

# Change in the Characteristics of the Rhode Island Medicaid Population in Nursing Homes 2008 - 2010

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

by

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# Objective

- To evaluate the impact of the RI Medicaid program's Real Choice System Transformation "rebalancing" activities on the acuity levels of the Medicaid nursing home population.

# DHS Activities to Rebalance LTC

- New Levels of Care: Highest, High, Preventive
- Standardized LOC Assessment Tool
- Nursing Home Transition Program
- CCC Nursing Home Diversion Program
- Discharge Planner Training Conferences
- I & R Material Development and Distribution
- Brochure and Online Education and Outreach to Consumers and Family Members
- New CB Option: Shared Living



# Methods

- 2 Data Sets Merged
  - RI Nursing Home MDS (2008, 2010 (Jan – Sept))
  - RI Medicaid NH claims (2008, 2010)
- Match Based on last 4 digits of SSN, DOB, and gender
- Match Rate
  - 2008–93%
  - 2010–99%
- *N* with NH MDS record and Medicaid NH claim
  - 2008– 8,913
  - 2010– 8,085

# Defining New Admissions

- **New Admits** are defined as persons with an admission in (2008, 2010) which was their first NH admission (based on a three year lookback), OR who had been discharged prior to (1/1/08, 1/1/10), and had a new admission in (2008,2010).

The remaining residents were admitted to a nursing home **Prior to (1/1/08, 1/1/10)**, and continued their stay into the (2008, 2010) calendar year.

- **Admitted with SNF** is defined as those residents newly admitted to a nursing home in the study year with Medicare SNF benefit following a hospitalization, and were determined by whether they had any MDS required by Medicare for SNF payment.
- **Admitted from Community** is defined as the remaining New Admits in the study year, and refers to those residents without an MDS required by Medicare for SNF payment.



# Defining Long Stay vs. Short Stay

- **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).
- **Short Stay Residents** are defined to have stays less than 90 days, and thus have no quarterly MDS assessment.
- **Caveat:** Short Stays may be overestimated because we lack data to determine length of stay for residents admitted toward the end of each study year.

# Defining “Low Care”

- **Low Care** was defined for NH residents using their first quarterly MDS assessment in 2008 (or 2010) for long stay residents, and the admission MDS assessment for short stay residents. The narrow and broad definitions of low care follows those used in Mor, Zinn, Gozalo et al. (2007, Health Affairs) based on the RUG v5.12 casemix classification index comprising 44 resource utilization categories, and is as follows:
  - **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.



# **SECTION I**

## **Population Parameters 2008 - 2010**



**Figure 1.1: Percent of RI Nursing Home Residents Who Are New Admits vs. Admitted Prior to Study Period**

■ 2008 (n = 8913)    ■ 2010 (n = 8085)

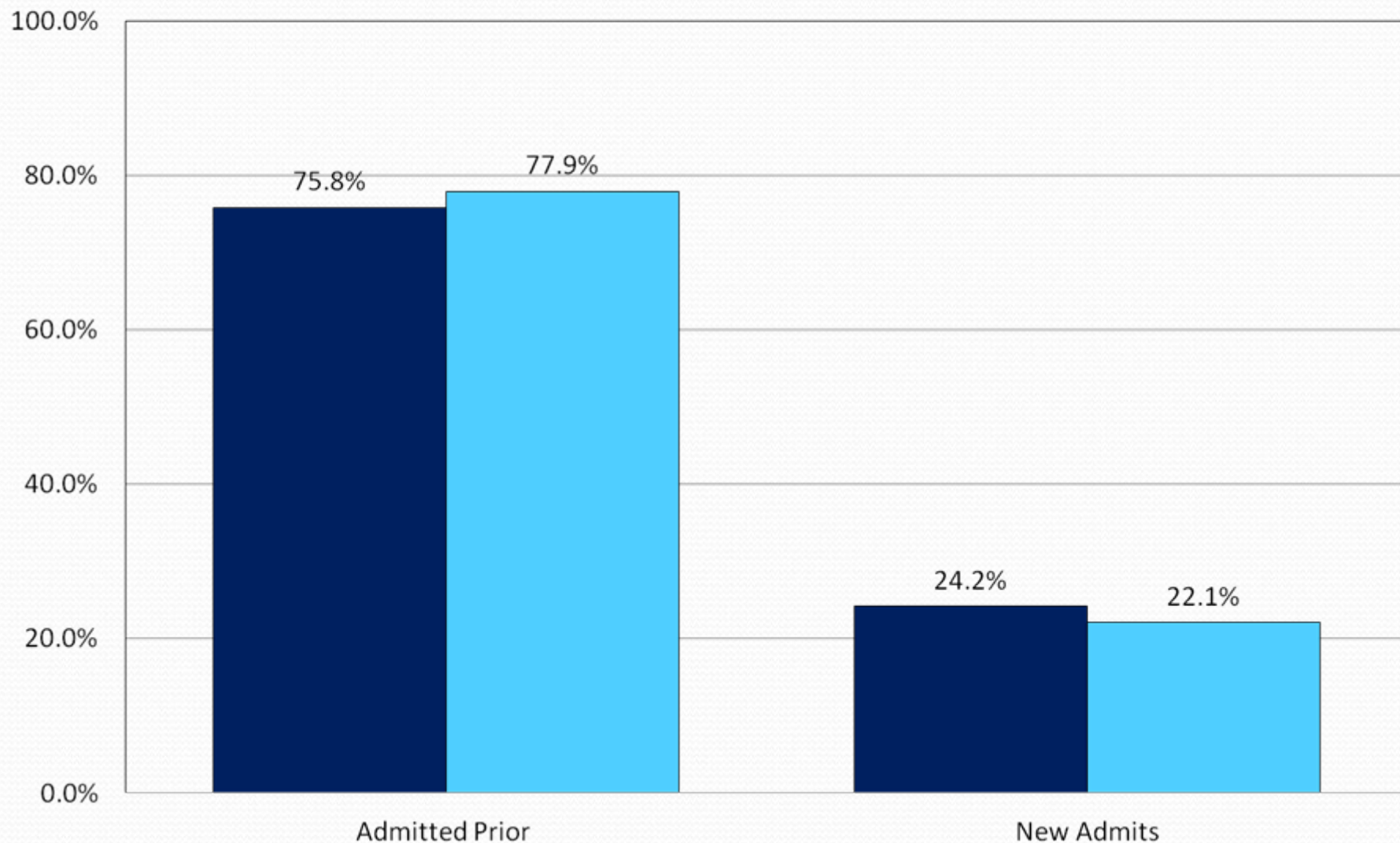
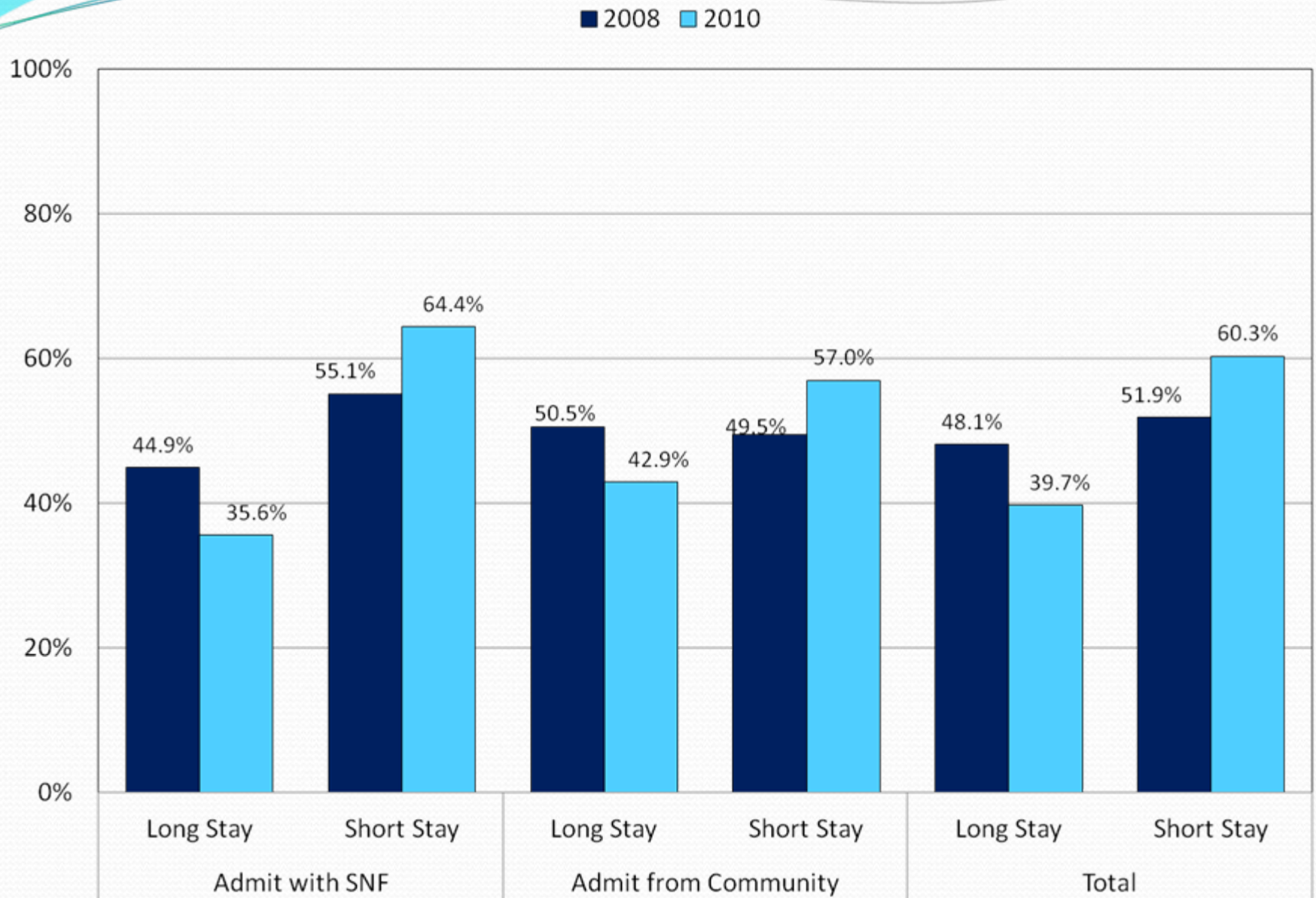


Figure 1.2: Percent New Admits in 2008 and 2010 by Length of Stay



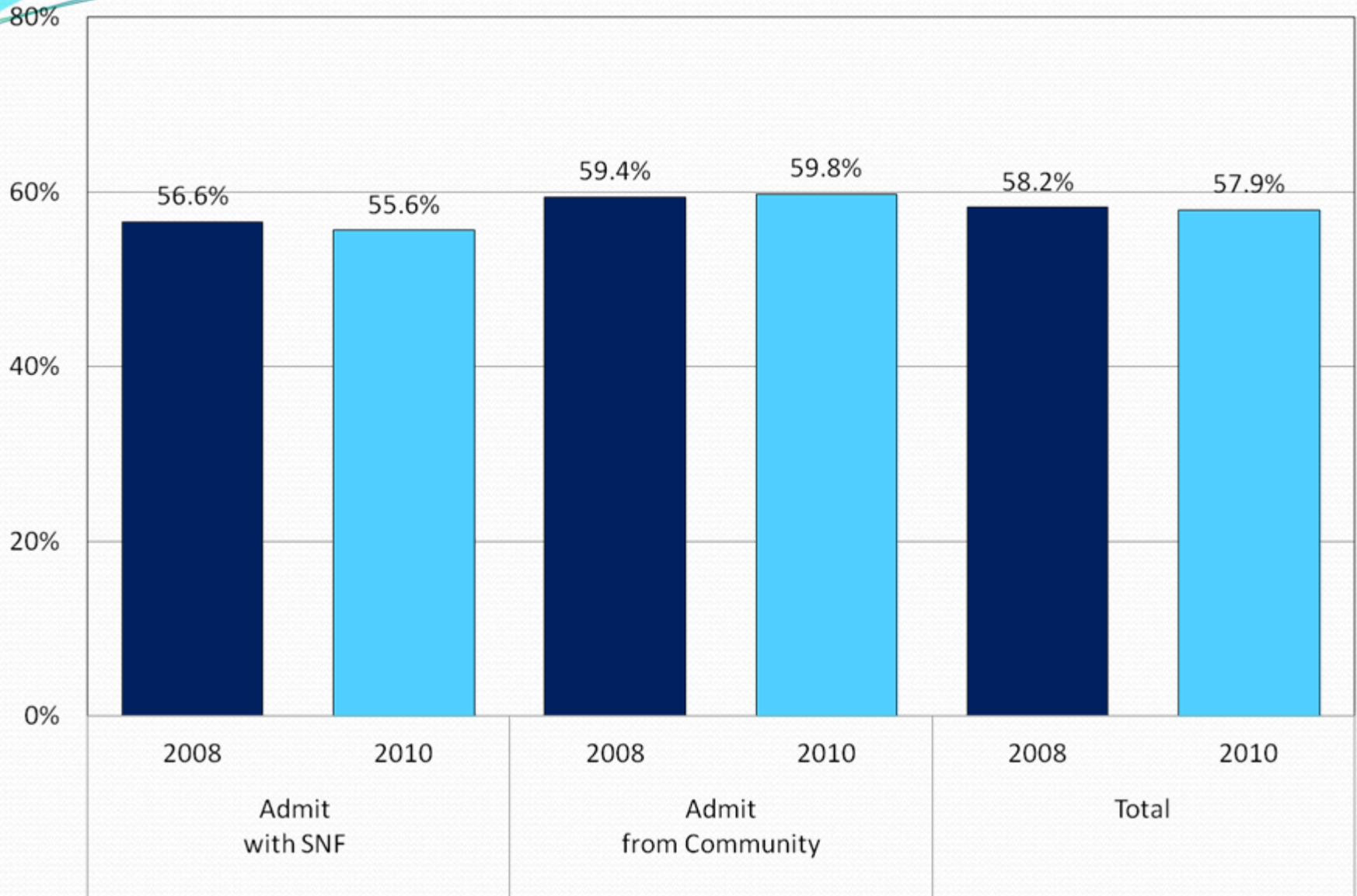


# **SECTION II**

**Change in Cognitive Status and ADL Impairment  
of New Nursing Home Admissions  
by Admission Cohorts  
(admitted with SNF vs. from the Community)  
2008 - 2010**

**All data from Residents' MDS Admission Assessment in 2008 & 2010**

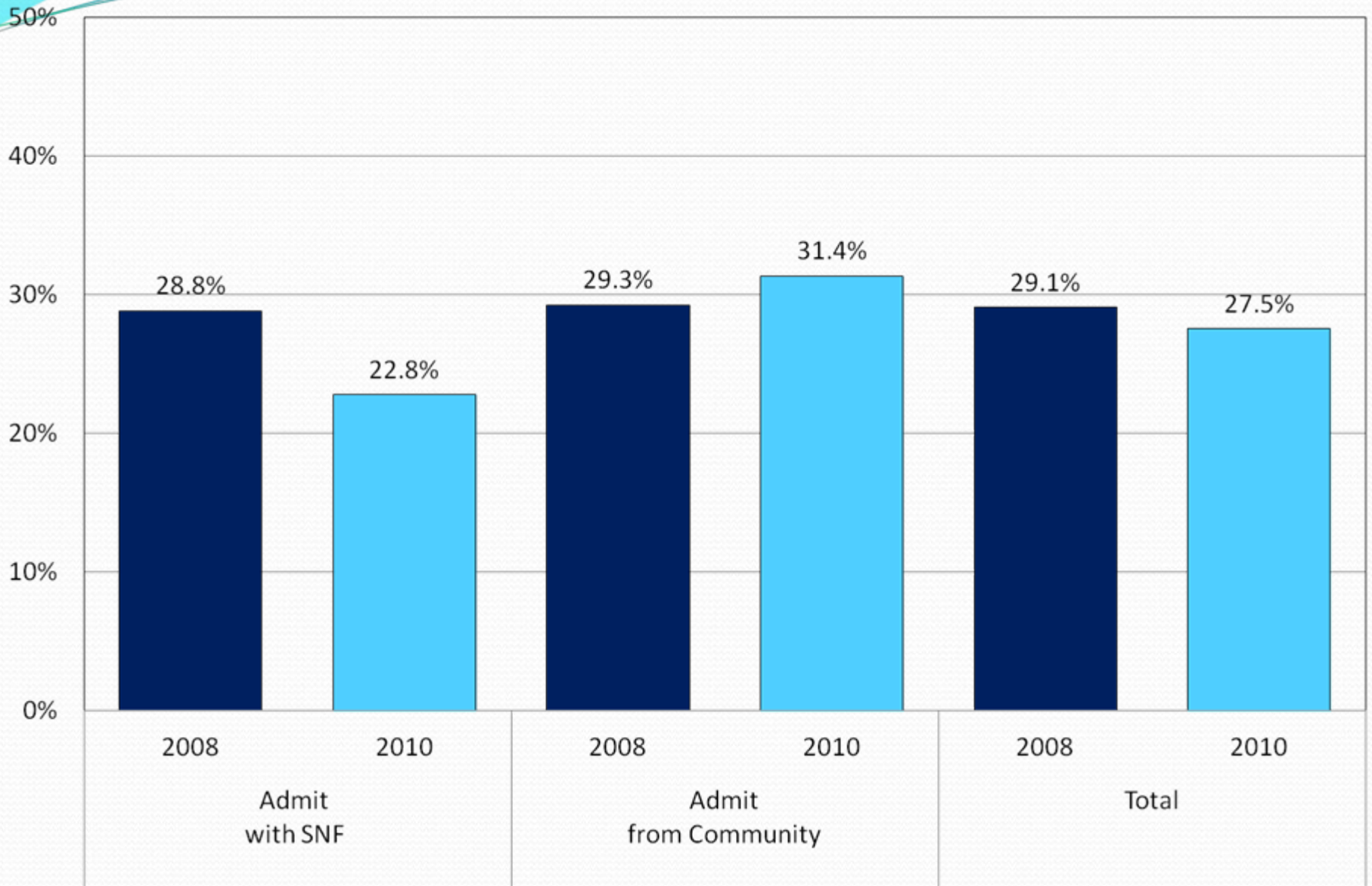
**Figure 2.1: Short-Term Memory Problem by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

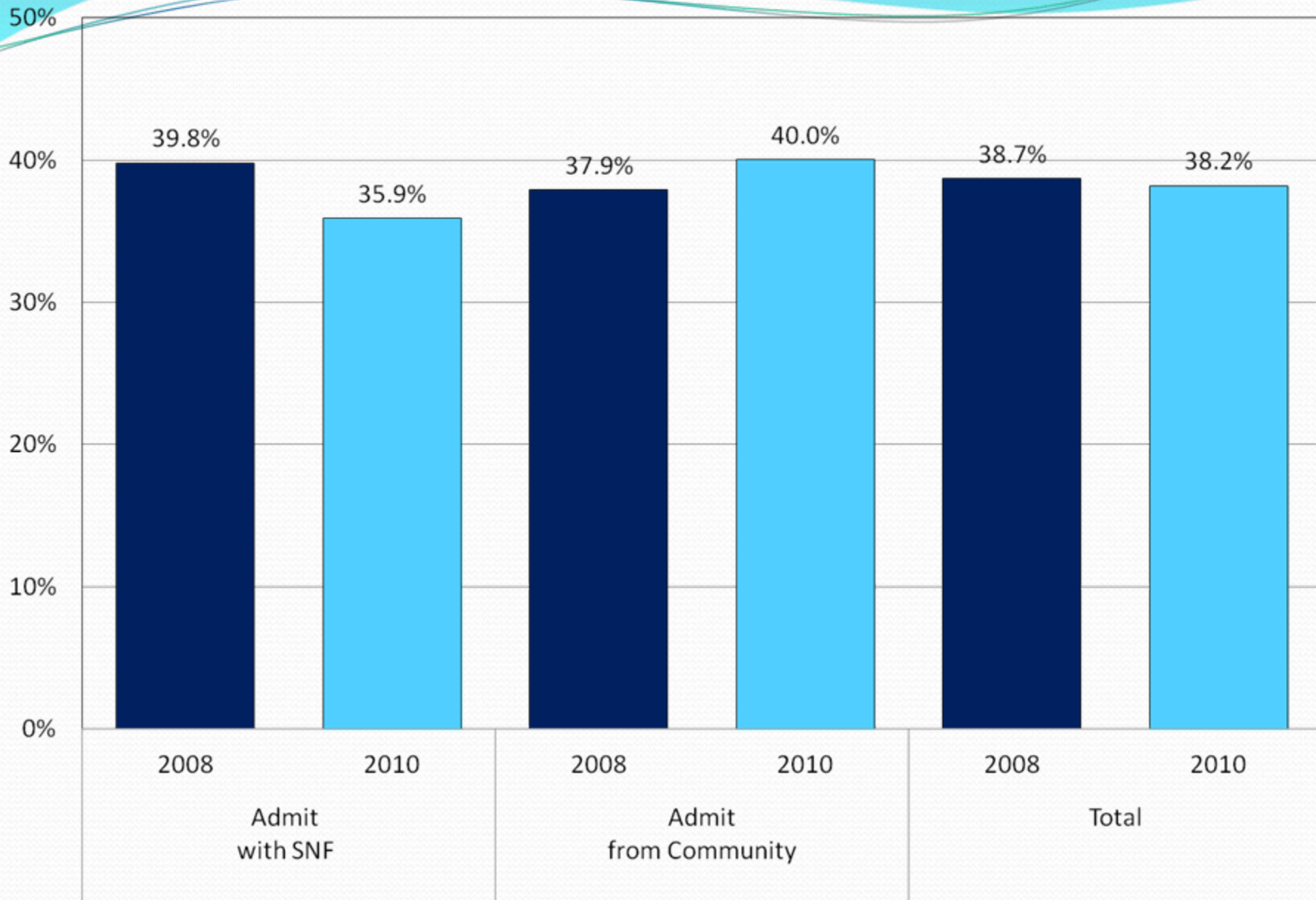


**Figure 2.2: Long-Term Memory Problem by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

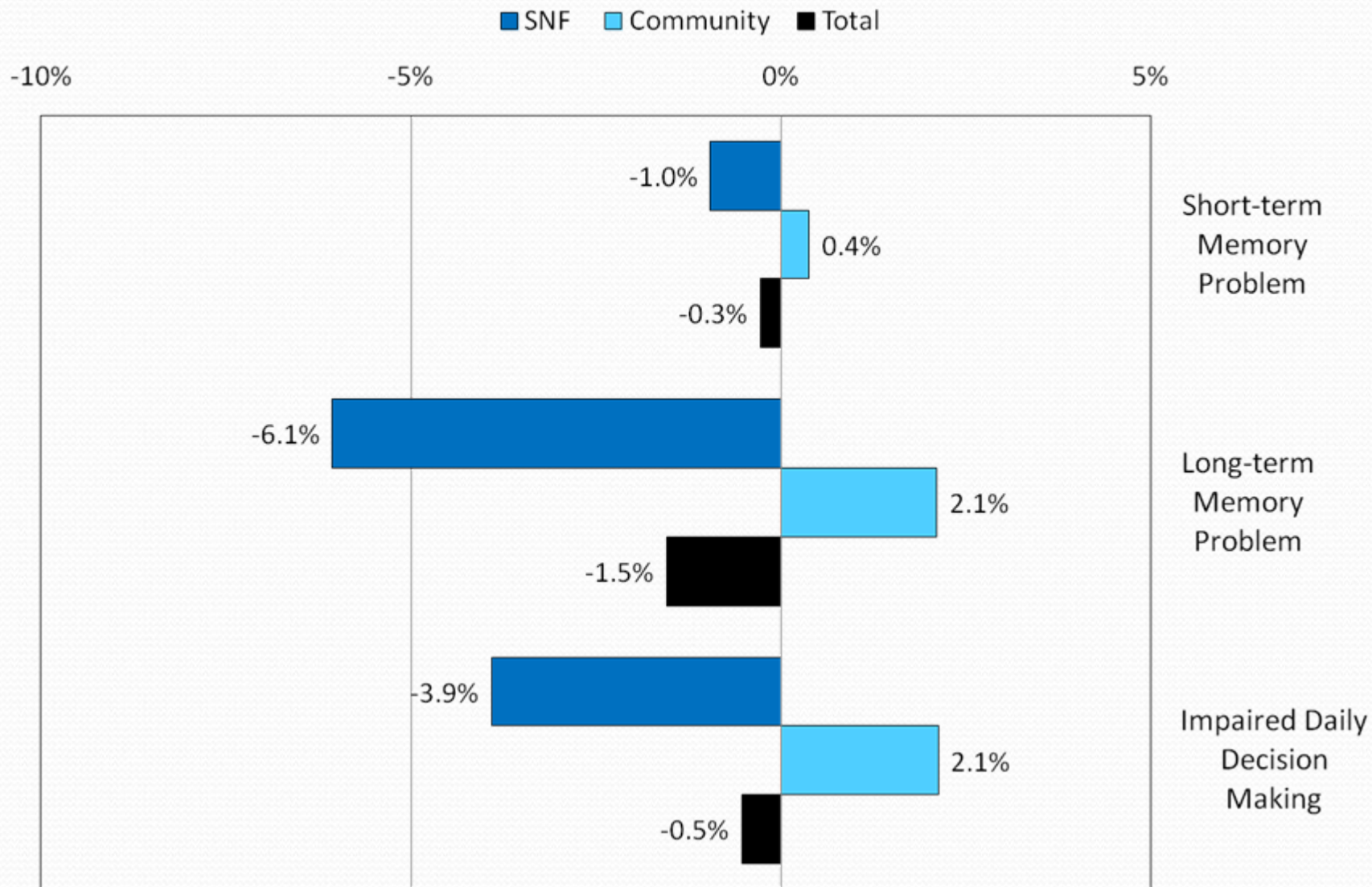
**Figure 2.3: Impaired Daily Decision Making by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

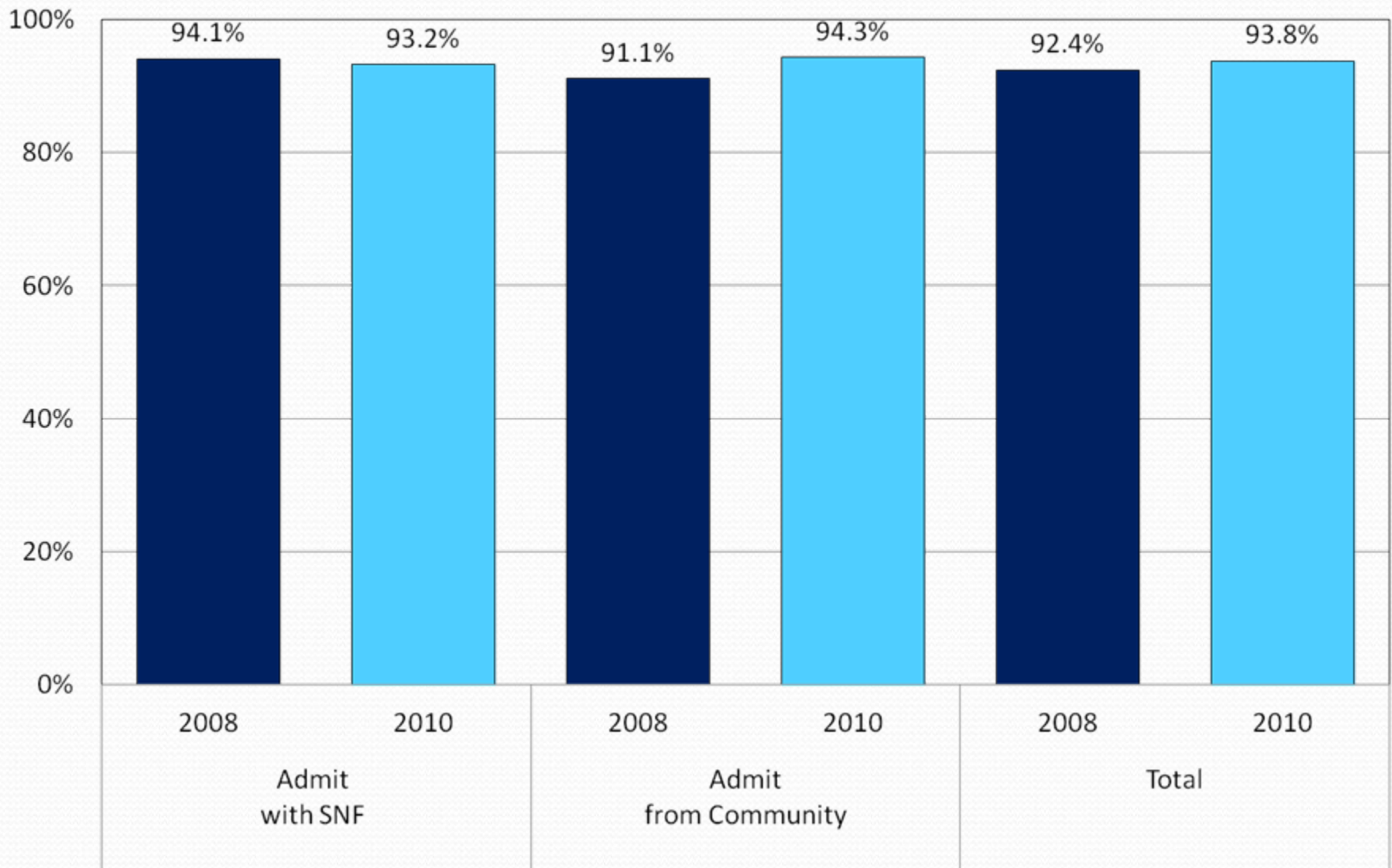


**Figure 2.4: Summary: Change (2008 to 2010) in Cognitive Measures  
by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

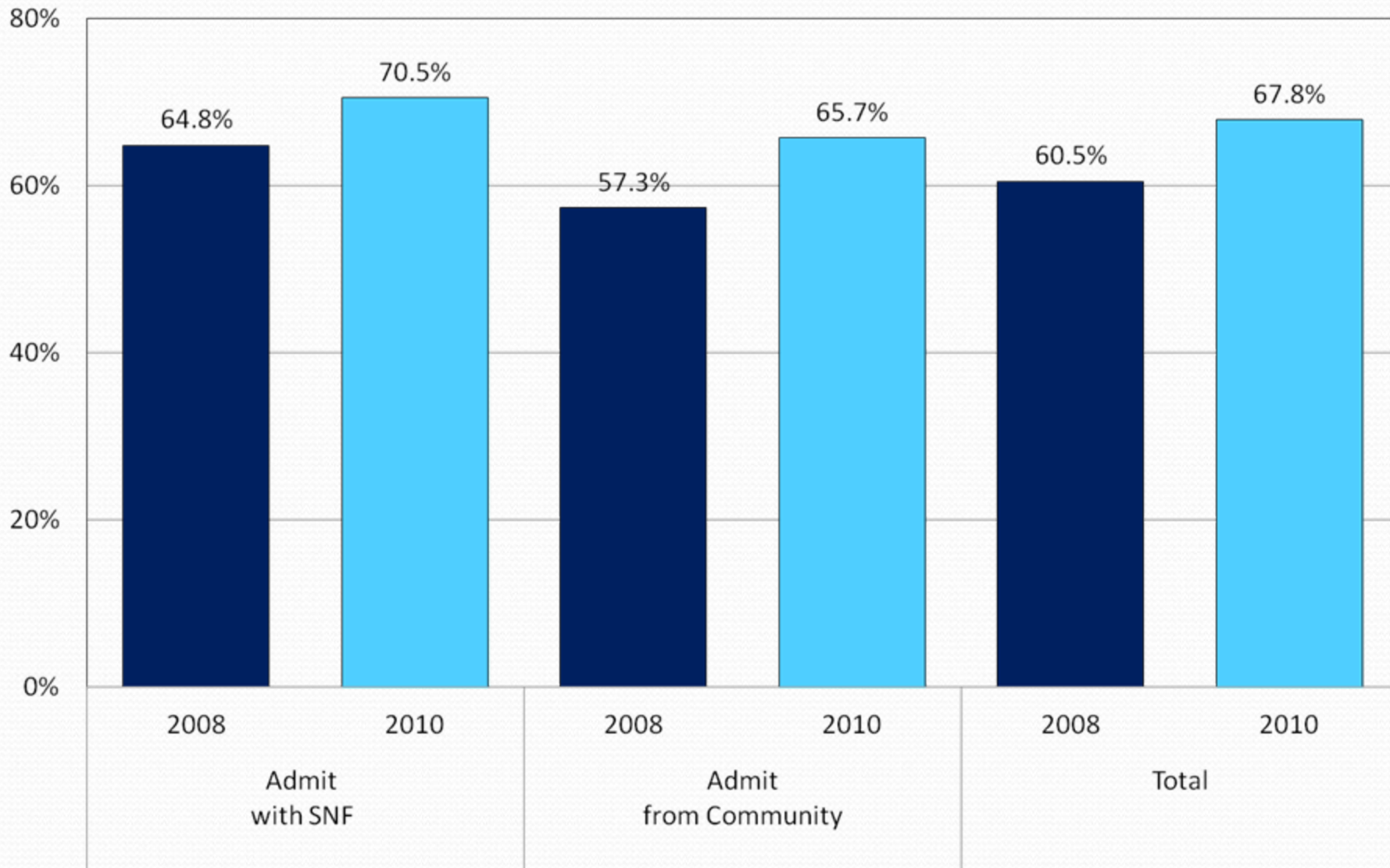
**Figure 2.5: Bathing-- Needs Extensive/Total Assistance in Past 7 Days by  
New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

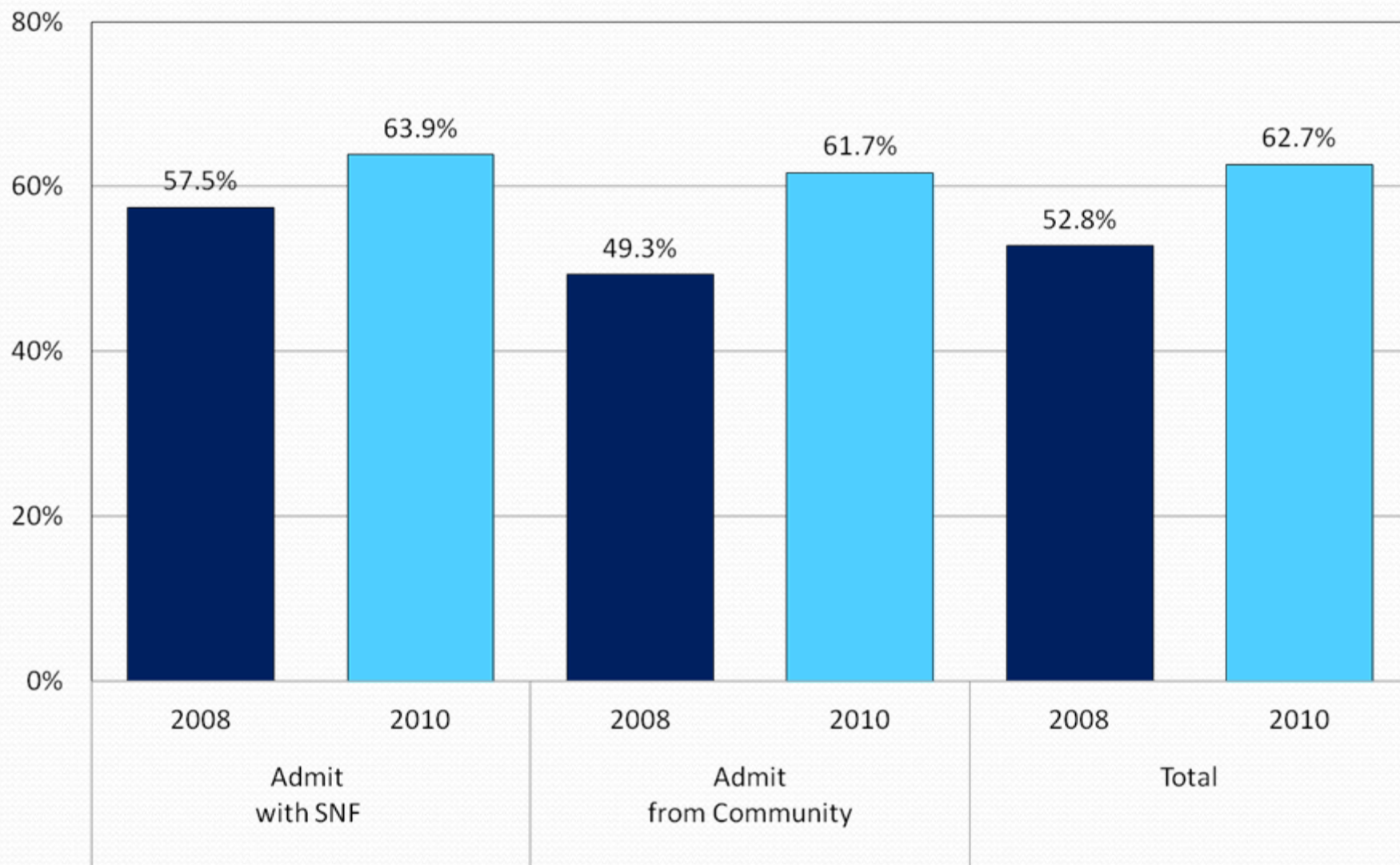


**Figure 2.6: Dressing-- Need Extensive/Total Assistance in Past 7 Days by  
New Admission Cohorts**



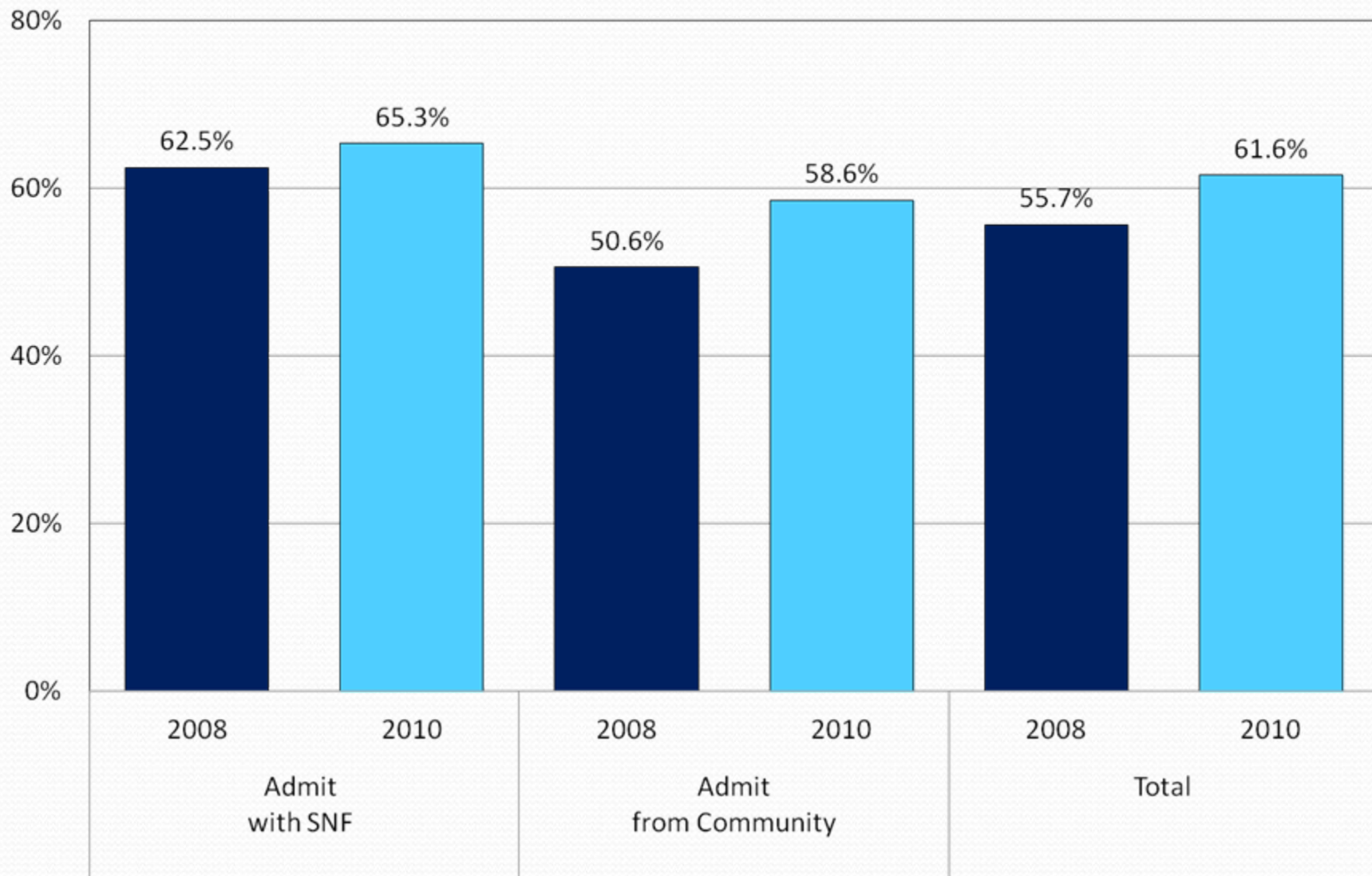
**Source: MDS Admission Assessment, 2008 & 2010**

**Figure 2.7: Personal Hygiene-- Need Extensive/Total Assistance in Past 7 Days by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

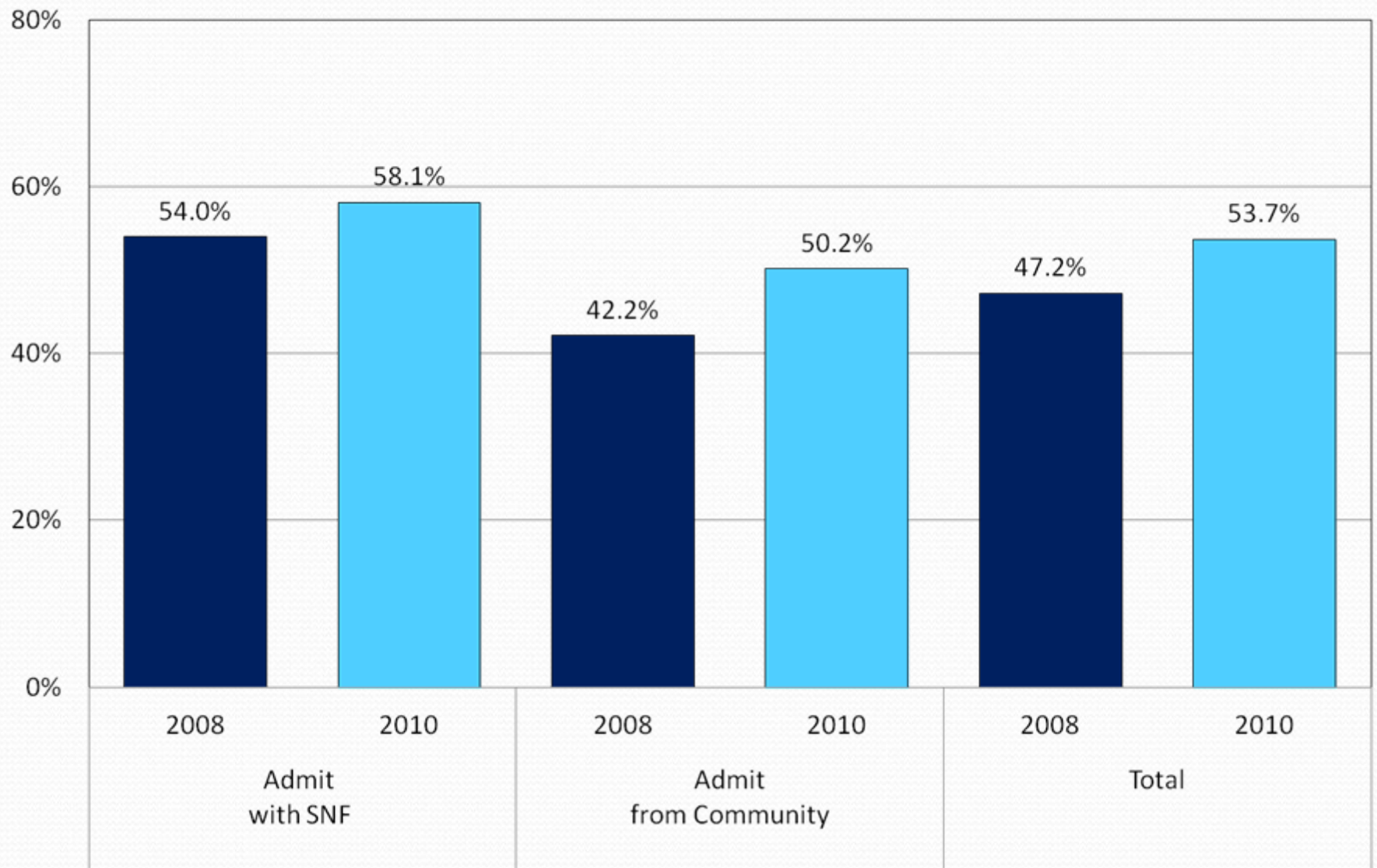
**Figure 2.8: Toileting-- Need Extensive/Total Assistance in Past 7 Days  
by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

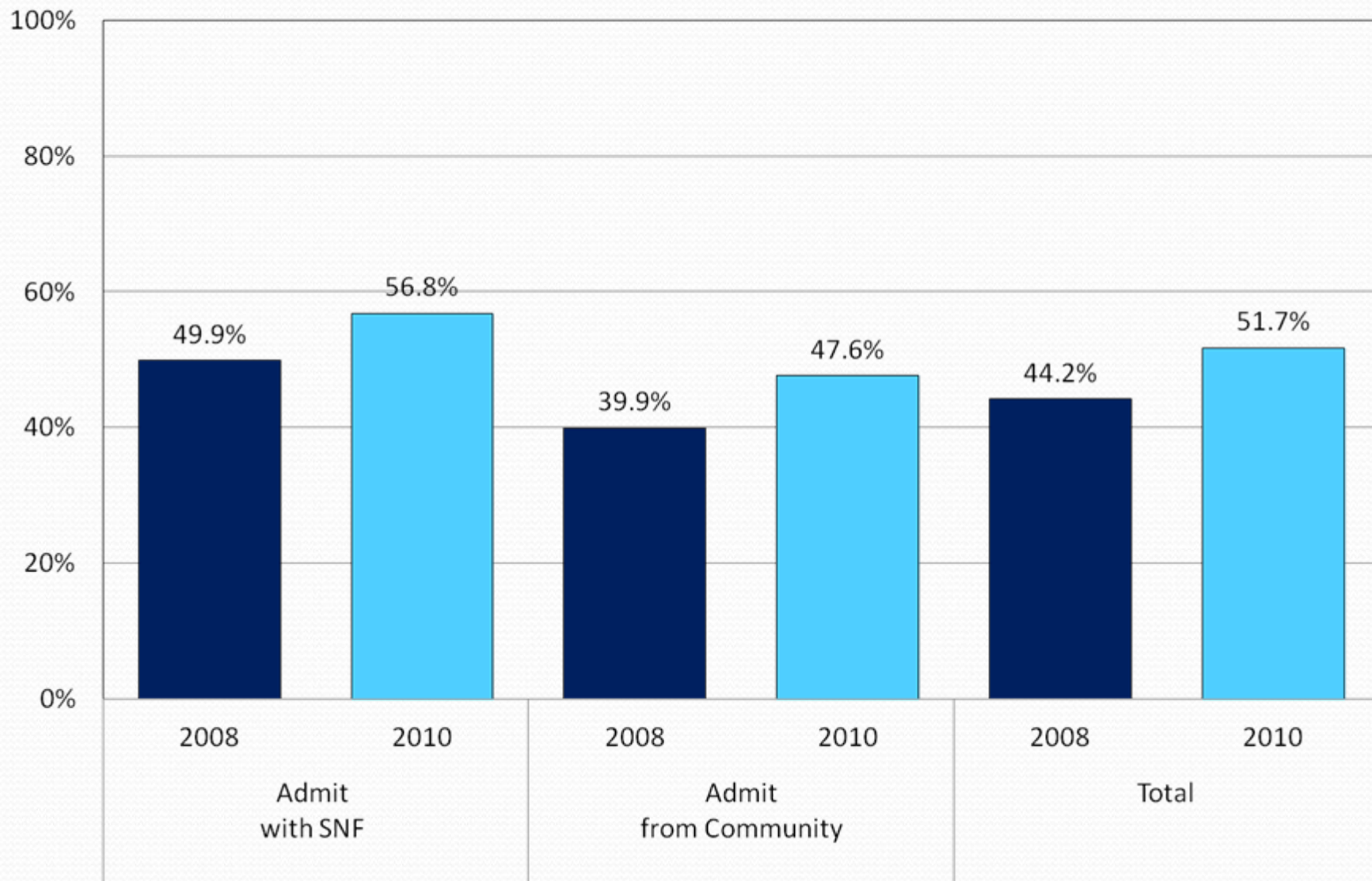


**Figure 2.9: Transfer-- Need Extensive/Total Assistance in Past 7 Days by  
New Admission Cohorts**



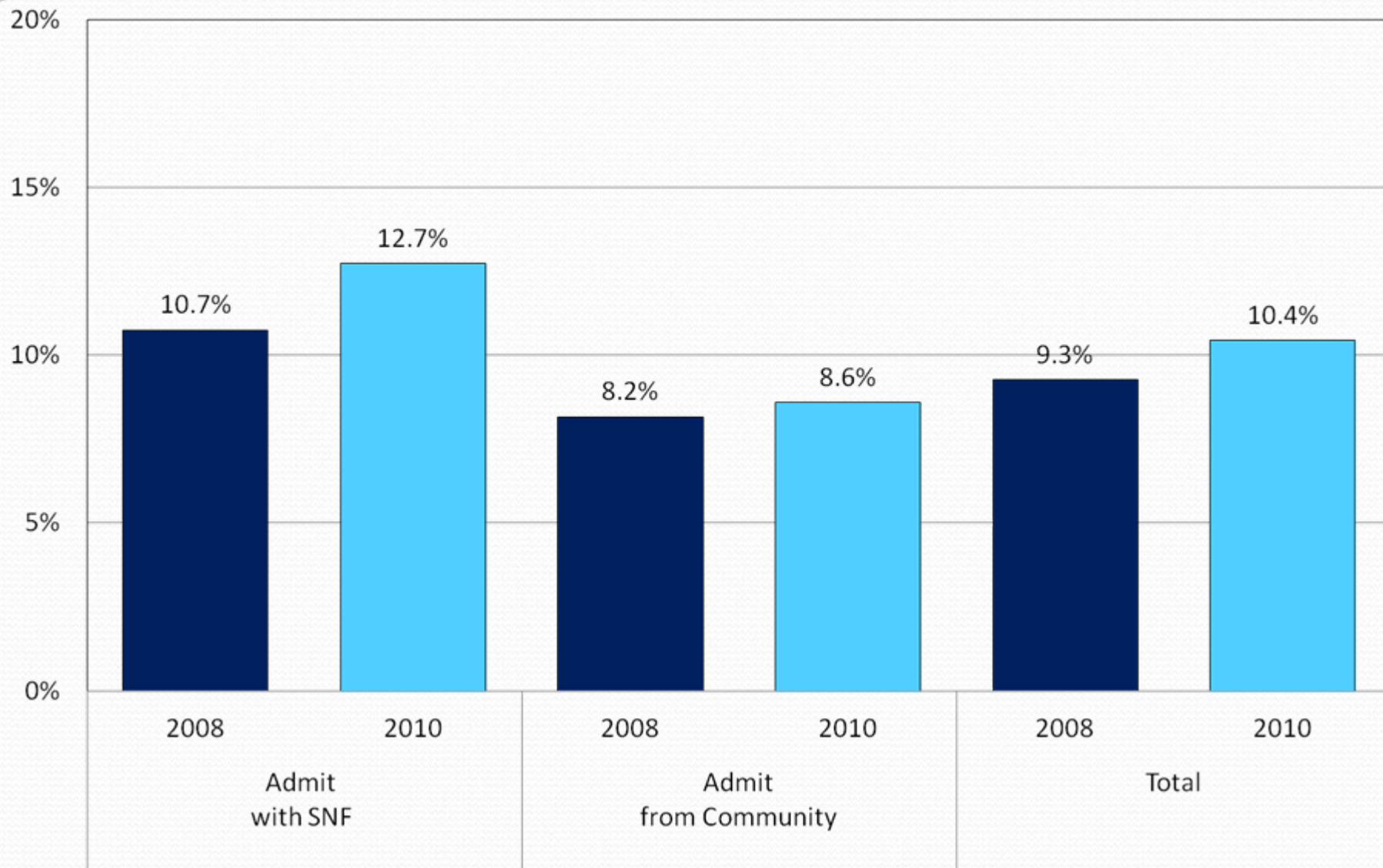
**Source: MDS Admission Assessment, 2008 & 2010**

**Figure 2.10: Bed Mobility-- Need Extensive/Total Assistance in Past 7 Days by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

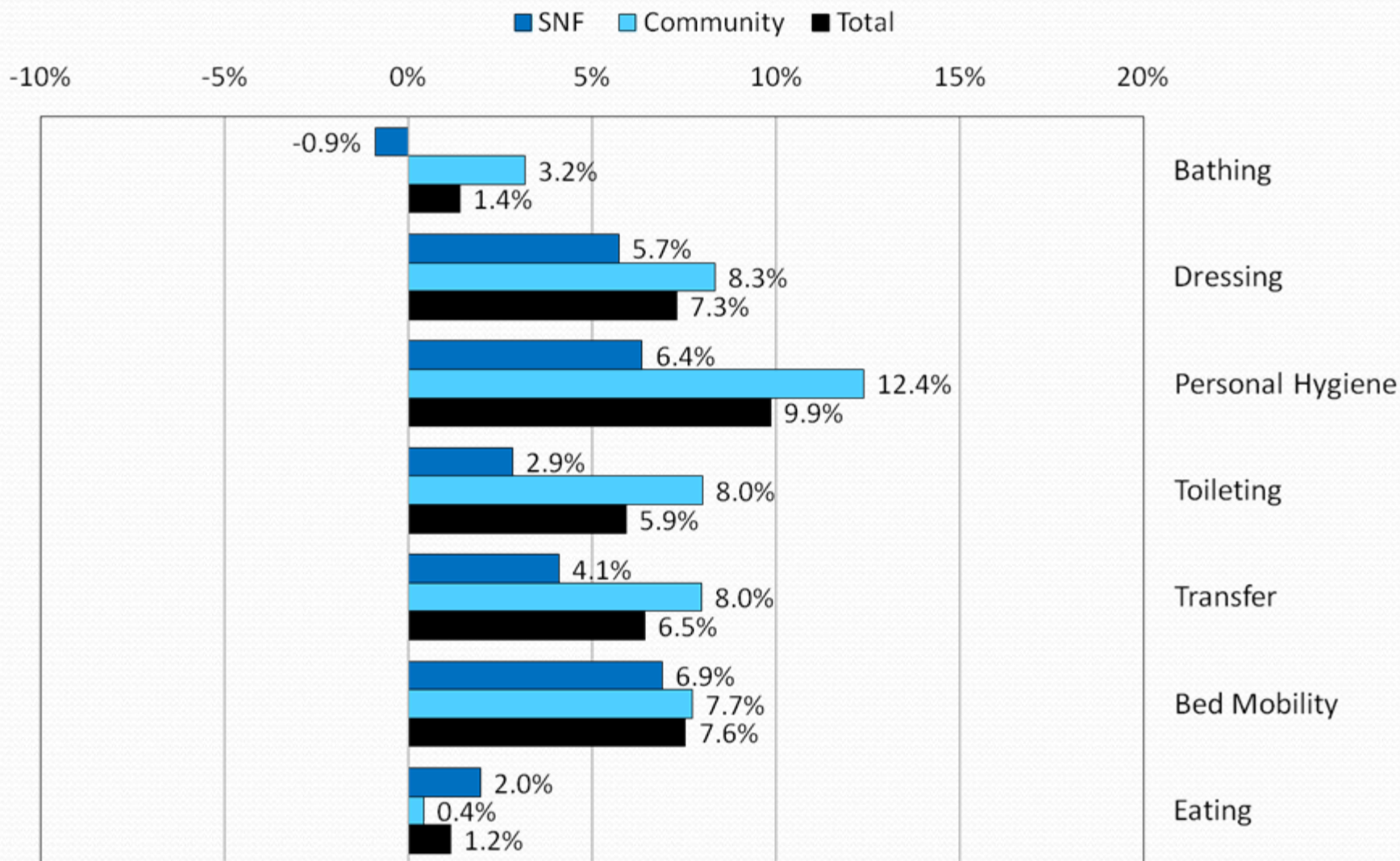
**Figure 2.11: Eating-- Need Extensive/Total Assistance in Past 7 Days by  
New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

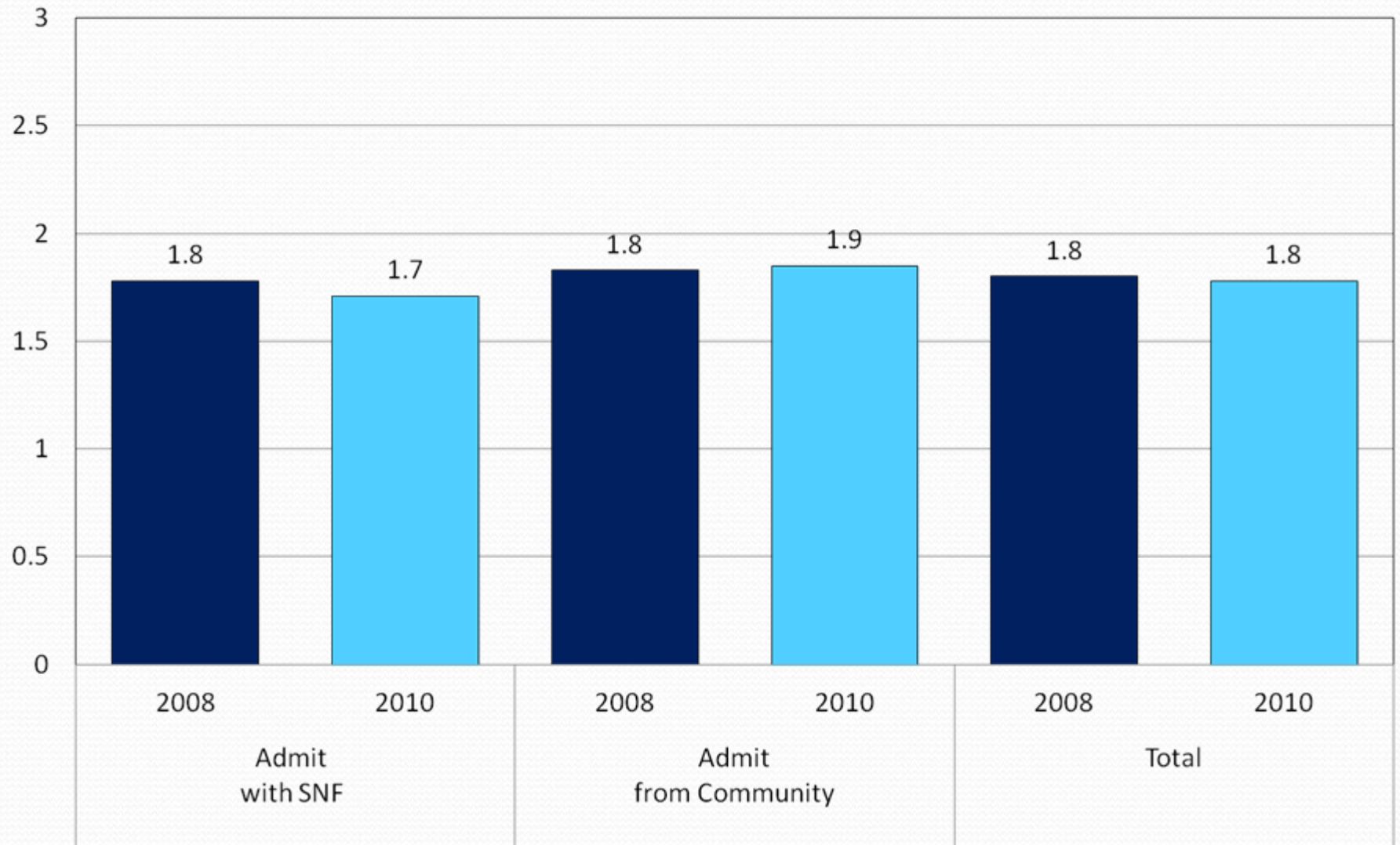


**Figure 2.12: Summary: Change (2008 to 2010) in ADLs by New Admission Cohorts**



**Source: MDS Admission Assessment, 2008 & 2010**

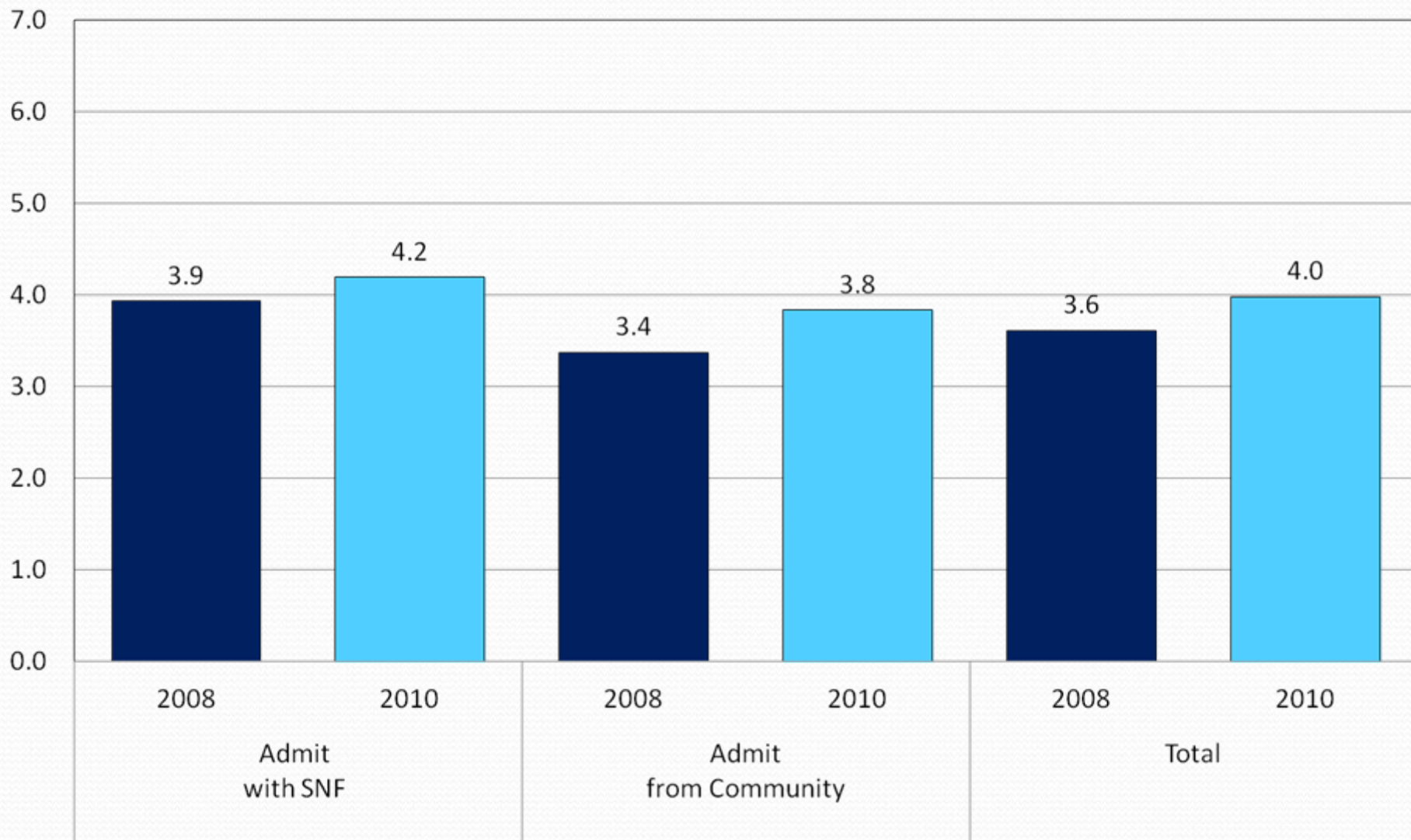
Figure 2.13 Cognitive Performance Scale (0 to 6)\* by New Admission Cohorts



Source: MDS Admission Assessment, 2008 & 2010

\* Higher score indicates greater cognitive impairment.

**Figure 2.14: Average Number (0 to 7) ADLs Needing Extensive/Total Assistance in Past 7 Days by New Admission Cohorts)**



**Source: MDS Admission Assessment, 2008 & 2010**



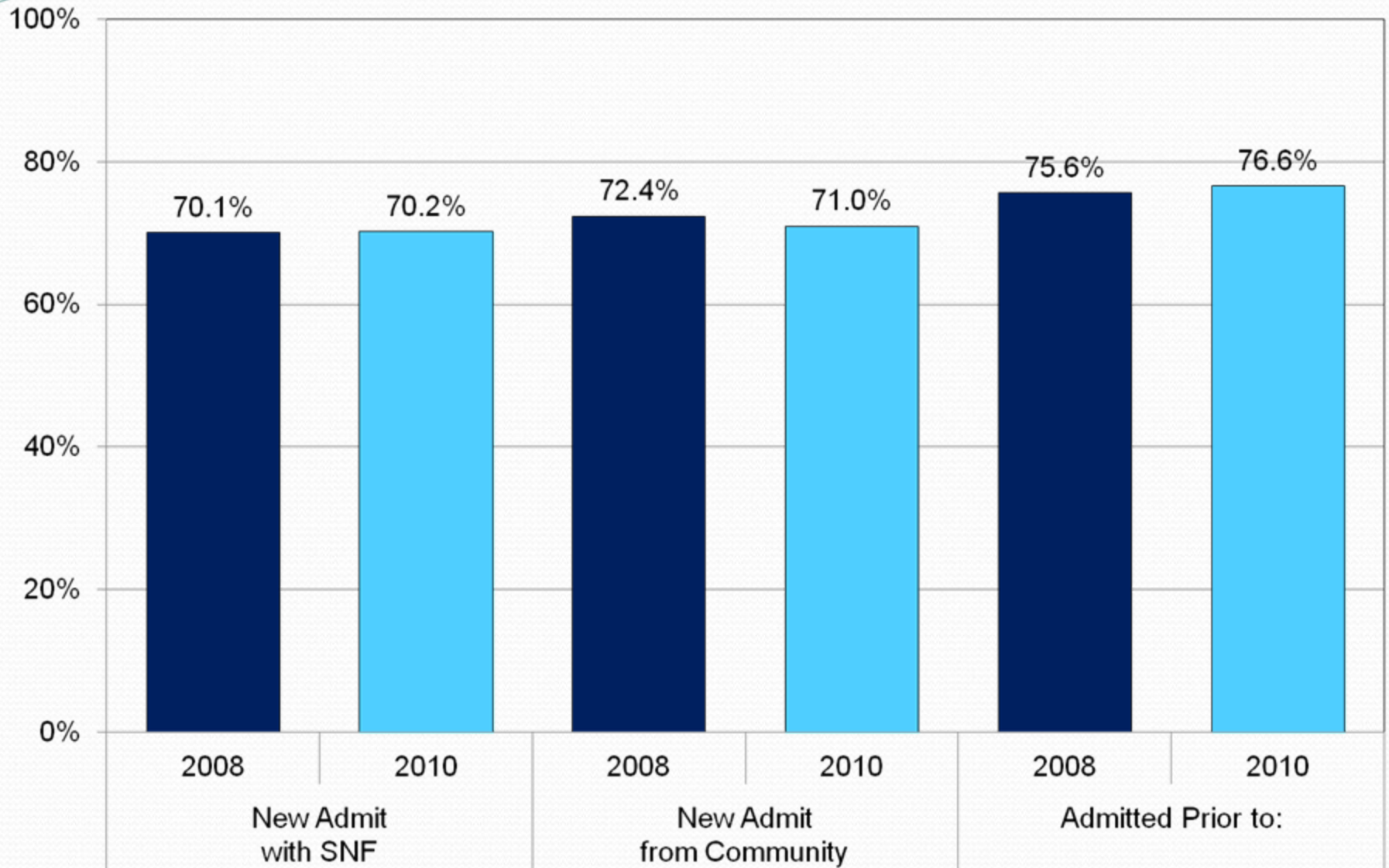
# **SECTION III**

**Change in Cognitive Status and Level of ADL  
Impairment**

**By 3 Long Stay (>90 days) Cohorts**

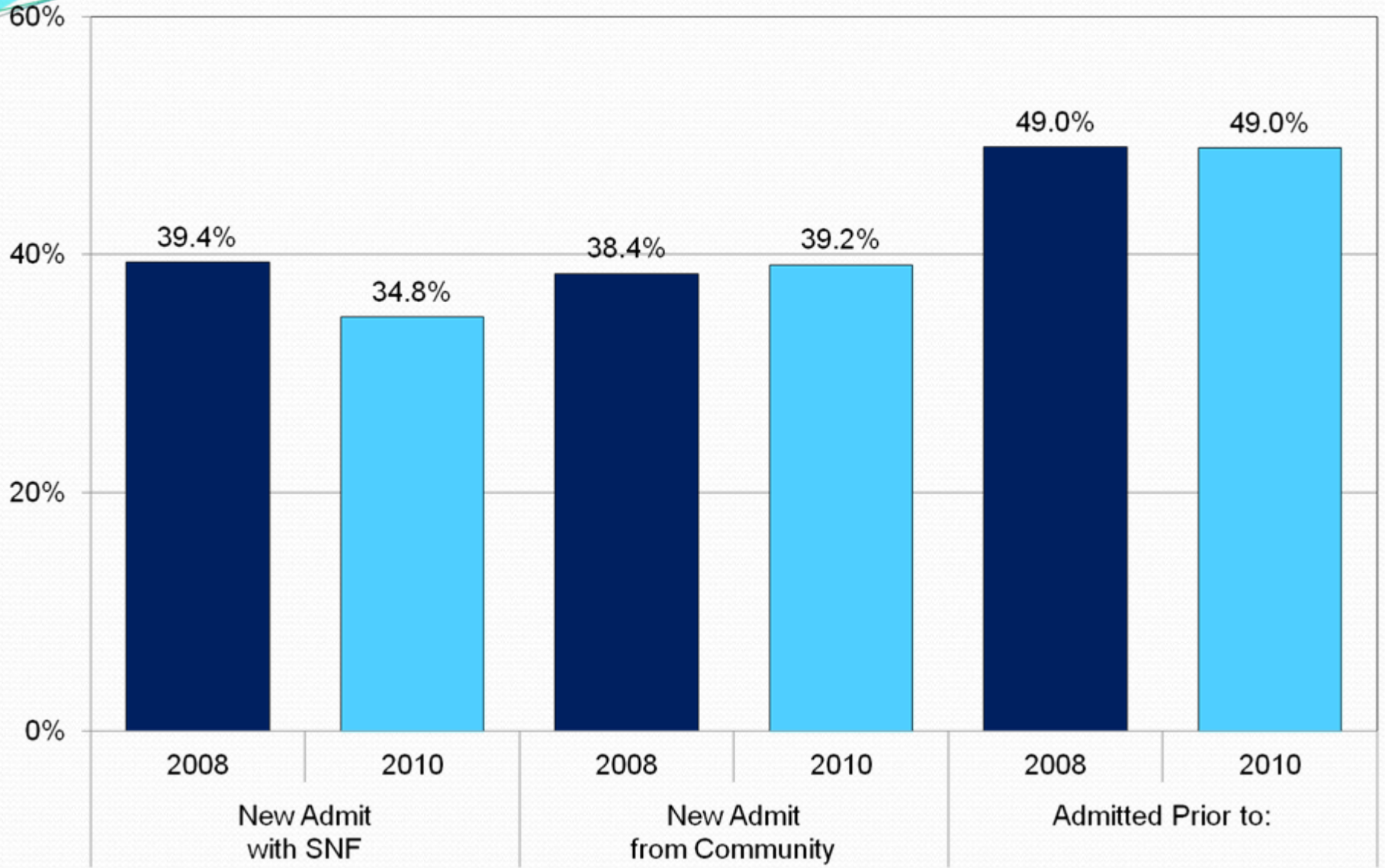
**2008 - 2010**

**Figure 3.1: Short-Term Memory Problem  
by Long Stay Cohorts**



**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

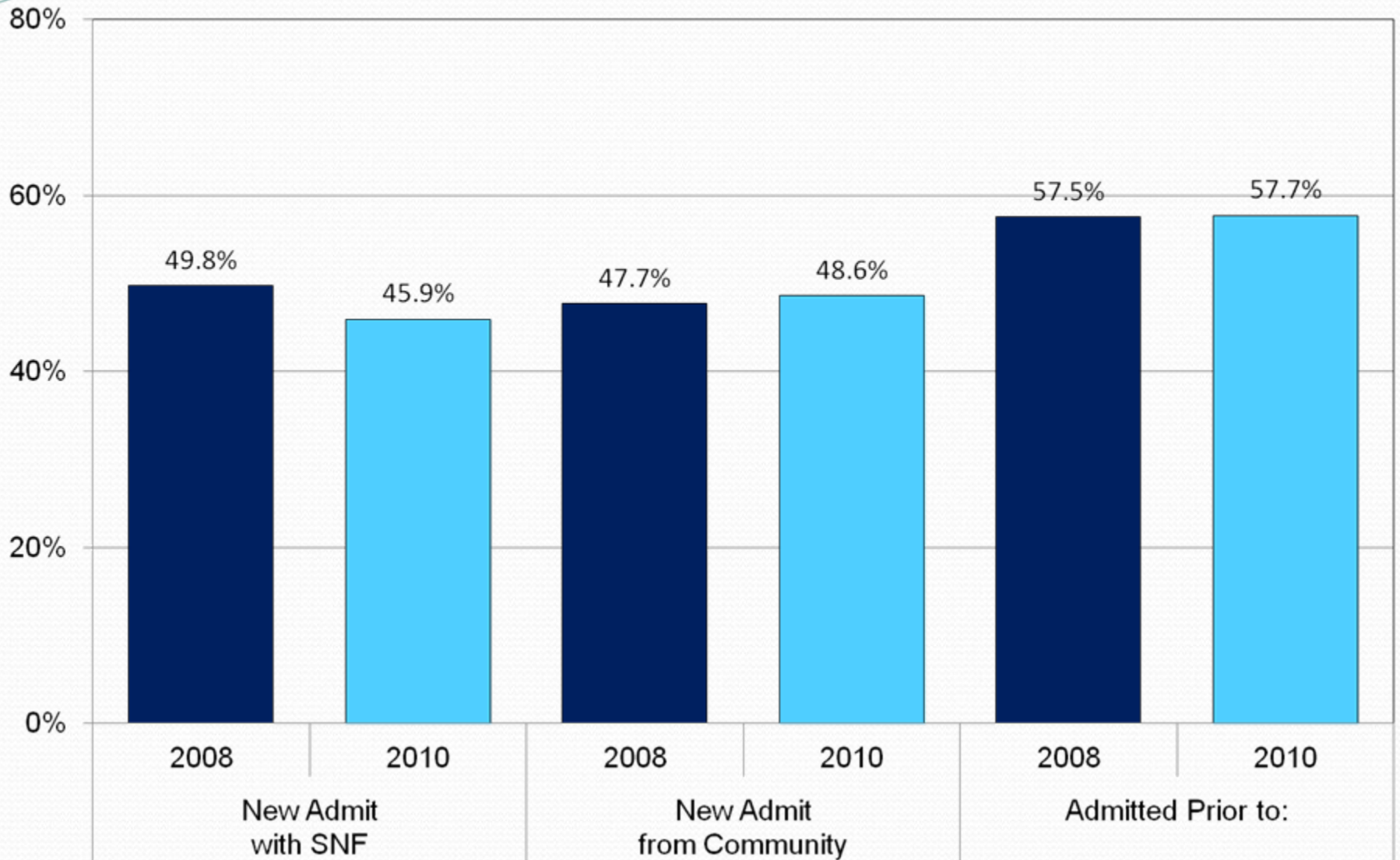
**Figure 3.2: Long-Term Memory Problem  
by Long Stay Cohorts**



Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010

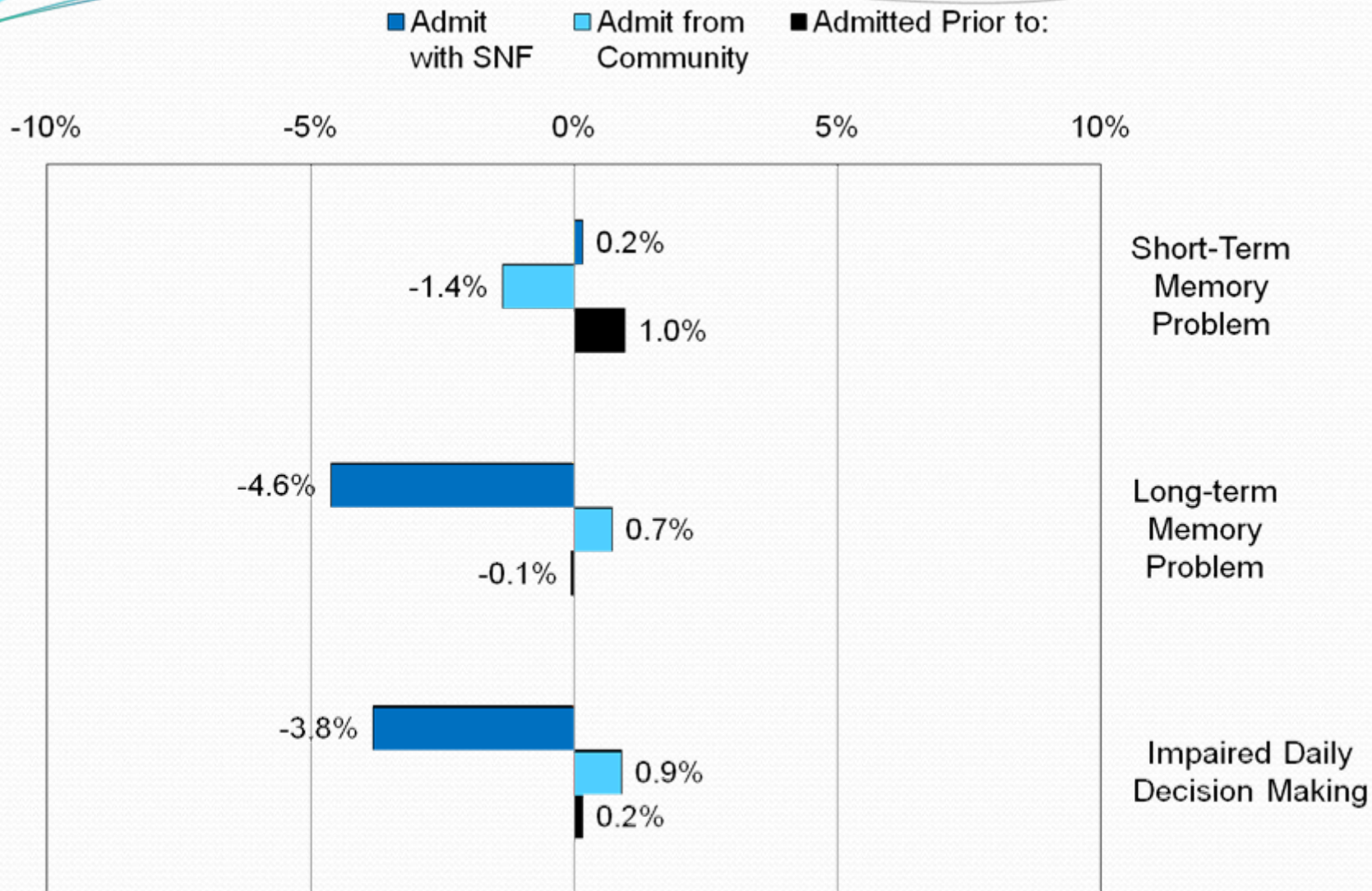


**Figure 3.3: Impaired Daily Decision Making by Long Stay Cohorts**



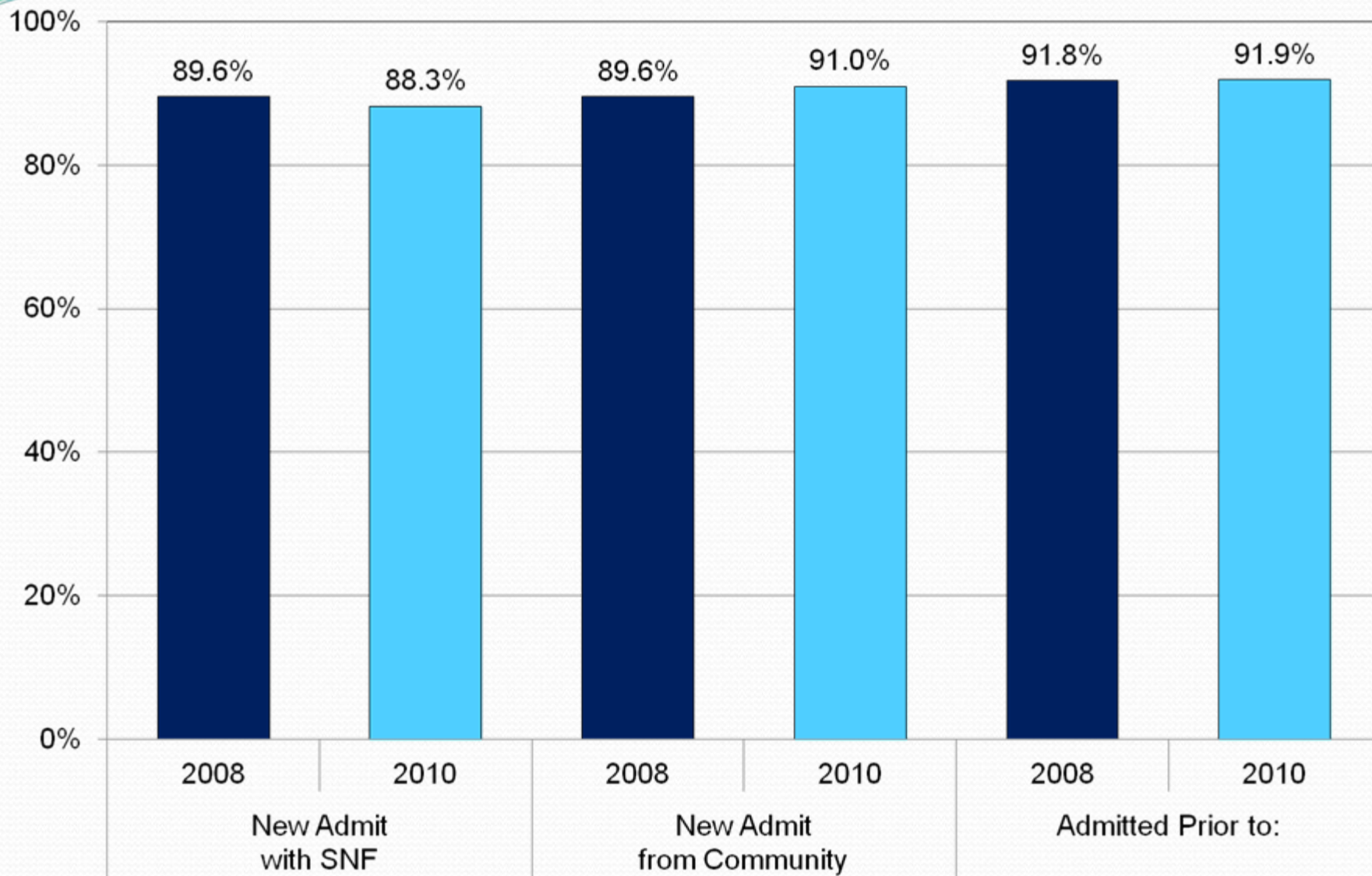
Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010

**Figure 3.4: Summary: Change (2008 to 2010) in Cognitive Measures by Long Stay Cohort**



Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010

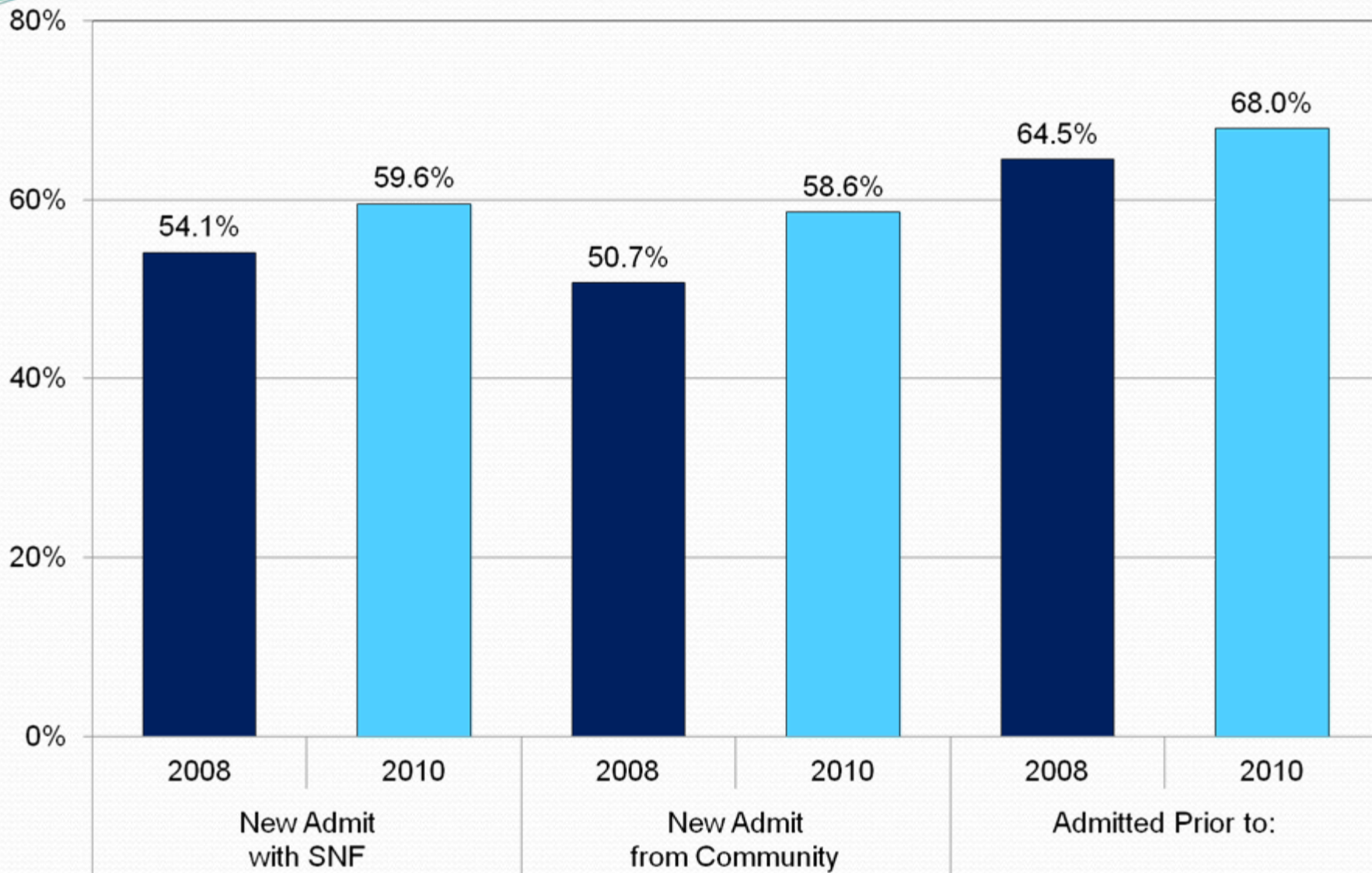
**Figure 3.5: Bathing-- Need Extensive/Total Assistance in Past 7 Days by Long Stay Cohorts**



**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

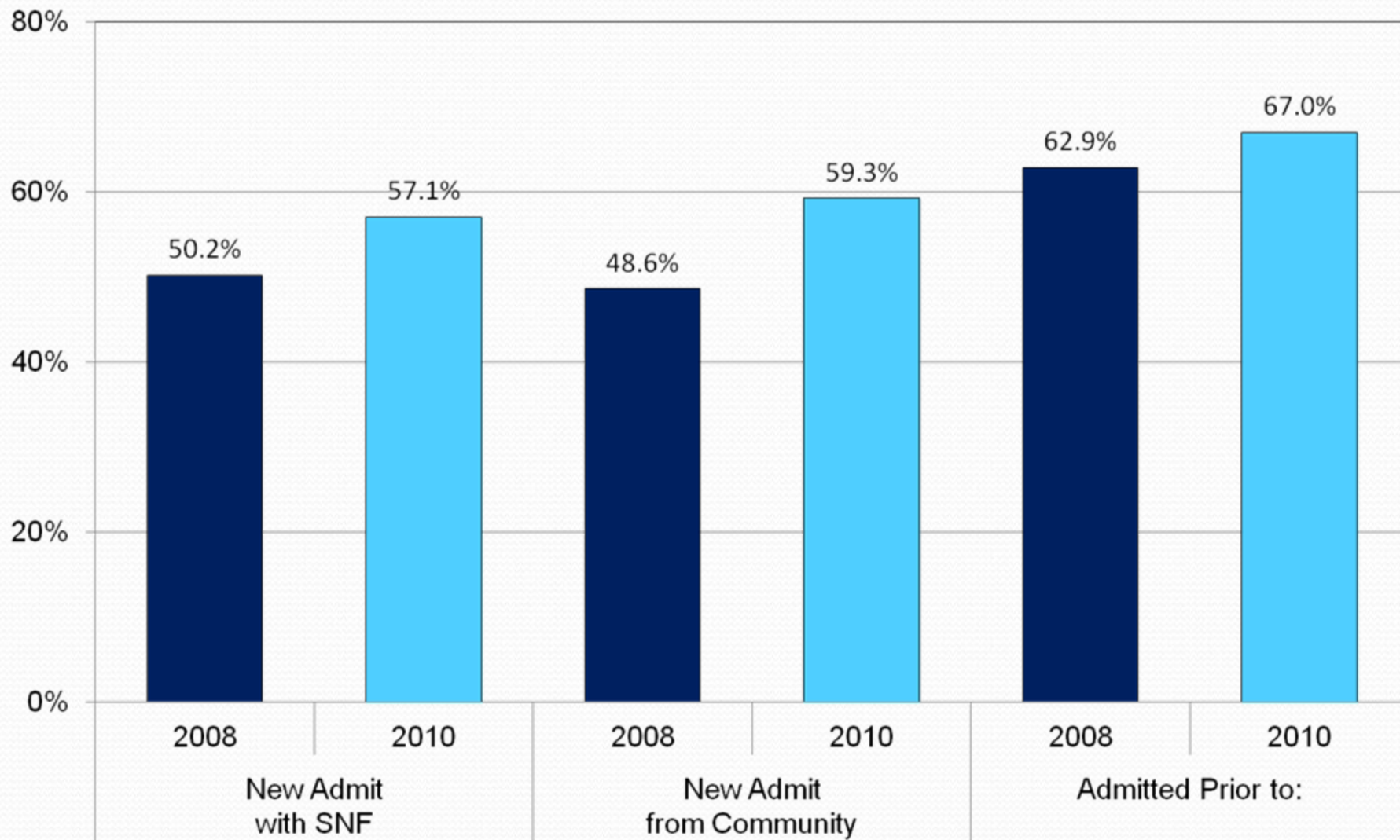


**Figure 3.6: Dressing-- Need Extensive/Total Assistance in Past 7 Days by Long Stay Cohorts**



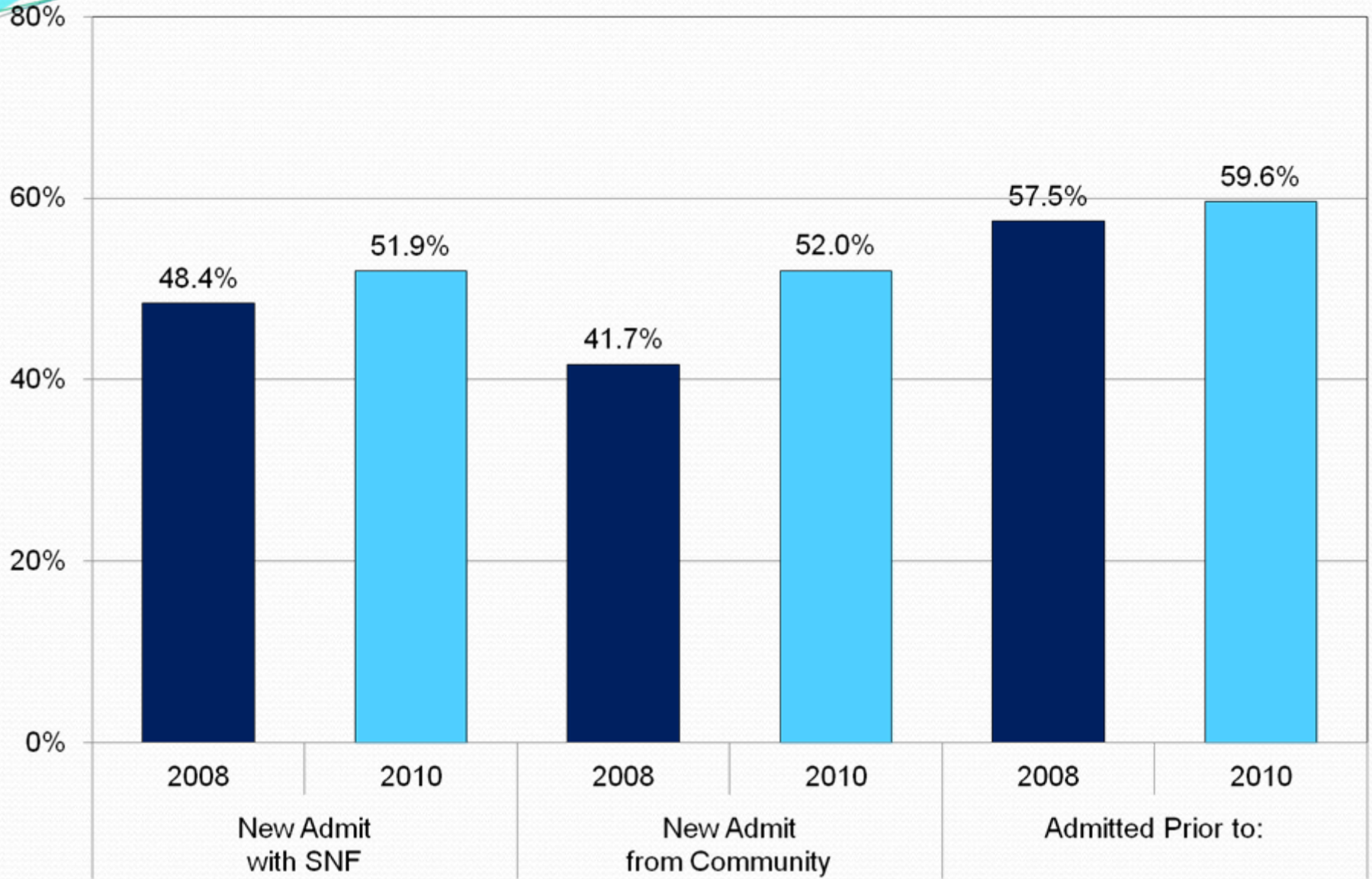
**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

**Figure 3.7: Personal Hygiene-- Need Extensive/Total Assistance in Past 7 Days by Long Stay Cohorts**



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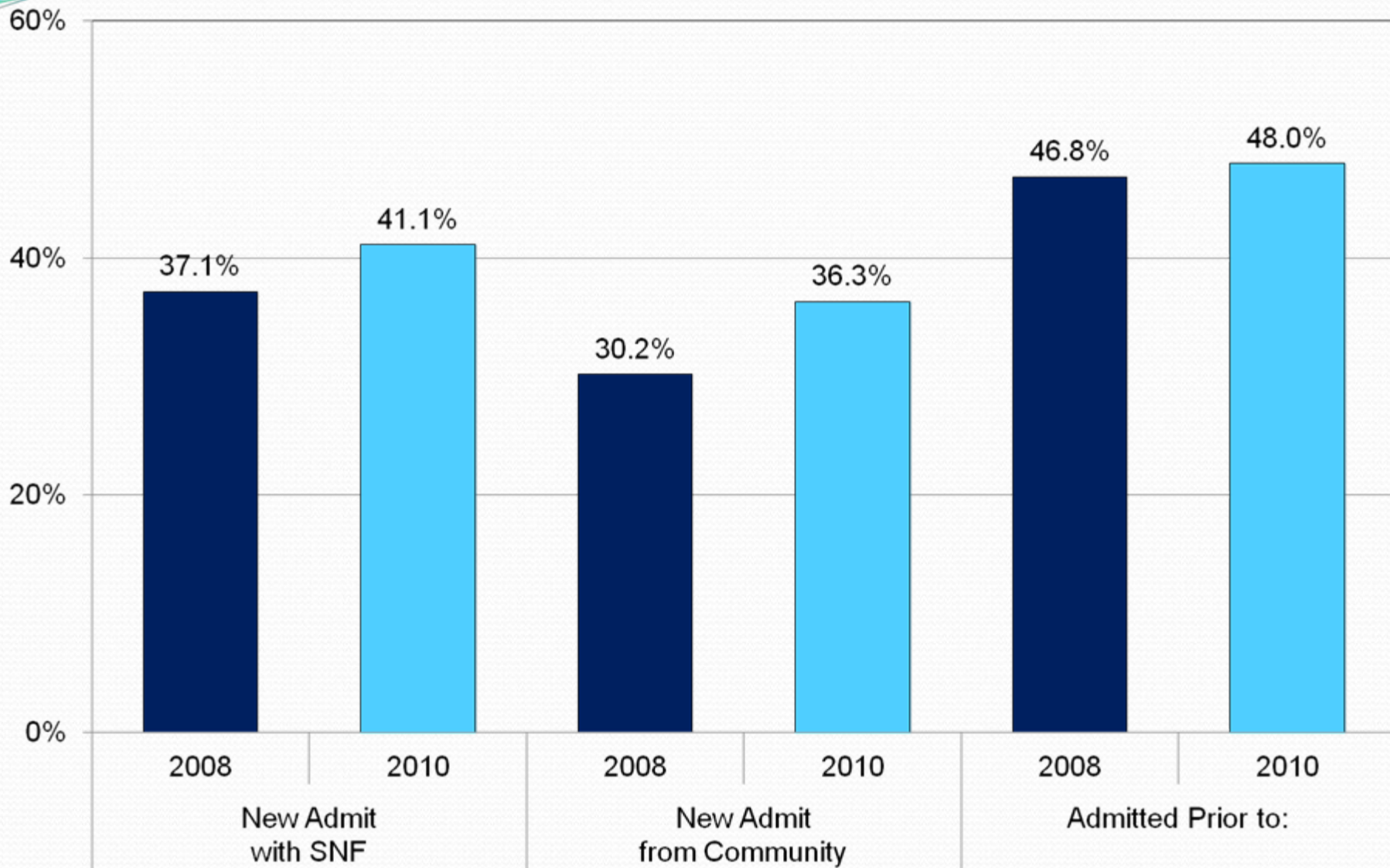
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**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

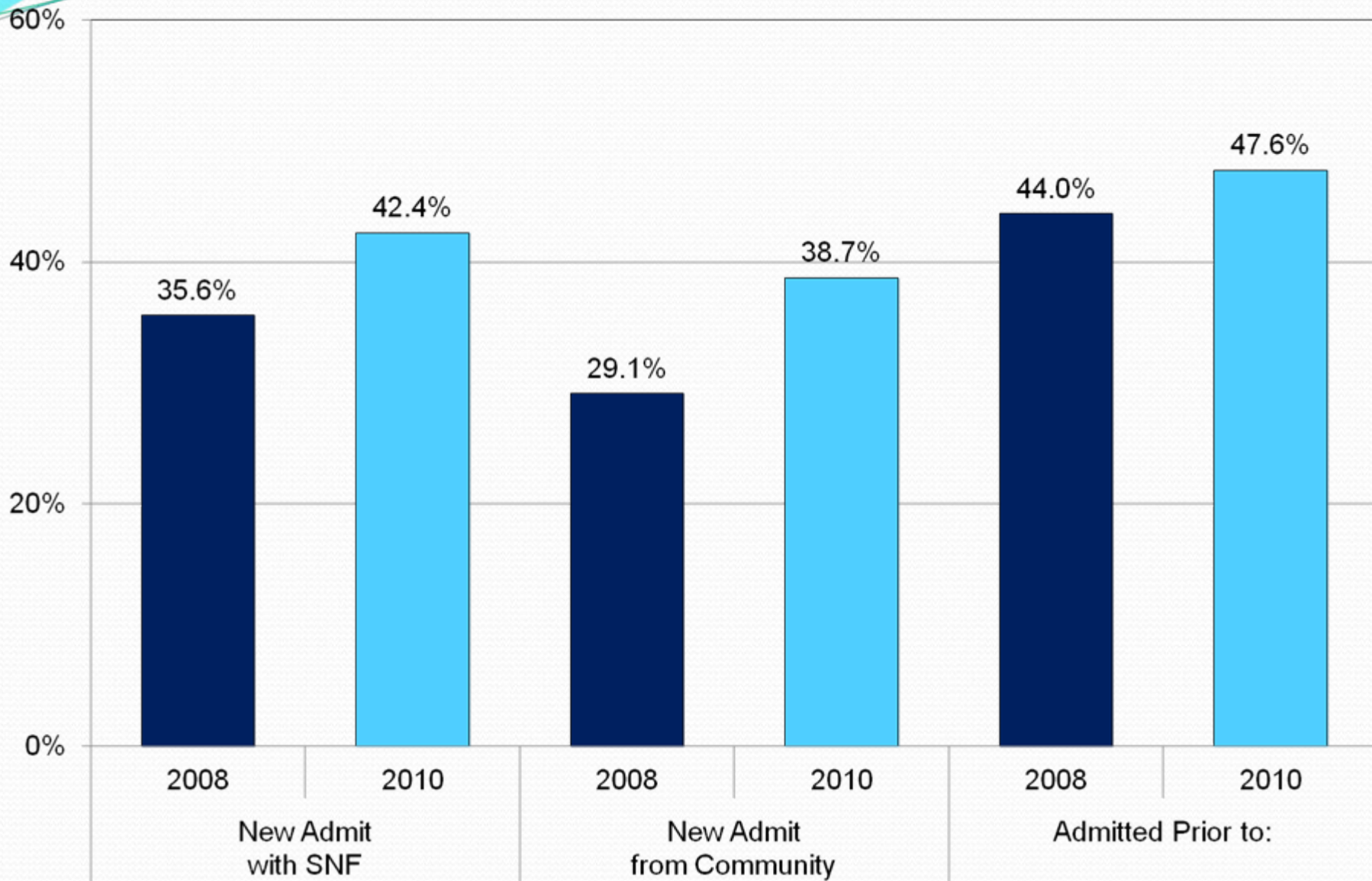


**Figure 3.9: Transfer-- Need Extensive/Total Assistance in Past 7 Days by Long Stay Cohorts**



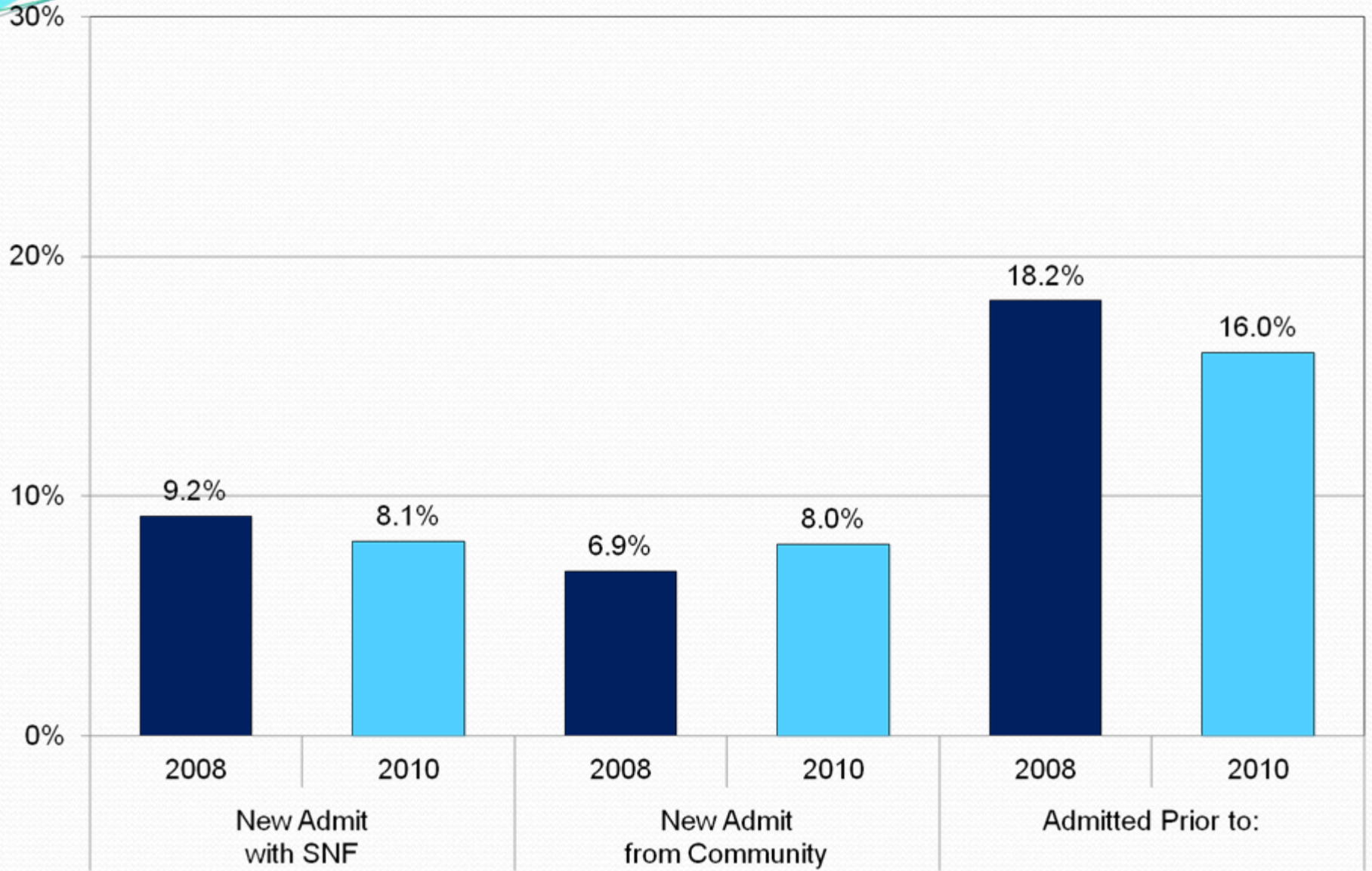
**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

**Figure 3.10: Bed Mobility--Need Extensive/Total Assistance in Past 7 Days by Long Stay Cohorts**



**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

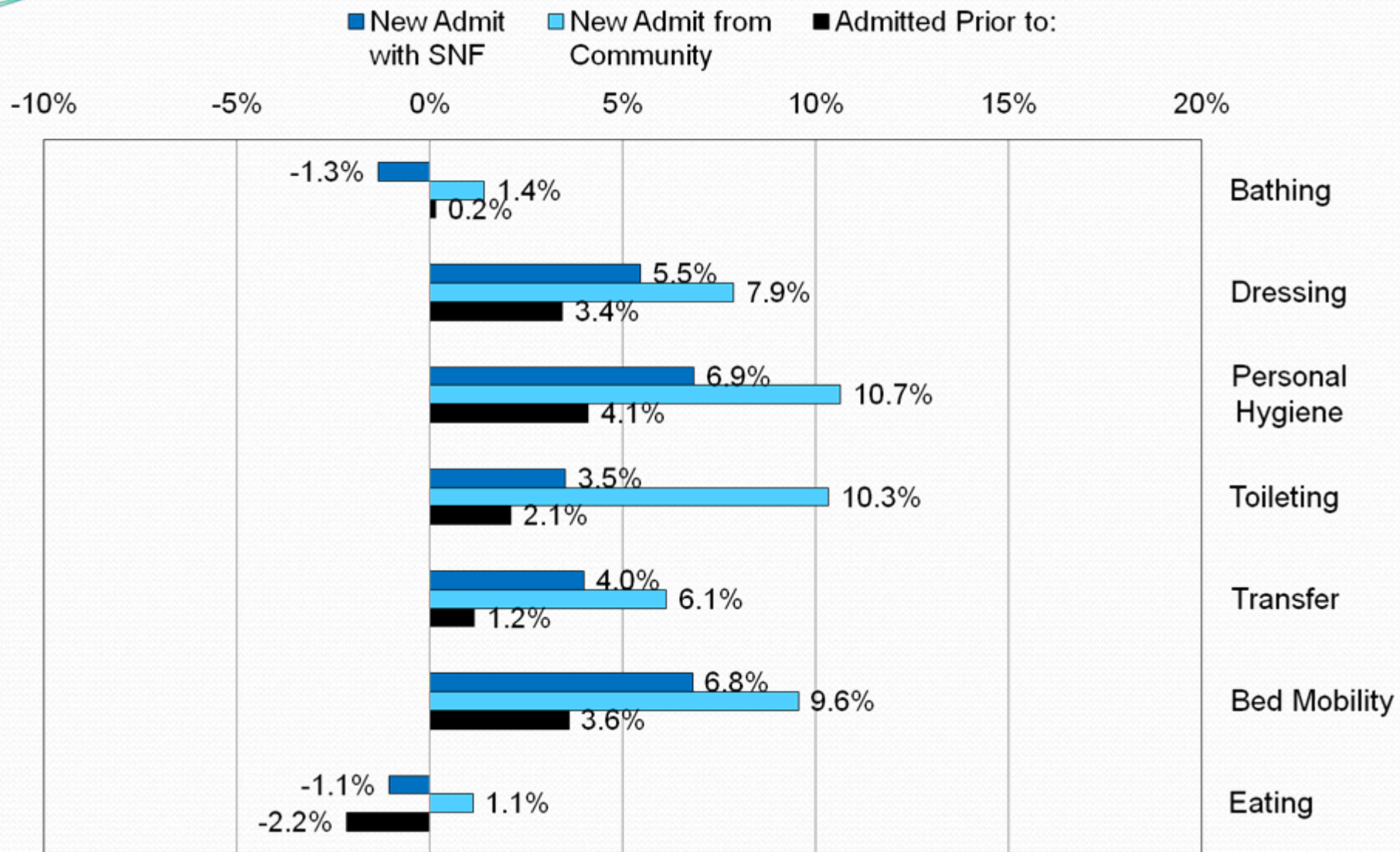
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**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

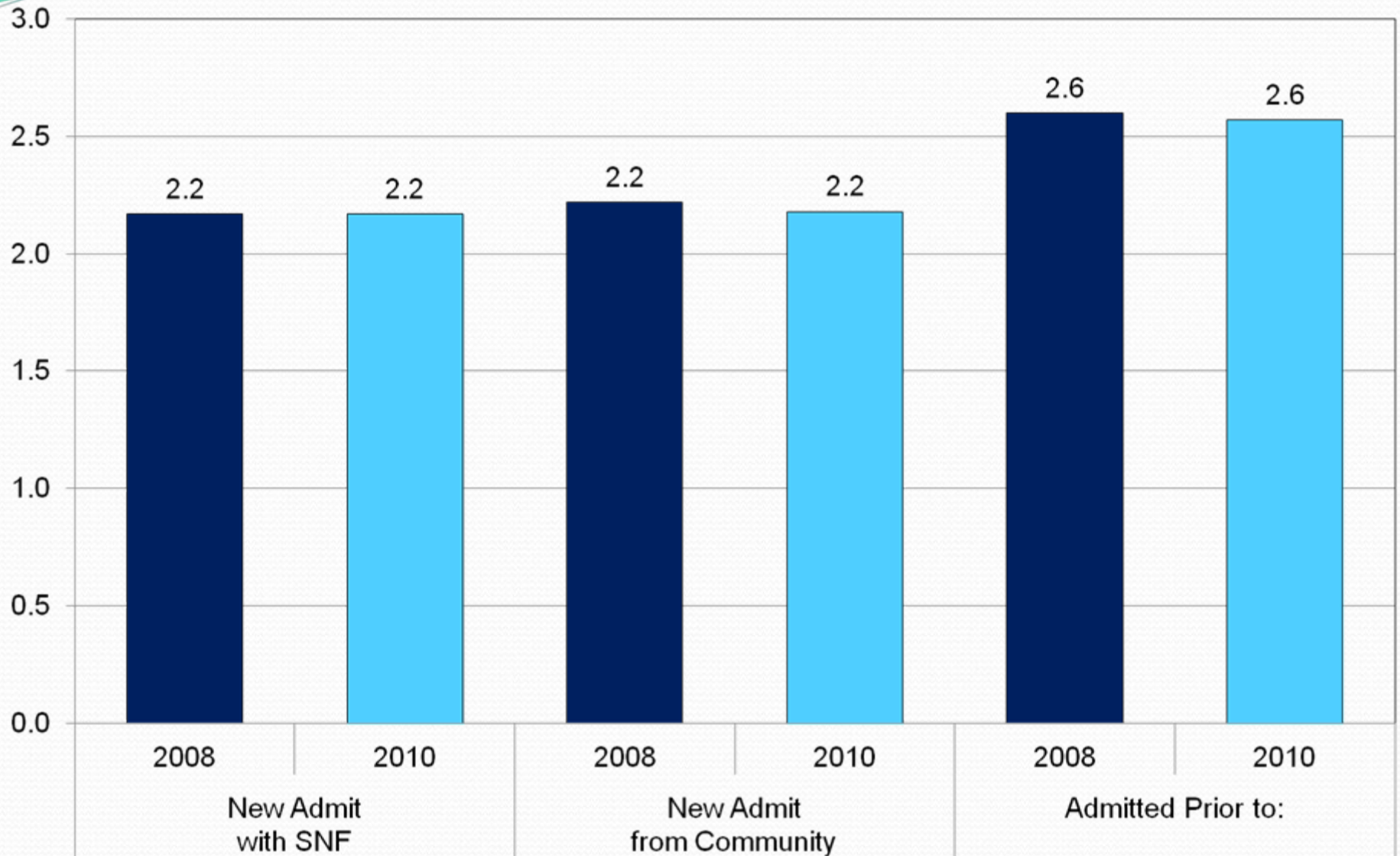


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Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010

**Figure 3.13: Cognitive Performance Scale (0 to 6)\* by Long Stay Cohorts**

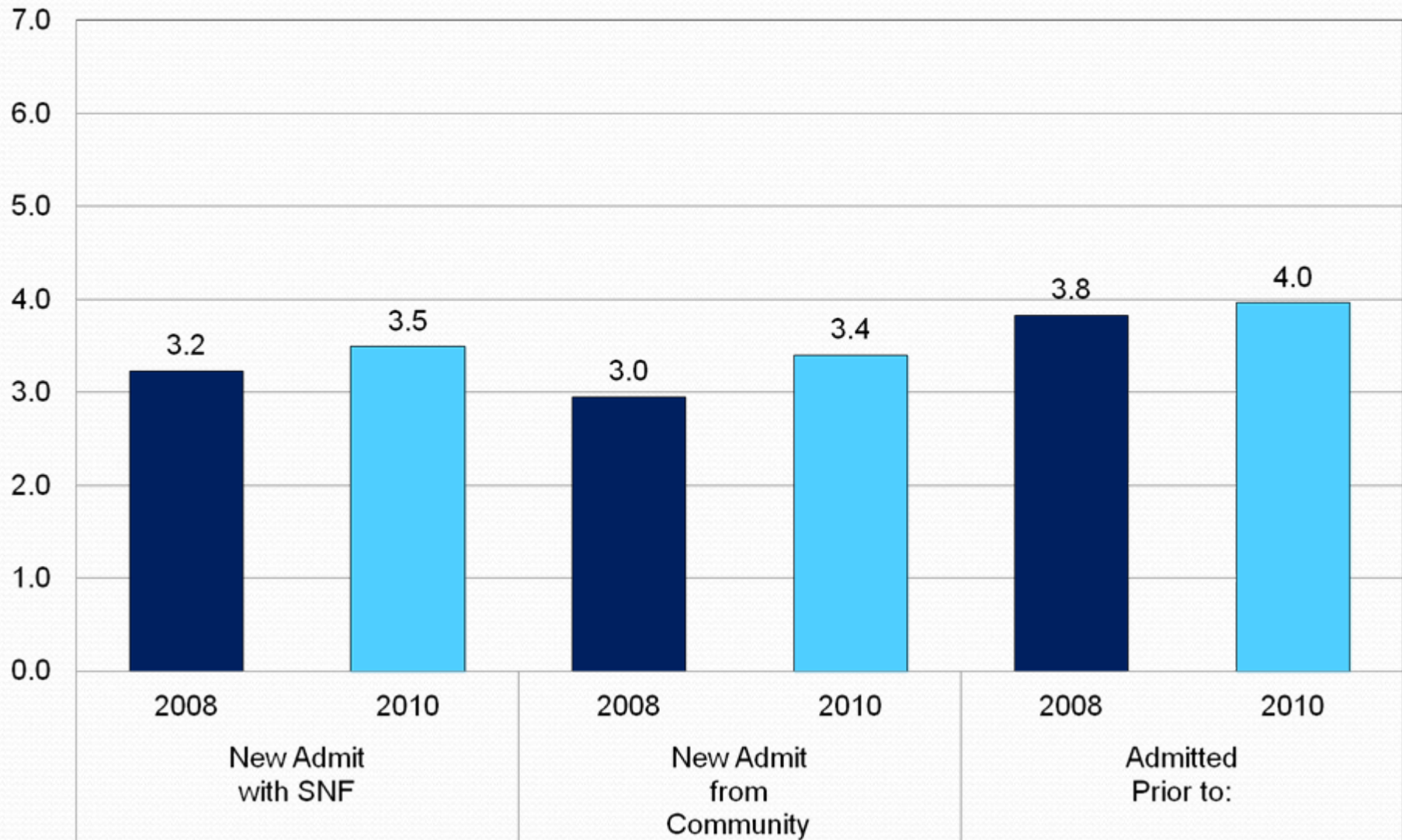


**Source: 1 Quarterly MDS Assessment, 2008 & 2010**

\* Higher score indicates greater cognitive impairment.



**Figure 3.14: Average Number (0 to 7) ADLs Needing Extensive/Total Assistance in Past 7 Days by Long Stay Cohorts**



**Source: 1<sup>st</sup> Quarterly MDS Assessment, 2008 & 2010**

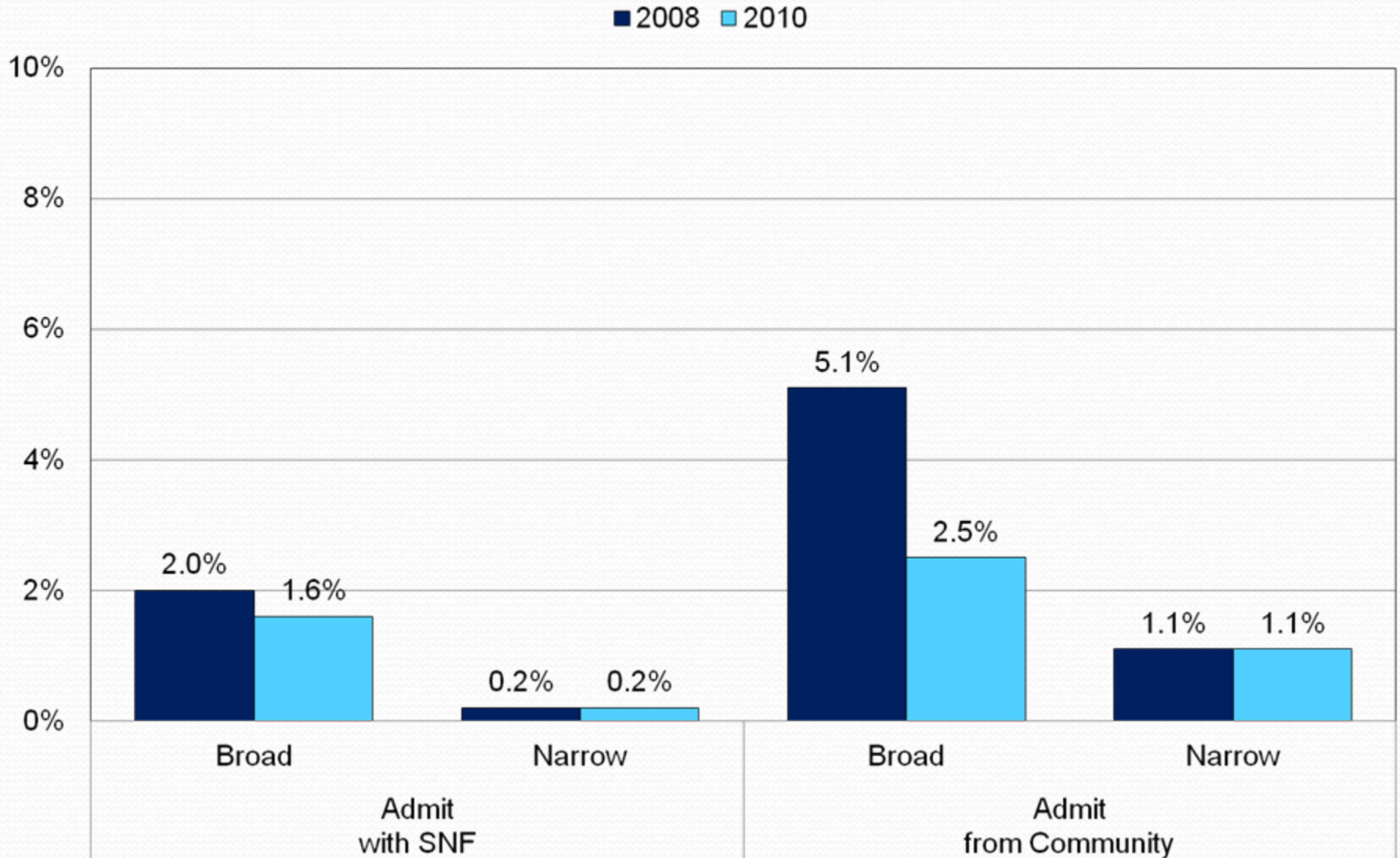




# **SECTION IV**

**Percent of Nursing Home Residents Who Meet  
Broad and Narrow Definitions of “Low Care”  
2008 & 2010**

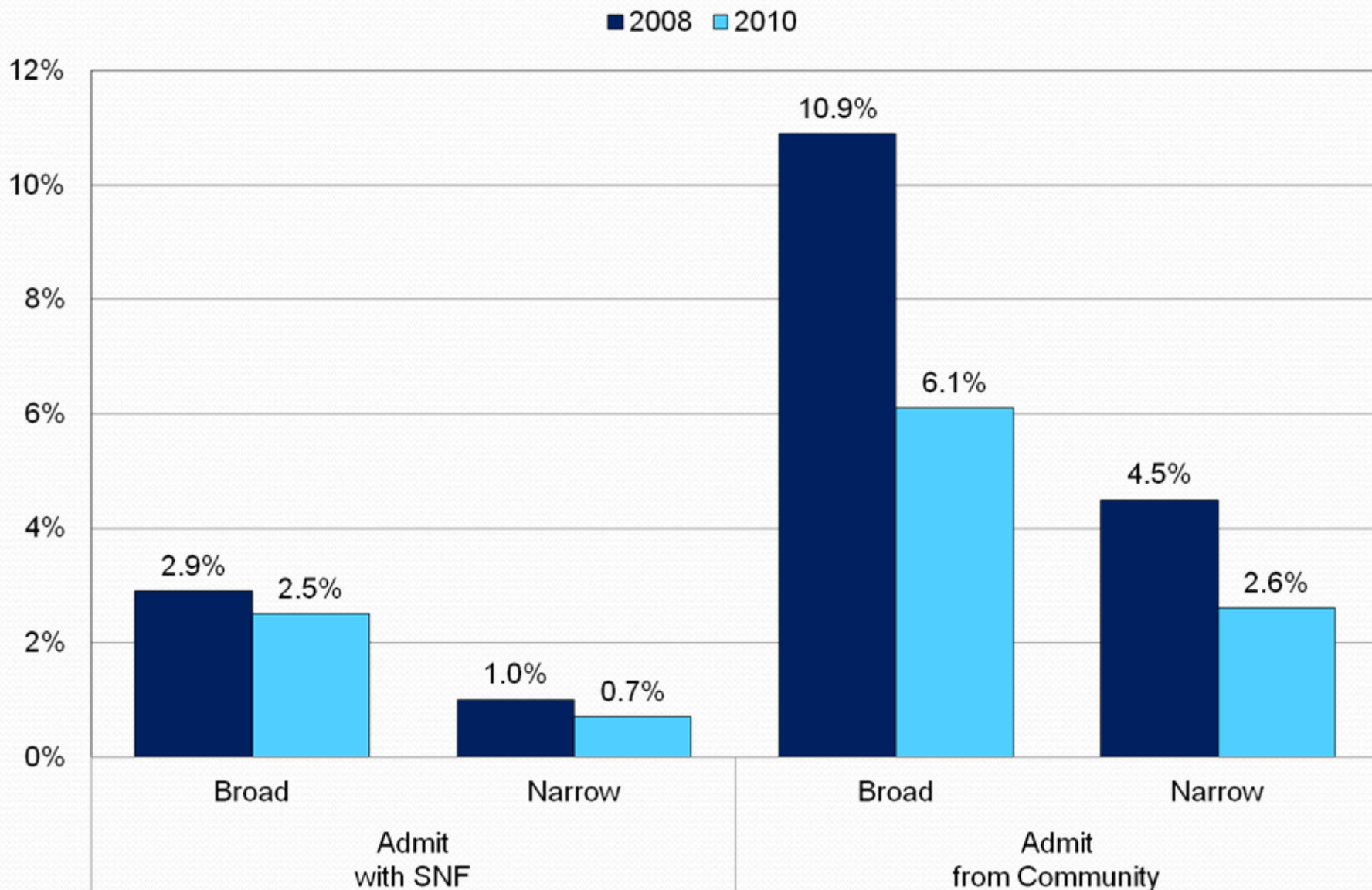
**Figure 4.1: Percent Short Stay New Admits Meeting Broad and Narrow Definitions of "Low Care" in 2008 and 2010 at Admission**



**Source: MDS Admission Assessment, 2008 & 2010**



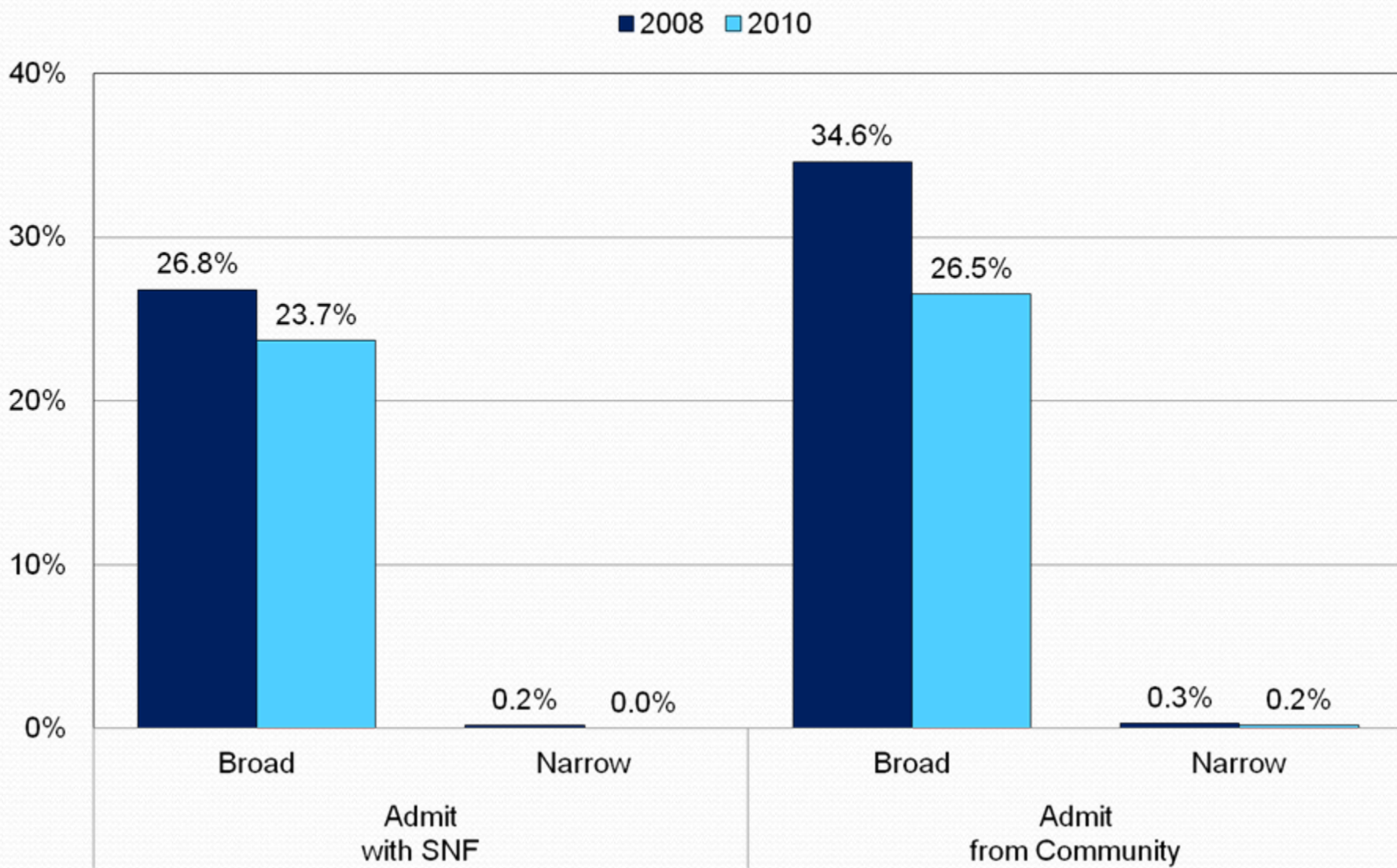
**Figure 4.2: Long Stay New Admits Meeting Broad and Narrow Definitions of "Low Care" in 2008 and 2010 at Admission**



**Source: MDS Admission Assessment, 2008 & 2010**

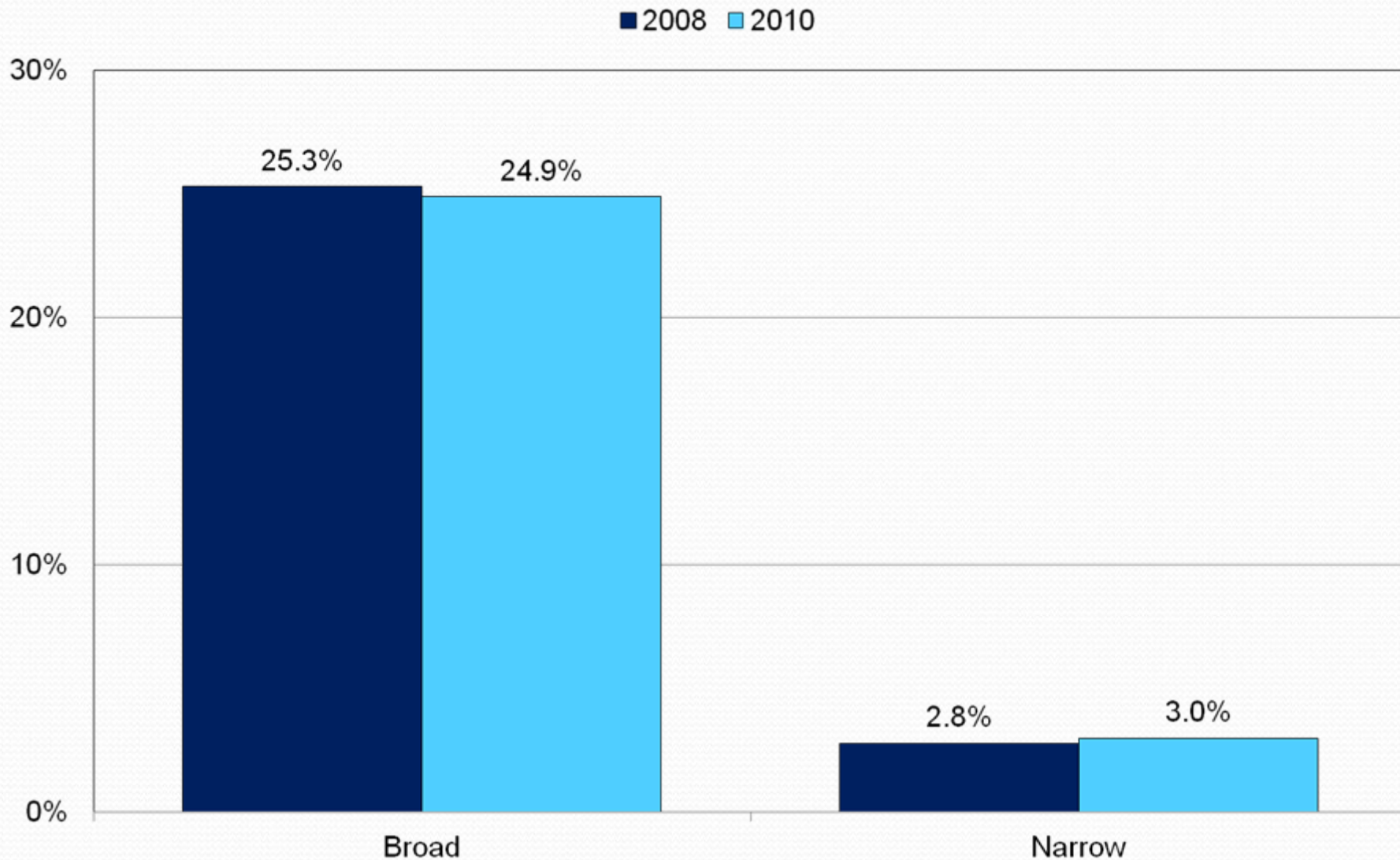


**Figure 4.3: Long Stay New Admissions Meeting Broad and Narrow Definitions of "Low Care" in 2008 and 2010 at 1<sup>st</sup> Quarterly MDS**



Source: MDS Quarterly Assessment, 2008 & 2010

**Figure 4.4: Admitted Prior to Study Period, Meeting Broad and Narrow Definitions of "Low Care" in 2008 and 2010  
At 1<sup>st</sup> Quarterly MDS**



**Source: MDS Quarterly Assessment, 2008 & 2010**



# Section V

Discharges to the Community  
2008-2010



Table 5.1: New Admits: Discharged to the Community Jan-June and Readmitted by Oct 1

	2008		2010	
	# Discharged	N (%) Readmitted	# Discharged	N (%) Readmitted
January	34	23 (67.7%)	33	15 (45.5%)
February	65	37 (56.9%)	79	35 (44.3%)
March	71	35 (49.3%)	76	40 (52.6%)
April	83	36 (43.4%)	80	35 (43.7%)
May	65	28 (43.1%)	62	29 (46.7%)
June	60	25 (41.7%)	83	27 (32.5%)
Total	378	184 (48.7%)	413	181 (43.8%)

Table 5.2: Admitted Prior to Study Period: Discharged to the Community Jan-June and Readmitted by October 1

	2008		2010	
	# Discharged	N(%) Readmitted	# Discharged	N (%) Readmitted
January	71	39 (54.9%)	85	44 (51.8%)
February	43	21 (48.8%)	39	17 (43.6%)
March	27	8 (29.6%)	39	18 (46.2%)
April	36	13 (36.1%)	37	11 (29.7%)
May	23	8 (34.8%)	22	4 (18.2%)
June	17	6 (35.3%)	19	6 (31.6%)
Total	217	95 (43.8%)	241	100 (41.5%)

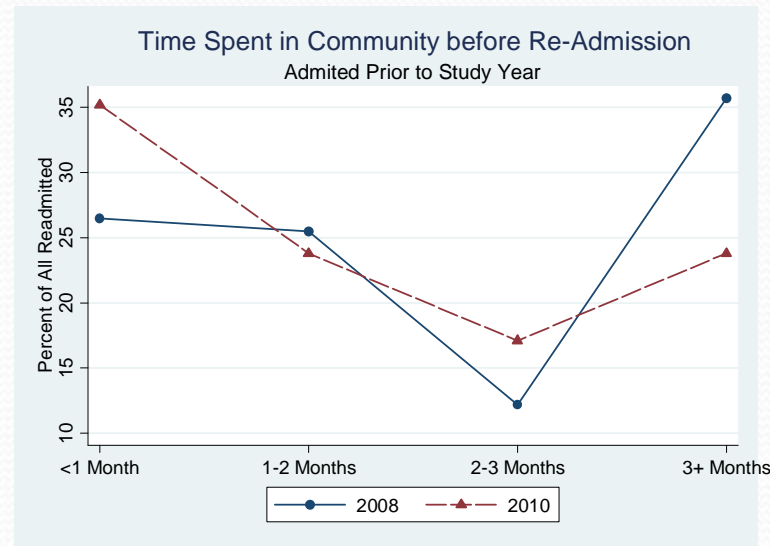
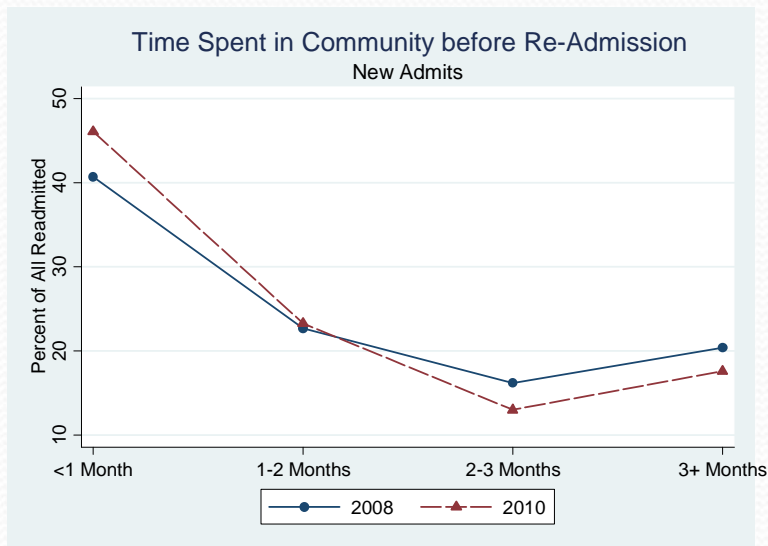


**Table 5.3: Time in the Community for New Admits Discharged and Readmitted**

	By 10/01/08 (n = 216)	By 10/1/2010 (n = 193)
< 1 mo.	40.7%	46.1%
1-2 mo.	22.7%	23.3%
2-3 mo.	16.2%	13.0%
3+ mo.	20.4%	17.6%

**Table 5.4: Time in the Community for Residents Admitted Prior to Study Year Who were Discharged and Readmitted**

	By 10/01/08 (n = 98)	By 10/1/2010 (n = 105)
< 1 mo.	26.5%	35.2%
1-2 mo.	25.5%	23.8%
2-3 mo.	12.2%	17.1%
3+ mo.	35.7%	23.8%





# Summary of Findings

- **The results of our analyses to determine change in the Medicaid population in nursing homes attributable to rebalancing efforts are encouraging: we observed a decrease of 8% between 2008 and 2010 in the proportion of new admissions who remain in the nursing home longer than 90 days (long stay).**
- **This decrease in “conversion” to long stay status is more pronounced in persons who enter the nursing home for post-acute care (9% decrease) than among persons who entered from the community (7% decrease).**
- **There is very little change in the cognitive status of people who entered the nursing home in 2008 and 2010.**
- **In contrast, there is an increase in the percentage of persons entering the nursing home who require extensive help with ADLs in 2010, and this increase is observed for all ADLs except bathing.**
- **Additionally, the increase in ADL impairment severity is more pronounced for persons admitted from the community than for persons who entered the nursing home for post acute care.**

# Summary of Findings cont'd

- **Nursing home residents who remained in the nursing home longer than 90 days (long stay residents) were also more ADL impaired in 2010 than in 2008, and this increase in severity is greatest for residents admitted from the community. The least amount of change was among residents who were admitted prior to the year of interest (i.e., prior to 2008 and 2010).**
- **The proportion of persons admitted from the community who meet the broad criteria for “Low Care” (i.e., no late loss ADLs) was halved between 2008 and 2010, from 5.1 % in 2008 to 2.5% in 2010 for persons who stayed < 90 days (short stay) and from 10.9% to 6.1% for persons who stayed > 90 days (long stay).**
- **The proportion of persons who meet the broad criteria for “Low Care” was considerably higher three months following admissions than at admission for persons admitted from home in both years, but it was lower in 2010 (26.5%) than in 2008 (34.6%).**



# Summary of Findings cont'd

- **There is a modest decrease (5%) in the proportion of new admits discharged to home who were readmitted to the nursing home from 2008 to 2010.**
- **However, persons readmitted in 2010 spent less time in the community prior to readmission than in 2008.**



# Implications for the Medicaid Program

- **These results suggest a clear and consistent impact of activities associated with efforts to rebalance long term care in Rhode Island on the acuity level of the Medicaid nursing home population.**
- **Use of the universal screening tool, NH diversion programs and discharge planner training are likely responsible for the increase in ADL impairment and decrease in the % of persons who enter the nursing home with low care needs.**
- **Efforts to triage persons who enter the nursing home back to the community with services or to less restrictive settings are likely to be responsible for the decrease in the % of persons who remain in the nursing home longer than 90 days.**
- **The increase in the % of residents discharged to the community under a more aggressive discharge initiative is countered by a decrease in the length of time in the community for those who are readmitted, suggesting that community supports may not have been adequate for the sicker, more impaired discharged residents.**

# Implications for the Medicaid Program Cont'd

- **Further, data from the first quarterly assessments, conducted approximately 90 days following nursing home admission, suggest that nearly one quarter of long stay new admissions recover sufficiently to fall into the broad “low care” classification. More monitoring is required to successfully triage these residents to a less restrictive setting.**
- **Access to assisted living has improved, and the new Shared Care option holds promise for persons who may not require substantial ADL assistance but who may require around the clock supervision due to cognitive impairment. However, continued expansion of these and other community based options may be difficult to come by in the current economic environment.**



## Implications for the Medicaid Program Cont'd

- **All in all, the Medicaid program has been successful in its initial efforts to change the landscape of long term care in Rhode Island. With further development of community-based LTC options, the progress documented in this report is likely to continue toward Medicaid's goal of delivering the right services to the right people at the right time.**