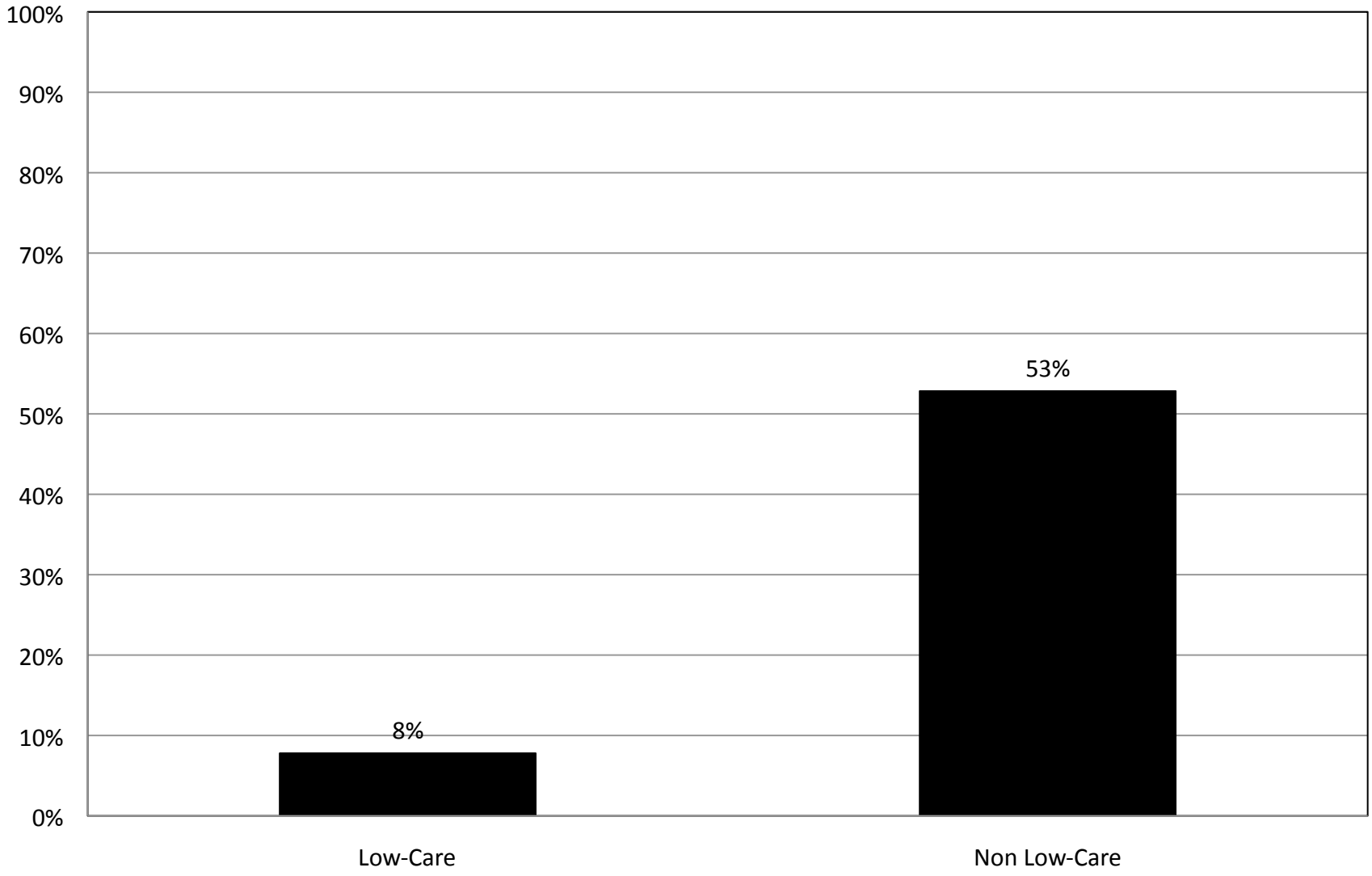
Source: MDS Admission Assessment, 2008

Figure 3.19: Indicated Preference to Return to Community by Low Care Status



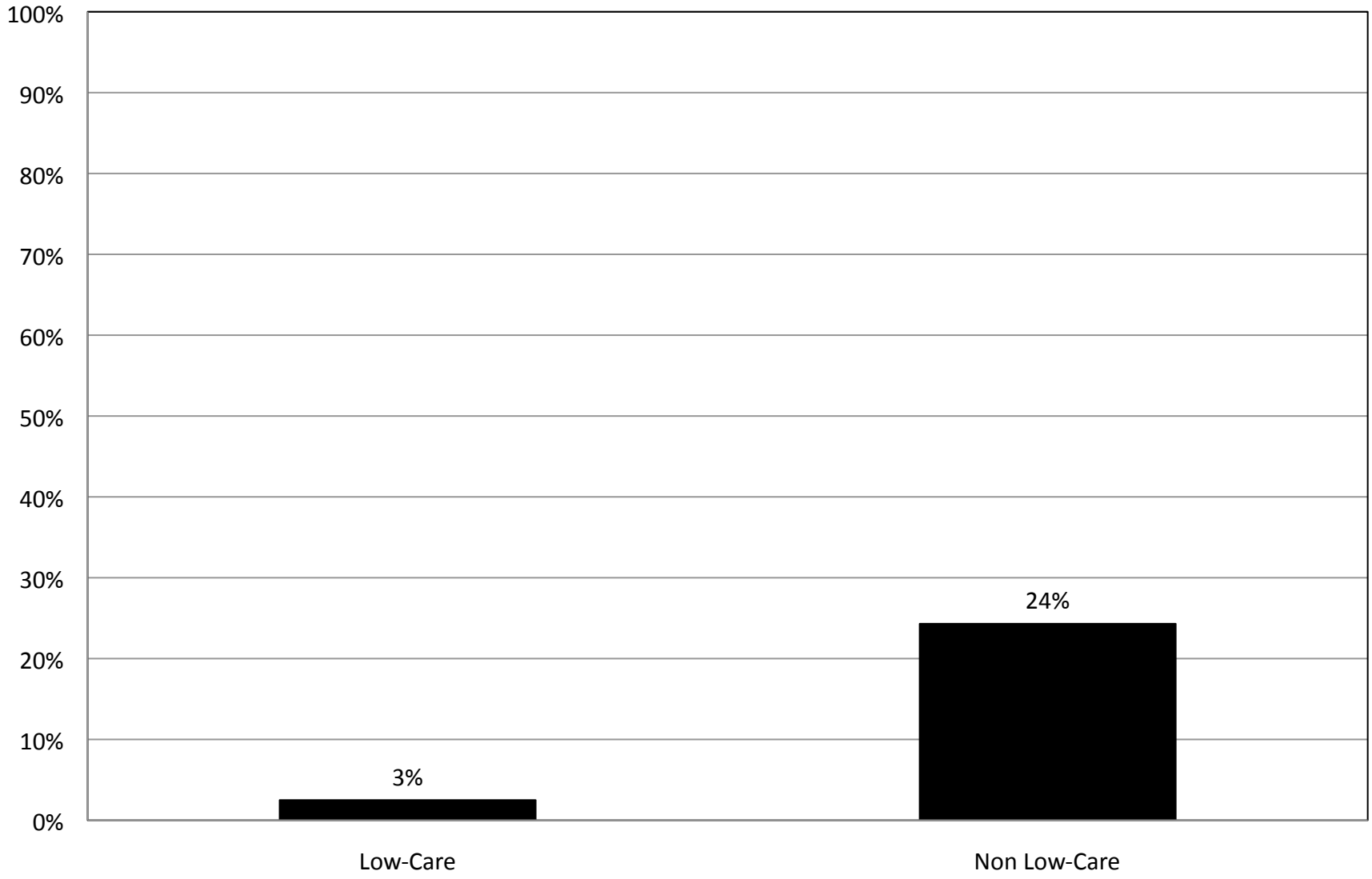
Source: MDS Admission Assessment, 2008

Figure 3.20: Has Support to Return to Community by Low Care Status



Source: MDS Admission Assessment, 2008

Figure 3.21: Discharge Potential (LT 90 days) at NH Entry by Low Care Status



Source: MDS Admission Assessment, 2008

SECTION IV:

Discharges and Readmission to Nursing Homes in 2008

Table 4.1: Persons discharged from NH and readmitted in 2008

	New Admits in 2008	Admitted before 2008
Total N = 8,913	N = 2,159 (24.2%)	N = 6,754 (75.8%)
Discharged from NH then Readmitted in 2008, N (%)	633 (29.3%)	659 (9.8%)
N with sufficient information to determine time in community between 1st and 2nd NH stays in 2008	N = 475	N = 433

Table 4.2a: New Admits, 2008: Time spent in the community before readmission by discharge destination after first 2008 NH stay.

New Admits in 2008 and with data available on time in community (N=475)

Time Between Readmission and 1st Discharge	First 2008 Discharge Location				
	Home N (%)	RC/ALF N (%)	Hospital N (%)	Other N (%)	Total N (%)
Less than 30 days	96 (36.4%)	8 (29.6%)	118 (84.3%)	33 (75.0%)	255 (53.7%)
Between 30 and 60 days	48 (18.2%)	12 (44.4%)	14 (10.0%)	4 (9.1%)	78 (16.4%)
Between 60 and 90 days	41 (15.5%)	3 (11.1%)	1 (0.7%)	1 (2.3%)	46 (9.7%)
More than 90 days	79 (29.9%)	4 (14.8%)	7 (5.0%)	6 (13.6%)	96 (20.2%)
Total N (%)	264 (61.3%)	27 (6.3%)	140 (32.5%)	44 (10.2%)	475 (100.0%)

Table 4.2b: Admitted prior to 2008: Time spent in the community before readmission by discharge destination after first 2008 NH stay.

Admitted before 2008 and with data available on time in community (N = 433)

	First 2008 Discharge Location				
Time Between Readmission and 1st discharge	Home N (%)	RC/ALF N (%)	Hospital N (%)	Other N (%)	Total N (%)
Less than 30 days	23 (22.7%)	3 (19.5%)	214 (87.3%)	46 (64.8%)	286 (66.1%)
Between 30 and 60 days	23 (22.8%)	4 (24.8%)	22 (9.0%)	5 (7.0%)	54 (12.5%)
Between 60 and 90 days	13 (12.9%)	0 (0.0%)	4 (1.6%)	3 (4.2%)	20 (4.6%)
More than 90 days	42 (41.6%)	9 (55.7%)	5 (2.1%)	17 (23.9%)	73 (16.9%)
Total N (%)	101 (23.3%)	16 (3.7%)	245 (56.0%)	71 (16.4%)	433 (100.0%)

SUMMARY OF FINDINGS

• Our baseline *overview of the level of acuity of RI nursing home residents* with at least one Medicaid nursing home claim in 2008 indicate that residents who entered the nursing home prior to 2008 were more cognitively impaired and more dependent in ADLs than newly admitted residents, as assessed approximately three months following admission. New admits who entered with SNF were slightly more cognitively and ADL impaired than new admits from the community.

•*Long vs. Short Stay* A*ge over 80 and cognitive impairment* are more prevalent among new admits who become long stay (>90 days) residents than among residents discharged within 90 days. *Surprisingly, ADLs at admission do not differentiate who will ultimately become long vs. short stay, even among residents admitted from the community.*

•Furthermore, neither living alone nor having daily contact with relatives prior to nursing home entry is associated with long vs. short stay status. *However, residents who are admitted from the community and become long stay are much less likely to have the support to return to the community than short stay residents (43% vs. 73%).* The same is true for residents admitted with SNF (60% vs. 75%).

•Finally, assessed potential to be discharged within 90 days is particularly low among residents who become long stay. The difference is greater among residents admitted from the community (20% vs. 49%) vs. with SNF (27% vs. 47%).

SUMMARY OF FINDINGS

<u>Low Care vs. Non Low Care</u> A surprising finding of this report is the improvement of new admits from the community between Admission and Quarterly Assessments. **At admission, approximately 11% of new admits from the community who become long stay meet the broad definition of low care, but by 3 months post-admission the proportion who qualify as low care increases to 35%.**

•New admits with low care status at the 1st Quarterly MDS assessment have a moderate prevalence of cognitive impairment, but considerably lower than non-low care residents (CPS (range 0-6) averages 1.7 for low care vs. 2.4 non-low care). Furthermore, the Morris ADL scale (range 0-28) averages only 3.1 for low care residents vs. 15.4 for non-low care.

•Low care residents are somewhat younger than non-low care residents, and a higher proportion have a record of mental health problems, including developmental disabilities and serious mental illness. ***It is likely that low care residents with a history of mental health problems include a number of residents under the age of 65.*** **This is further supported by data indicating that low care patients are as likely as non-low care patients to receive psychotropic medications.**

SUMMARY OF FINDINGS

•Finally, "discharge potential" strongly differentiates low care from non-low care residents. Residents who are low care are much less likely to indicate a preference to return to the community (28% vs. 63%), to have the support to return to the community (8% vs. 53%), and to have their discharge projected to be within 90 days (3% vs. 24%) than non-low care residents.

•<u>Discharge and Readmission</u> The majority (61%) of New Admits who are discharged in 2008 and readmitted to the nursing home are discharged to home, while only 22% of residents admitted prior to 2008 who are discharged and readmitted are discharged to home.

•The vast majority of residents discharged to the hospital are readmitted to the nursing home within 30 days.

•In contrast, 36% of New Admits discharged home are readmitted within 30 days, and 30% remain in the community longer than 90 days before readmission; 23% of residents admitted prior to 2008 who are discharged to home are readmitted within 30 days, and 42% remain in the community longer than 90 days.

Implications for the Medicaid Program

Results of the comparison of residents who become long stay vs. those discharged within 90 days indicate that the primary predictor at admission of long stay status is not the *existence* of family members but the *ability or willingness* of family members to initiate care or to continue care for the resident in the community.

Residents who become long stay are more likely to be age 80 or older and to have cognitive impairment, although they are not more likely to be more dependent in ADLs at admission than residents who are discharged within 90 days. It is likely that many family members have already cared for these residents for extended periods of time and may not be willing or able to continue such care.

Community based services or alternative residential arrangements to supplement or substitute for family care may divert nursing home placement prior to admission for a number of older persons who would otherwise become long stay nursing home residents.

Implications for the Medicaid Program

However, a barrier for diversion of appropriate persons to community-based long term care services prior to admission is that the proportion of persons entering the nursing home who meet the definition of low care increases dramatically between admission and 1st Quarterly Assessment, approximately 90 days following admission.

Thus, screening for nursing home eligibility prior to admission may not be effective in diverting persons to community based long term care services. It is essential to "re-screen" residents who are not discharged within 60-90 days to determine if further residence in the nursing home is warranted according to residents' level of need.

The factor most strongly differentiating low care from non-low care long stay residents is the level of support by family members for return of the resident to the community. It is recommended that expansion of Medicaid assisted living capacity or "shared care" arrangements are most appropriate for the safe residence of older persons outside the nursing home whose family members cannot care for them and who are likely to be in the early stages of cognitive impairment.