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The Nursing Facility and Waiver Functional Assessment Study

Executive Summary

Background

In January 2007, Ohio was one of 31 states and the fourth-largest grantee of the Money Follows the Person Demonstration enacted by Congress as part of the Federal Deficit Reduction Act of 2005. The Office of Ohio Health Plans (OHP) in conjunction with the “Front Door Stakeholder Group” is working towards a system of long-term care that maximizes choice and promotes community integration. The objective is to expand Ohio’s capacity to serve Medicaid consumers with long-term service and support needs in the community.

Ohio Medicaid’s current long-term care system is progressing toward greater flexibility in choosing long-term care options. Identification of long-term care needs and the preferences of consumers and family members for non-institutional care could provide important information to help prevent or delay nursing facility placement.

The Nursing Facility and Waiver Functional Assessment study provides information on profiles of levels of care criteria and long-term care placement in nursing facilities, PASSPORT, and Ohio Home Care Waivers. The study describes how characteristics of placement vary among consumers in each of the three programs.

Methods

The study population included Ohio Medicaid consumers enrolled in the PASSPORT or Ohio Home Care waiver programs, or newly admitted to a nursing facility for at least two months from October, 2006 through September, 2007. The eligible consumers were placed into one of three comparisons groups based on their most recent waiver enrollment or nursing facility admission during the study period.

A retrospective review of available administrative data and medical record documentation was conducted. Logistic regression analysis was used to identify consumer characteristics significantly related to the enrolling in a waiver program as opposed to being admitted to a nursing facility. Separate models were constructed for consumers, age 40 through 59 years and age 60 and over, corresponding to the eligible age ranges of the Ohio Home Care and PASSPORT waiver programs, respectively.

Quality Indicators

Thirty-one quality indicators provided the focus of the study:

Program consumers by age
Program consumers by gender

Program consumers by race
Program consumers by marital status
Program consumers by county type
Program consumers by county location
Program consumers by primary diagnosis
Percent of consumers with diagnoses of Behavioral Health Conditions
Percent of consumers with diagnoses of traumatic brain syndrome
Frequency of preceding waiver program enrollment
Levels of care
Levels of ADL assistance needs
Frequency of ADL impairments
Levels of IADL assistance needs
Frequency of IADL impairments
Levels of medication administration assistance needs
Frequency and levels of incontinence
Proportion of consumers with chronic disabilities
Proportion of consumers with chronic disability that manifested before age 22
Proportion of consumers with chronic disability with substantial functional limitations in major life
Proportion of consumers with behavioral characteristics
Level of supervision needs
Proportion of consumers who required skilled services
Levels of rehabilitation potential
Proportion of consumers who received psychotropic medications
Frequency of consumers' living arrangements prior to current program placements
Proportion and type of family/support composition
Frequency of acute hospital admissions for consumers within 1 year of current program placements
Frequency of home care nursing and/or personal care units for consumers within 1 year of current program placements
Frequency of the number of months of waiver enrollment within 1 year of current program placements
Proportion of factors precipitating the current program placements

Results

Sample Disposition | A stratified random sample of 1,374 eligible consumers was selected, with 458 sampled consumers coming from each of the three comparison groups. The requested number of charts included a 20% inflation factor to allow for unavailable and excluded records. The record response rate for this study was 84% of requested records, which resulted in a larger than required sample.

Patient Profiles | The Home Care Service program for 40-59 years olds and PASSPORT waiver program for 60 year olds and over, do not overlap in age. The majority of the Home Care enrollees were between 50-59 years of age. The majority of the PASSPORT enrollees were between 60 and 79, and the ages of the Nursing Facility residents were between 50 and 89 years old. The gender and race distribution generally reflected the Ohio Medicaid population. The most common marital status in the Home Care group was *divorced* and the most common in the PASSPORT and Nursing Facility groups was *widowed*. Previous waiver placement during the month preceding admission revealed that none of the Home Care and PASSPORT consumers had any previous enrollment into waiver program. Only 17% of the PASSPORT group and 1% of the Home Care group had been in a nursing facility.

There were significant differences in the level of care between the Nursing Facility group and the waiver program. The majority of consumers in the waiver programs had an intermediate level of care. Most of the Nursing Facility consumers required a skilled level of care.

Diagnoses | Diabetes Type 2 was the most commonly coded primary diagnosis in the Home Care and Nursing Facility groups and the second most common in the PASSPORT group. Diagnoses of Behavioral Health Conditions appeared in at least half of the consumers of each of the three groups. Traumatic Brain Syndrome was not common in any of the three groups.

ADLs and IADLs | Over 55% of all three groups needed *hands on* assistance with mobility, bathing and dressing. Toileting showed the greatest variations among the groups. *No assistance* was needed by 62% of the Home Care group, 69% of the PASSPORT group and 11% of the Nursing Facility group. The number of ADL impairments per consumer averaged: 4 for the Home Care group, 3.5 for the PASSPORT group, and 5.4 for the Nursing Facility group. The overwhelming majority of all three groups needed *hands on* assistance for all the IADLs. The average number of IADL impairments averaged: 4.7 for the Home Care group, 4.8 for the PASSPORT group and 4.9 for the Nursing Facility group.

Chronic Disabilities | Nearly all of the Home Care group, and approximately one-fourth of the PASSPORT and Nursing Facility groups had severe, chronic disabilities that resulted in impairment of intellect or adaptive behavior. These were attributed to conditions other than mental illness.

Behavioral Characteristics | There were only some slight variations of the distribution of behavioral characteristics among the three groups. Most notable differences included the prevalence of difficulty sleeping and inability to make their own decisions.

Skilled Care | Skilled services were most prevalent in the Nursing Facility group. The most frequent skilled service was physical therapy rehabilitation at least one day per week. As expected consumers with assigned skilled levels of care were much more likely to received skilled services than those with assigned intermediate levels of care.

Supervision Needs | The majority of the Home Care and the PASSPORT groups needed 1–23 hours/day supervision. Well over half of the Nursing Facility group needed 24 hour supervision.

Medications and Administration | The prevalence of categories of psychotropic medication (anti-anxiety, antidepressants, and antipsychotics) at the time of admission revealed that overall, 72% of the Home Care group, 61% of the Nursing Facility group and 46% of the PASSPORT group were taking at least one of the three categories of medications. The consumer’s ability to administer his/her own medications was assessed. *Hands on* assistance was needed by 47% of the Home Care group, 40% of the PASSPORT group and 79% of the Nursing Facility group.

Living Arrangements/Family Support Composition | The majority of the waiver program group consumers lived in their own home or apartment prior to their admission to the program. Over half of the Nursing Facility consumers were directly admitted from an acute care hospital. The Home Care group was most likely to have a spouse, a sibling, or a friend for support, while the PASSPORT group was most likely to have children for support. The Nursing Facility group was most likely to have a designated caregiver or no support.

History of Hospital Admissions, Home Care and Waiver Enrollment | The Home Care group had the highest proportion of consumers with hospital admissions. However, it is likely that some of the Nursing Facility consumers were eligible for Medicare and the hospitalizations were paid by Medicare or some other health insurance. The Home Care group also had the highest proportion of consumers who had received home nursing care and home personal care. The overwhelming majority of consumers in all three groups did not have a history of waiver program enrollment within the year prior to their current admission/enrollment.

Summary Model Interpretation | Logistic regression was used to identify consumer characteristics at the time of enrollment/admission that were significantly related to the probability of a consumer being enrolled in a waiver program. Separate models were constructed for consumers age 40-59 and those 60 and older.

Limitations, Discussion, and Recommendations

Limitations | Documentation errors or lapses, inherent abstractor errors, medical record unavailability and misidentification of eligible patients all contribute to unavoidable imperfections in this study. In addition, consideration for interpretation of form questions, the expertise and experience of case workers or managers in observing the consumers may affect the study results.

Discussion | Patient profiles provided a better understanding of the consumers in the long-term care programs. The study population of the Home Care Services program included consumers 40-59 years old, and the majority of the PASSPORT consumers were evenly distributed between ages 60 and 70. The ages of the nursing facility consumers were distributed between 50 and 89 years old. The American Health Care Association (2007) indicates the average age on admission to a nursing facility is 79. Ohio’s Medicaid nursing facility population appears to be younger with an average age of 68. The race distribution reflected the Ohio Medicaid population and the proportion for all three groups were similar. The marital status was assessed and appeared to be based on consumer age rather than the long-term care programs.

There are level of care requirements for admission to all three programs. Included in the requirements are ADL and IADL impairments. The number of ADL impairments per consumer was comparable to the Scripps Study of Long-term Care (2007). Scripps found that 80% of the nursing facility patients and 27% of the PASSPORT group 4 or more ADL impairments.

The levels of care for each of the three groups were determined by the algorithm developed by ODJFS. The majority of consumers in the waiver program groups had intermediate levels of care. Most of the nursing facility consumers required a skilled level of care. As follows, the Nursing Facility group received the most skilled services. They also had the highest proportion of consumers with no rehabilitation potential.

Using logistic regression, the summary models were constructed for consumers age 40-59 and those 60 years and older to reveal characteristics related to the probability of a consumer more likely to be enrolled in a waiver program than a nursing facility. The interpretation revealed that nursing facility consumers, age 40 to 59, were more likely to have acute disabilities, require eating and toileting assistance, and require skilled treatment for pressure ulcers and respiratory care than the Home Care waiver group. The nursing facility consumers, age 60 and older, were more likely to have skilled rehabilitation services, require 24 hour supervision, assistance with toileting, and exhibit difficulty making decisions than the consumers in the PASSPORT waiver program.

Recommendations | The findings of this study support the following recommendations:

- For determination of a consumer's care needs, eligibility, planning, and monitoring across various agencies and long-term care services, a uniform assessment instrument with common definitions and standard criteria may be needed.
- The establishment of a quality assurance program with emphasis on documenting inter-rater reliability would improve consistency in the consumer information.
- A training program for personnel conducting consumer assessments would provide more accurate information across long-term care settings.
- Further study of the comparison of the levels of care assigned to the consumer and the levels of care established by use of the ODJFS developed algorithm could be valuable in determining if the algorithm is useful in deciding appropriate long-term care program placements.
- Further analysis of the medication categories by consumer age may provide additional understanding of the prescribing of anti anxiety, antidepressant, and antipsychotic medication.
- In order to more fully explain how consumers move between the waiver programs and nursing facilities, and how their care needs change over time, a second study would be needed to track a fixed group of consumers over a longer period of time.

1. Introduction

In January 2007, Ohio was one of 31 states and the fourth-largest grantee of the Money Follows the Person Demonstration enacted by Congress as part of the Federal Deficit Reduction Act of 2005. The Ohio Department of Job and Family Services Office of Ohio Health Plans (OHP) leads an interagency effort to meet the four objectives of the demonstration project as outlined below.

- Transition elderly people and persons with disabilities from institutional settings (nursing facilities, ICF/MR facilities and hospitals) to home and community based settings.
- Eliminate barriers, whether in State law, the State Medicaid Plan, the State budget, or otherwise, which prevent or restrict the flexible use of Medicaid funds to enable Medicaid-eligible individuals to receive support for appropriate and necessary long-term services in settings of their choice.
- Ensure continued provision of home and community-based services to eligible individuals who choose to transition from an institution to the community.
- Ensure that procedures are in place to provide quality assurance and continuous quality improvement.

Additionally, Am. Sub. H.B. 119 created a unified budget workgroup chaired by the Director of the Department of Aging. The workgroup, consisting of consumer advocates, providers, and state policymakers, was to recommend a new budgeting process that:

- Provides consumers with a choice of services that meet the consumers needs and improve the consumer's quality of life;
- Provides an array of services that meet the consumer's needs throughout life;
- Consolidates policymaking authority and the associated budgets for long-term services and supports in a single entity (promotes simplicity and flexibility); and
- Assures a system that is cost effective and links disparate services across agencies and jurisdictions.

The Money Follows the Person demonstration and the Unified Long-term Care Budget are complementary initiatives aimed at moving toward a system of long-term services and supports that maximizes choice and promotes community integration.

In May 2008, the "Front Door Stakeholder Group" was formed. This stakeholder group was formed as a component of Ohio's strategic goal to balance the long-term services and supports system. The group is modifying the entry into long-term services and supports by focusing attention on the functional criteria and operational processes that lead to consumer entrance. Listed below is Ohio's timeline for "front door" system reform as of July 2009.

FRONT DOOR SYSTEM REFORM TIMELINE

Phase 1	Short Term PASRR Impact	May 2008 – May 2009
Phase 2	Short Term Level of Care Impact (NF, ICF/MR, beginning steps toward a Single Screening Tool, Level of Care for Children)	June 2009 – Jan. 2011
Phase 3	Long-term PASRR Impact	Feb 2011 – Jan. 2012
Phase 4	Long-term Level of Care Impact (Tiered System, Front Door IT changes)	Feb. 2012 – June 2014

*Note: Phases 3 and 4 will likely occur together during the Feb. 2011 through June 2014 timeframe).

The Nursing Facility and Waiver Functional Assessment study provides information on profiles of levels of care criteria and long-term care placement in nursing facilities, PASSPORT, and Ohio Home Care Waivers. The study describes how characteristics of placement vary among consumers in each of the three programs. This study will provide the data necessary to inform the work of Phases 2 and 4.

Change to Ohio’s “front door” is necessary to system reform. Studies have suggested that individuals with long-term care needs are too often placed in nursing facilities when they might be better served at a lower level of care (Spector, Reschovsky, & Cohen, 1996). The uneven distribution of residents across settings stems from interacting factors of supply and demand such as geographical convenience, availability of beds, clinical need, lack of consensus among physicians about what constitutes the best setting for their patient, and regulations restricting services in personal care homes. Factors, like cost and ability of the patient’s family to make informed decisions, affect placement as well.

According to the 2005 Ohio Medicaid Profile, there were more than 86,000 Medicaid consumers in nursing homes with expenditures of over \$2.7 billion annually (ODJFS, 2006). This accounts for almost 22% of total Medicaid expenditures. Identification of long-term care needs and the preferences of consumers and family members for non-institutional care could provide important information to help prevent or delay nursing facility placement.

Ohio Medicaid’s current long-term care system is progressing toward greater flexibility in choosing long-term care options. An array of waiver programs is now available to serve people in alternative care settings who otherwise would need nursing home care.

One of these waiver programs is PASSPORT. The PASSPORT program serves people age 60 and above in their homes. PASSPORT served approximately 24,376 consumers in 2006 (ODJFS, 2006). The average Medicaid annual reimbursement for nursing home care is \$57,605 (Ohio Association of Area Agencies on Aging, 2006). The average annual cost for PASSPORT, including the cost of the screens, assessments, and services for those who qualify for home care, is \$13,310.

The Ohio Home Care Waiver is a limited-enrollment, cost-capped program of home and community services for people under age 60 with serious disabilities and unstable medical conditions. This program is for enrollees who are eligible for Medicaid coverage in a nursing home or hospital.

The Nursing Facility and Waiver Functional Assessment study provides information on profiles of levels of care criteria and long-term care placement in nursing facilities, PASSPORT, and Ohio Home Care Waivers. The study describes how characteristics of placement vary among consumers in each of the three programs.

2. Purpose

The Nursing Facility and Waiver Functional Assessment study is part of the Ohio Department of Job and Family Services (ODJFS) Medicaid Institutional Quality and Hospital Utilization Management Program. The study assesses patient characteristics, levels of care, and long-term care needs and services among consumers residing in nursing facilities, or enrolled in the PASSPORT or the Ohio Home Care Waiver.

The study objectives are as follows:

- To determine variations and frequencies in physical, clinical and level of care characteristics of consumers receiving nursing facility, PASSPORT and Ohio Home Care Waiver services.
- To determine associations of consumer characteristics with placement group through multinomial logistic regression analysis.
- To determine what associated factors or events precipitate admissions to nursing facility and long-term care waiver programs through descriptive analysis.

3. Methods

3.1. Population and Sample

Medicaid consumers were eligible for inclusion in the study if they met all of the following:

- Newly enrolled into the PASSPORT, or Ohio Home Care waiver programs, or newly admitted to a nursing facility, from October 1, 2006 through September 30, 2007
- Age 40 years and older at the time of enrollment/admission
- Enrolled/admitted for at least 2 months.

Eligible consumers were placed into one of three comparisons groups based on their most recent waiver enrollment or nursing facility admission during the study period. A stratified random sample of 1,374 eligible consumers was selected, with 458 sampled consumers coming from each of the three comparison groups. This sample size was chosen so that odds ratios as small as 2 could be detected with 80% power and 95% confidence. This value also included a 20% inflation factor to allow for unavailable and excluded records.

3.2. Study Group Tool and Development

The *Nursing Facility and Waiver Functional Assessment* Study Group convened four times between August 2007 and April 2008 to develop the study charge and quality indicators. Selected members of the group created the data collection tool and determined the sampling methodology. See Section 8 for a list of study group members.

A Microsoft Word version of the data collection tool and accompanying data dictionary were developed. Practice charts were used to test the tool and dictionary and identify necessary modifications. The study group then developed and tested a laptop computer tool, and made necessary edits and modifications. Nine registered nurses (RNs) experienced in chart review were trained in using the tool and data dictionary. In some instances, the multiple assessment forms had conflicting information regarding the consumer. A hierarchy of the forms for data collection purposes was developed for the nurse reviewers. A pilot study of 10 cases was completed and the results were reviewed by the Bureau of Community Access and Permedion study members.

3.3. Data Collection

A retrospective review of available administrative data was conducted, including the following Ohio Medicaid data sources:

- Recipient Master File
- Inpatient Hospital Claims
- Nursing Facility Claims
- Home Health Care Claims
- Emergency Mental Health Claims (Inpatient and Outpatient).

RN reviewers abstracted additional study data from the following sources:

- Comprehensive Assessment/Referral Evaluation (CARE) Tool
- Level of Care (LOC) Assessment (JFS form 3697)
- Level of Care Determination Worksheet and Data Collection Tool
- Pre-Admission Screening and Resident Review (PASARR SMI/MRDD)
- Identification Screen (JFS form 3622)
- Minimum Data Set-Version 2.0 (MDS)
- Program Eligibility Assessment Tool (PEAT)

3.4. Reliability

To evaluate inter-rater reliability, a sample of 30 records was selected for re-abstraction. Rates of overall agreement between the original abstraction and the re-abstraction ranged from 86%–100%. This variability can be explained by the fact that answers to some of the questions were more subjective than others. Kappa statistics were also calculated for 62 data collection fields, with 56 of the evaluated fields falling into the range of “Excellent.” See *Table 1* below.

Table 1. Agreement level between abstracted sample records

Variable Tested	Agreement Level	Kappa	Classification of Kappa value
Record Included	100%	100%	Excellent
Exclusion reason	100%	100%	Excellent
Bathing assistance needs	100%	100%	Excellent
Dressing assistance needs	100%	100%	Excellent
Toileting assistance needs	100%	100%	Excellent
Eating assistance needs	100%	100%	Excellent
Grooming assistance needs	100%	100%	Excellent
Mobility assistance needs	96%	93%	Excellent
Community access assistance needs	100%	100%	Excellent
Environmental management assistance needs	100%	***	***
Shopping assistance needs	100%	100%	Excellent
Meal preparation assistance needs	100%	100%	Excellent
Laundry assistance needs	100%	100%	Excellent
Medication administration assistance needs	100%	100%	Excellent
Urinary incontinence	96%	95%	Excellent
Fecal incontinence	100%	100%	Excellent
Chronic disability	100%	100%	Excellent
Chronic disability manifested before age 22	100%	100%	Excellent

Variable Tested	Agreement Level	Kappa	Classification of Kappa value
Chronic disability likely to continue indefinitely	100%	***	***
Functional limitation in self care	100%	100%	Excellent
Functional limitation in understanding	100%	100%	Excellent
Functional limitation in learning	100%	100%	Excellent
Functional limitation in mobility	100%	100%	Excellent
Functional limitation in self direction	100%	100%	Excellent
Functional limitation in capacity for independent living	100%	***	***
Functional limitation in communication	100%	100%	Excellent
Functional limitation in economic self-sufficiency	100%	100%	Excellent
Disoriented to person	96%	65%	Good
Disoriented to place	100%	100%	Excellent
Disoriented to time	93%	71%	Good
Confusion	93%	83%	Excellent
Withdrawn, isolates self	96%	84%	Excellent
Hyperactive	96%	***	***
Mood swings	100%	100%	Excellent
Exhibits bizarre behavior	93%	46%	Good
Neglect to self	86%	58%	Good
Verbally abusive/aggressive	96%	65%	Good
Physically abusive/aggressive	93%	63%	Good
Wanders mentally	93%	76%	Excellent
Wanders physically	96%	84%	Excellent
Agitation	100%	100%	Excellent
Cannot make own decisions	96%	84%	Excellent
Difficulty sleeping	93%	81%	Excellent
Difficulty concentrating	96%	84%	Excellent
Supervision required	100%	100%	Excellent
Frequency of rehabilitation services	100%	100%	Excellent
Frequency of parenteral nutrition	96%	78%	Excellent
Frequency of respiratory care	96%	78%	Excellent
Frequency of chemotherapy	100%	***	***
Frequency of dialysis	96%	65%	Good
Frequency of treatment for pressure ulcers	96%	78%	Excellent
Frequency of surgical wound care	100%	***	***
Frequency of burn care	100%	***	***
Frequency of tube feeding	100%	100%	Excellent

Variable Tested	Agreement Level	Kappa	Classification of Kappa value
Frequency of diabetes monitoring and insulin injections	100%	***	***
Frequency of skilled nursing	100%	100%	Excellent
Other skilled services required	100%	100%	Excellent
Rehabilitation potential	100%	100%	Excellent
Receiving antianxiety medication	100%	100%	Excellent
Receiving antidepressant medication	100%	100%	Excellent
Receiving antipsychotic medication	100%	100%	Excellent
Prior living arrangements	100%	100%	Excellent
Family/support composition documented	93%	89%	Excellent
Spouse	100%	100%	Excellent
Sibling	100%	100%	Excellent
Child	100%	100%	Excellent
Friend	93%	76%	Excellent
Neighbor	100%	100%	Excellent
Designated caregiver	100%	100%	Excellent
No family/support	100%	***	***
Marital status	100%	100%	Excellent

*** The inter-rater matrix for these variables is non-symmetric; therefore, a kappa statistic cannot be computed.

3.5. Statistical Analysis

Descriptive statistics were calculated for quality indicators within each of the three comparison groups. These include frequency, percent, mean, median, and standard deviation, as appropriate. Graphs and charts were constructed to examine trends and relative associations.

Logistic regression analysis was used to identify consumer characteristics significantly related to the consumer enrolling in a waiver program as opposed to being admitted to a nursing facility.

Separate models were constructed for consumers age 40 through 59 years and age 60 and over, corresponding to the eligible age ranges of the Ohio Home Care and PASSPORT waiver programs, respectively. A forward selection method was employed with significant variables ($p < 0.05$) being added to the models one at a time, until no significant variables remained. The models were then reviewed by the study team, and terms without clinical or practical significance were removed. Interactions between the main effects were tested, but none were retained in the final models due to their lack of statistical and/or practical significance.

Continuous variables were then analyzed to verify the assumption of linearity in the logit using the quartile method (Hosmer & Lemeshow, 2000). Variables that did not meet this assumption were re-scaled into appropriate categorical variables and the regression models were refitted.

The models were then assessed for goodness of fit and discrimination using the Hosmer Lemeshow Test and the area under the ROC curve, respectively. Neither model had significant lack of fit (HC p-value=0.7925, PP p-value=0.8275), and both had excellent discrimination (HC = 99%, PP=98%).

Influential data points were also reviewed, but it was determined that no individual points changed the model coefficients enough to warrant removal. Odds ratios and associated 95% confidence intervals were estimated for all variables included in the final models.

4. Quality Indicators

4.1. Age

This quality indicator measures the relative frequency of age in years for consumers at the beginning of their most recent placement.

Sample level measurement

Numerator: Number of consumers by age in years

Denominator: Number of consumers in the placement group

4.2. Gender

This quality indicator measures the relative frequency of consumer gender.

Sample level measurement

Numerator: Number of consumers by gender

Denominator: Number of consumers in the placement group

4.3. Race

This quality indicator measures the relative frequency of consumer race.

Sample level measurement

Numerator: Number of consumers by race

Denominator: Number of consumers in the placement group

4.4. Marital status

This quality indicator measures the relative frequency of consumer marital status.

Sample level measurement

Numerator: Number of consumers by marital status

Denominator: Number of consumers in the placement group

4.5. County Type

This quality indicator measures the relative frequency of consumer county type (Appalachian, Metro, Rural, Suburban).

Sample level measurement

Numerator: Number of consumers by county type

Denominator: Number of consumers in the placement group

4.6. County Location

This quality indicator measures the relative frequency of consumer county type (Central, Northeast, Northwest, Southeast, and Southwest).

Sample level measurement

Numerator: Number of consumers by county location

Denominator: Number of consumers in the placement group

4.7. Top Diagnoses

This quality indicator measures the relative frequency of the top coded diagnoses.

Sample level measurement

Numerator: Number of consumers by coded diagnosis (primary or secondary)

Denominator: Number of consumers in the placement group

4.8. Diagnosis of Behavioral Health Conditions

This quality indicator measures the proportion of consumers who have a primary or secondary diagnosis of a Mental Disorder.

Sample level measurement

Numerator: Number of consumers with a diagnosis of a Mental Disorder

Denominator: Number of consumers in the placement group

4.9. Diagnosis of Traumatic Brain Syndrome

This quality indicator measures the proportion of consumers who have a primary or secondary diagnosis of Traumatic Brain Syndrome.

Sample level measurement

Numerator: Number of consumers with a diagnosis of Traumatic Brain Syndrome

Denominator: Number of consumers in the placement group

4.10. Preceding Waiver Program

This quality indicator measures the relative frequency of waiver program enrollment in the month prior to the consumer's current placement.

Sample level measurement

Numerator: Number of consumers by preceding waiver program

Denominator: Number of consumers in the placement group

4.11. Level of Care

This quality indicator measures the relative frequency of consumers' levels of care at the beginning of their most recent placements. Each consumer's level of care (LOC) was determined according to the following algorithm based on abstracted data elements:

- None
 - Did not require supervision due to a cognitive impairment; and
 - Did not require hands-on help with at least 3 Instrumental Activities of Daily Living (IADLs) and at least supervision of at least one Activity of Daily Living (ADL); and
 - Did not require hands-on help with at least 3 IADLs and at least supervision of medication administration
- Protective (PLOC)

- Did not meet the minimum criteria for Intermediate, ICF/MRDD, or Skilled LOCs; or
- Has a cognitive impairment that requires some, but less than 24 hours per day awake supervision to prevent harm; or
- Requires hands-on assistance with 3 IADLs and supervision of one ADL; or
- Requires hands-on assistance with 3 IADLs and supervision of medication administration
- ICF/MRDD (ICFMR)
 - Met the minimum criteria for PLOC; and
 - Has a diagnosis of Mental Retardation or another diagnosed condition other than mental illness; and
 - The condition manifested prior to age 22; and
 - The condition is expected to continue indefinitely; and
 - The condition has resulted in substantial functional limitations in at least 3 major life areas; and
 - Would benefit from services and support designed and coordinated specifically to promote consumer's acquisition of skills to decrease or prevent regression in the performance of tasks related to the major life areas; and
 - The consumer or legal guardian agrees to the individual's participation in and individualized plan of services and supports
- Intermediate (ILOC)
 - Met the minimum criteria for PLOC, but did not meet the minimum criteria of ICFMR and SLOC; and
 - Has a cognitive impairment, which causes the consumer to require 24 hour per day awake direct supervision to prevent harm; or
 - Has physician's orders for at least one skilled nursing service; or
 - Has physician's orders for at least one skilled rehabilitation service; or
 - Requires at least hands-on assistance with one ADL and hands-on assistance with medication administration; or
 - Requires at least hands-on assistance with at least 2 ADLs
- Skilled (SLOC)
 - Met the minimum criteria for both PLOC and ILOC, but did not meet the minimum criteria for an ICFMR; and
 - Has an unstable condition and physician's orders for a skilled nursing service which must be delivered 7 days per week by a registered nurse (RN) due to the instability of the individual's condition and the complexity of the needed service; or
 - Has an unstable condition and physician's orders for a skilled nursing service which must be delivered at least 5 days per week by a licensed or certified technical or professional health care personnel due to the instability of the consumer's condition and the complexity of the needed service
 - Has an unstable condition and physician's orders for a skilled nursing service which must be delivered at least 5 days per week by a licensed or certified technical or professional health care personnel due to the instability of the consumer's condition and the presence of medical complications.

Sample level measurement

Numerator: Number of consumers by level of care

Denominator: Number of consumers in the placement group

4.12. ADL assistance

This quality indicator measures the relative frequency of ADL assistance needs in each of the following areas:

- Bathing
- Dressing
- Toileting
- Eating
- Grooming
- Mobility.

Sample level measurement

Numerator: Number of consumers by level of assistance needed (no help, supervision or hands-on)

Denominator: Number of consumers in the placement group

4.13. Number of ADL Impairments

This quality indicator measures the average number of ADL impairments based on the ADL assistance indicator defined above. Consumers needing hands-on assistance will be considered to have ADL impairment.

Sample level measurement

Numerator: Total number of ADL impairments

Denominator: Number of consumers in the placement group

4.14. IADL assistance

This quality indicator measures the relative frequency of IADL assistance needs in each of the following areas:

- Community access
- Environment management
- Shopping
- Meal preparation
- Laundry

Sample level measurement

Numerator: Number of consumers by level of assistance needed (no help, supervision or hands-on)

Denominator: Number of consumers in the placement group

4.15. Number of IADL Impairments

This quality indicator measures the average number of IADL impairments based on the IADL assistance indicator defined above. Consumers needing hands-on assistance will be considered to have IADL impairment.

Sample level measurement

Numerator: Total number of IADL impairments

Denominator: Number of consumers in the placement group

4.16. Medication Administration

This quality indicator measures the relative frequency of medication administration assistance needs.

Sample level measurement

Numerator: Number of consumers by level of assistance needed (no help, supervision or hands-on)

Denominator: Number of consumers in the placement group

4.17. Incontinence

This quality indicator measures the relative frequency of incontinence by both type (urinary, fecal) and frequency of occurrence (frequent, occasional, none).

Sample level measurement

Numerator: Number of consumers by frequency and type of incontinence

Denominator: Number of consumers in the placement group

4.18. Chronic Disabilities

This quality indicator measures the proportion of consumers who have a severe chronic disability attributed to a condition other than mental illness, but resulting in impairment of general intellectual functioning or adaptive behavior.

Sample level measurement

Numerator: Number of consumers with mental retardation/developmental disabilities

Denominator: Number of consumers in the placement group

4.19. Chronic Disability in Childhood

This quality indicator measures the proportion of consumers with chronic disability that manifested before the age of 22.

Sample level measurement

Numerator: Number of consumers with chronic disability that manifested before age 22

Denominator: Number of consumers with chronic disability in the placement group

4.20. Chronic Disability Functional Limitations

This quality indicator measures the proportion of consumers with chronic disability who have substantial functional limitations in the following areas of major life activity:

- Self care
- Understanding
- Learning
- Mobility
- Self direction
- Capacity for independent living.
- Communication
- Economic self-sufficiency

Sample level measurement

Numerator: Number of consumers with substantial functional limitations by major life activity

Denominator: Number of consumers with chronic disability in the placement group

4.21. Behavioral Characteristics

This quality indicator measures the proportion of consumers who have each of the following behavioral characteristics:

- Disoriented to person
- Disoriented to place
- Disoriented to time
- Confusion
- Withdrawn, isolates self
- Hyperactive
- Mood swing
- Exhibits bizarre behavior
- Neglect to self
- Verbally abusive or aggressive
- Physically abusive or aggressive
- Wanders mentally
- Wanders physically
- Agitation
- Cannot make own decisions
- Difficulty sleeping
- Difficulty concentrating.

Sample level measurement

Numerator: Number of consumers with the specified behavioral characteristic

Denominator: Number of consumers in the placement group

4.22. Supervision Needs

This quality indicator will determine the relative frequency of daily supervision needs (24 hours, Partial time, None).

Sample level measurement

Numerator: Number of consumers by daily level of supervision needed

Denominator: Number of consumers in the placement group

4.23. Skilled Care

This quality indicator measures the proportion of consumers who require each of the following skilled services:

- Rehabilitation services
- Parenteral nutrition
- Respiratory care
- Chemotherapy
- Dialysis
- Treatment for pressure or status ulcers
- Surgical wound care
- Burn care
- Tube feeding
- Diabetes monitoring and insulin injections
- Nursing (reported as nursing/no nursing)
- Other.

Sample level measurement

Numerator: Number of consumers requiring skilled services by type

Denominator: Number of consumers in the placement group

4.24. Rehabilitation Potential

This quality indicator measures the relative frequency of rehabilitation potential (Improve, Maintain, None).

Sample level measurement

Numerator: Number of consumers by level of rehabilitation potential

Denominator: Number of consumers in placement group, where the measurement of rehabilitation potential is applicable

4.25. Medications

This quality indicator measures the proportion of consumers receive medications within the following categories:

- Antianxiety
 - Antidepressants
 - Antipsychotics.
-

Sample level measurement

Numerator: Number of consumers receiving medications of the specified type

Denominator: Number of consumers in the placement group

4.26. Living Arrangements

This quality indicator measures the relative frequency of consumers' living arrangements prior to their current program placements:

- Own home/apartment
- Relative or friend
- Congregate housing
- NF
- ICF-MR
- Psychiatric hospital/unit
- Acute care hospital
- Homeless
- Other
- Unable to determine.

Sample level measurement

Numerator: Number of consumers by immediate prior living arrangement

Denominator: Number of consumers in the placement group

4.27. Family/Support Composition

This quality indicator measures the proportion of consumers who have the following family and/or supports:

- Spouse
- Sibling
- Children
- Friend
- Neighbor
- Designated Caregiver
- None
- Unable to determine.

Sample level measurement

Numerator: Number of consumers with the specified family or support

Denominator: Number of consumers in the placement group

4.28. History of Hospital Admissions

This quality indicator measures the relative frequency of the number of acute hospital admission for consumers within 1 year of their current program admission or enrollment.

Sample level measurement

Numerator: Number of consumers by number of hospital admissions

Denominator: Number or consumers in the placement group

4.29. History of Home Care

This quality indicator measures the relative frequency of the number of home care nursing and/or personal care units (state plan home health or private duty nursing) for consumers within 1 year of their current program admission or enrollment.

Sample level measurement

Numerator : Number of consumers by number of nursing units

Denominator : Number of consumers in the placement group

Numerator 2: Number of consumers by number of personal care units

Denominator 2: Number of consumers in the placement group

4.30. History of Waiver Enrollment

This quality indicator measures the relative frequency of the number of months of waiver enrollment within 1 year of the current program admission or enrollment.

Sample level measurement

Numerator: Number of consumers by number of months of waiver enrollment

Denominator: Number or consumers in the placement group

4.31. Precipitating Factors

This quality indicator measures the proportion of consumers whose program admission records contain documentation that any of the following events precipitated their admission to the current program:

- Loss of informal caregiver/support
- Facility admissions for psychiatric reasons including emergency mental health services within the past 24 months (Psychiatric patients only)
- Increase or change in psychiatric symptoms, including but not restricted to exacerbation of Anxiety Disorder, Depression, Bipolar, and/or Schizophrenia symptoms (Psychiatric patients only)
- Change in physical function (includes mobility, eating, continence issues)
- Change in cognitive functions (includes memory problems, decision making, and communication problems, uncooperative, resistance to care, socially inappropriate/disruptive behavior)
- Environmental issues (includes personal safety issues, inability to care for self, inability to keep home and surroundings habitable)
- Inability to obtain appropriate providers, including:
 - Nursing facility placement
 - Waiver program placement
 - Home care – general
 - Home care – skilled
 - Independent provider availability
 - Other.

This indicator is considered exploratory and will not be included in the planned logistic regression analysis.

Sample level measurement

Numerator: Number of consumers by precipitating factors

Denominator: Number of consumers in the placement group

5. Results

5.1. Age

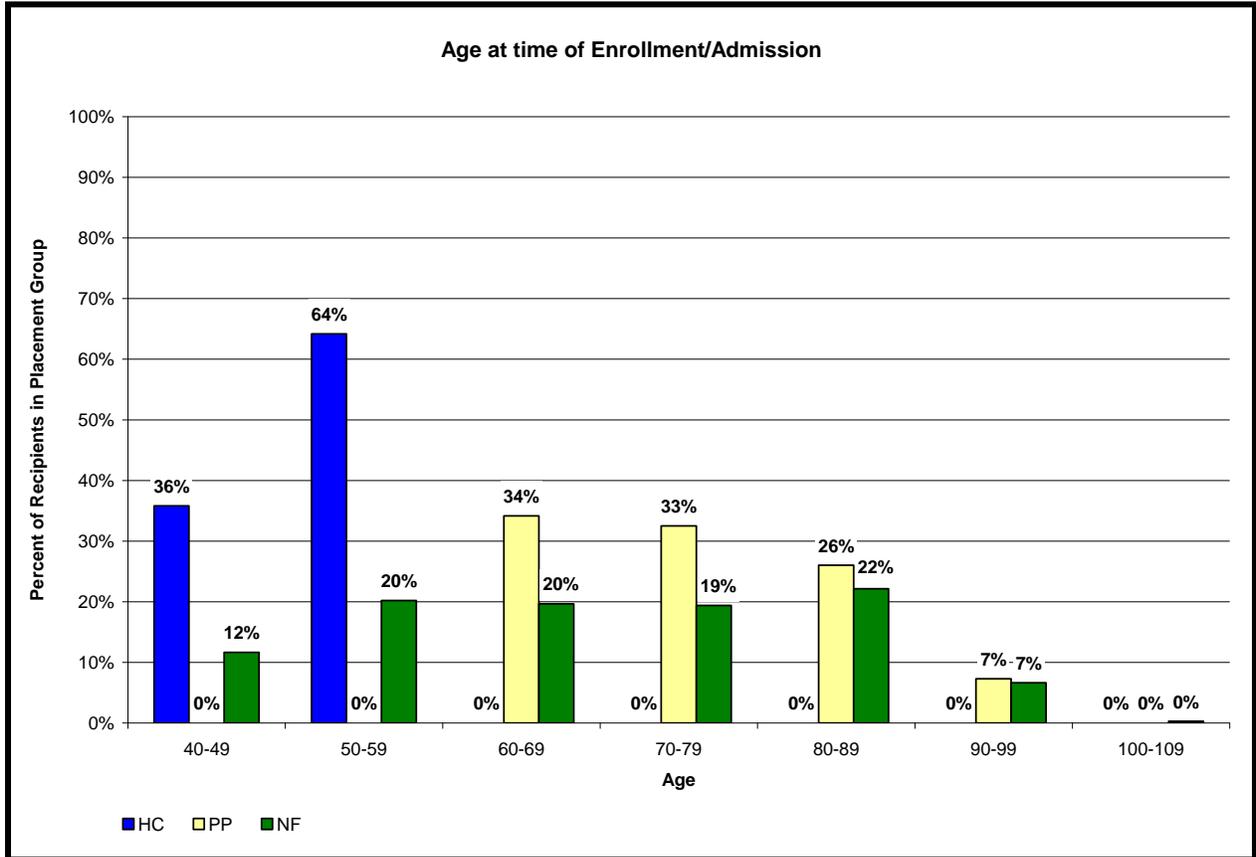


Figure 1. Age at time of Enrollment/Admission

The age requirements for the Home Care and PASSPORT waiver programs do not overlap, with the Home Care program for 40-59 years olds and the PASSPORT program for those 60 years of age and older. The majority of Home Care enrollees are between the ages of 50 and 59. The majority of PASSPORT enrollees are evenly distributed between the ages of 60 and 79. The majority of nursing facility residents are evenly distributed between 50 and 89 years of age.

Source: Recipient Master File

5.2. Gender

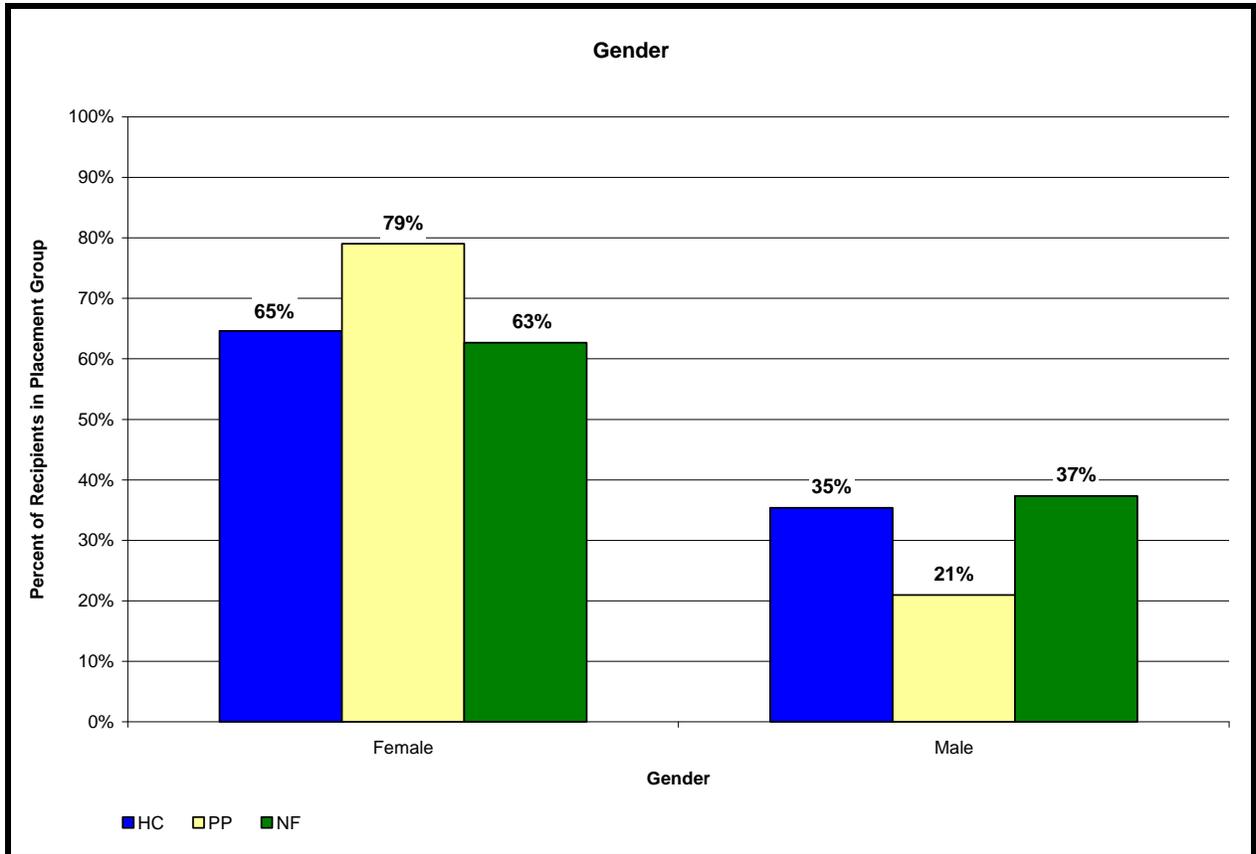


Figure 2. Gender

The gender distribution of the Home Care and Nursing Facility groups were very similar, but the PASSPORT group had a slightly higher proportion of females.

Source: Recipient Master File

5.3. Race

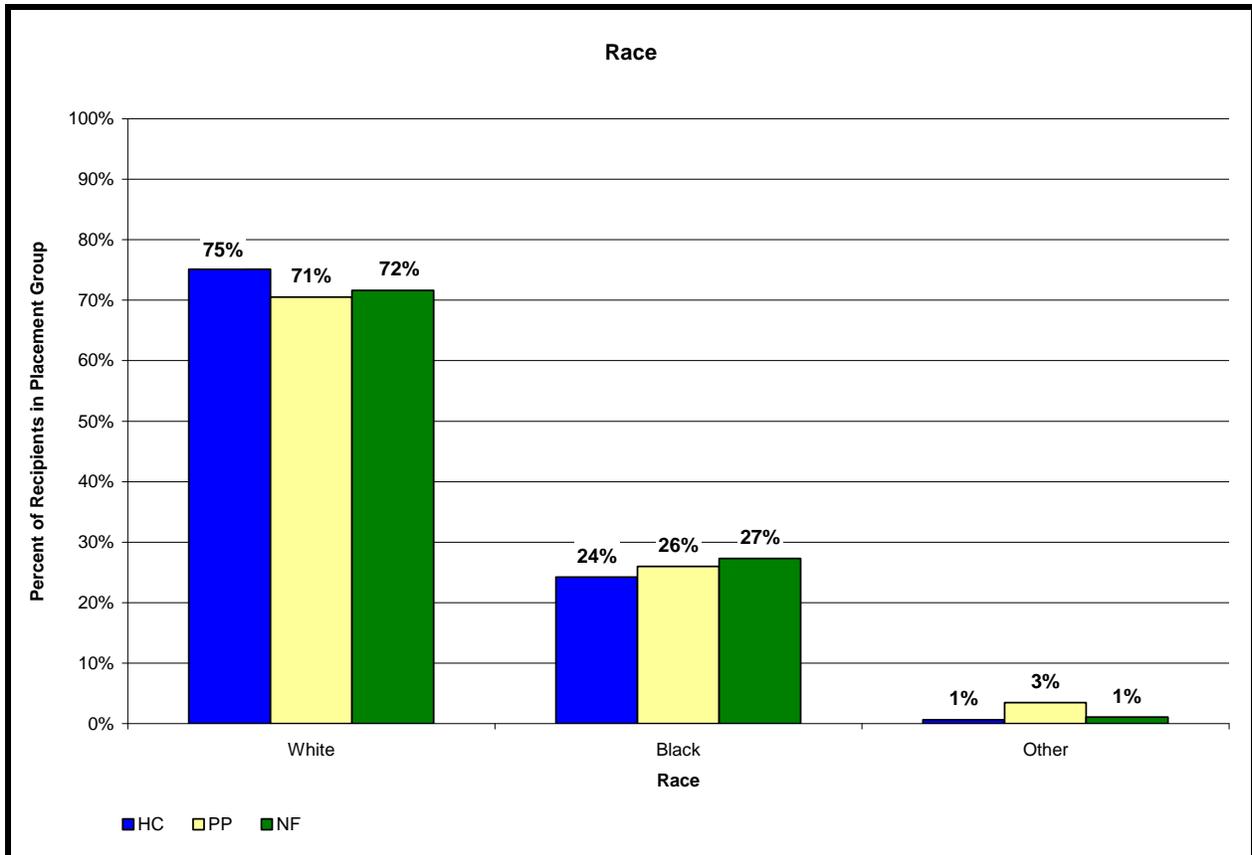


Figure 3. Race

The racial distributions of the 3 groups were similar to both each other and to the Ohio Medicaid population in general.

Source: Recipient Master File

5.4. Marital Status

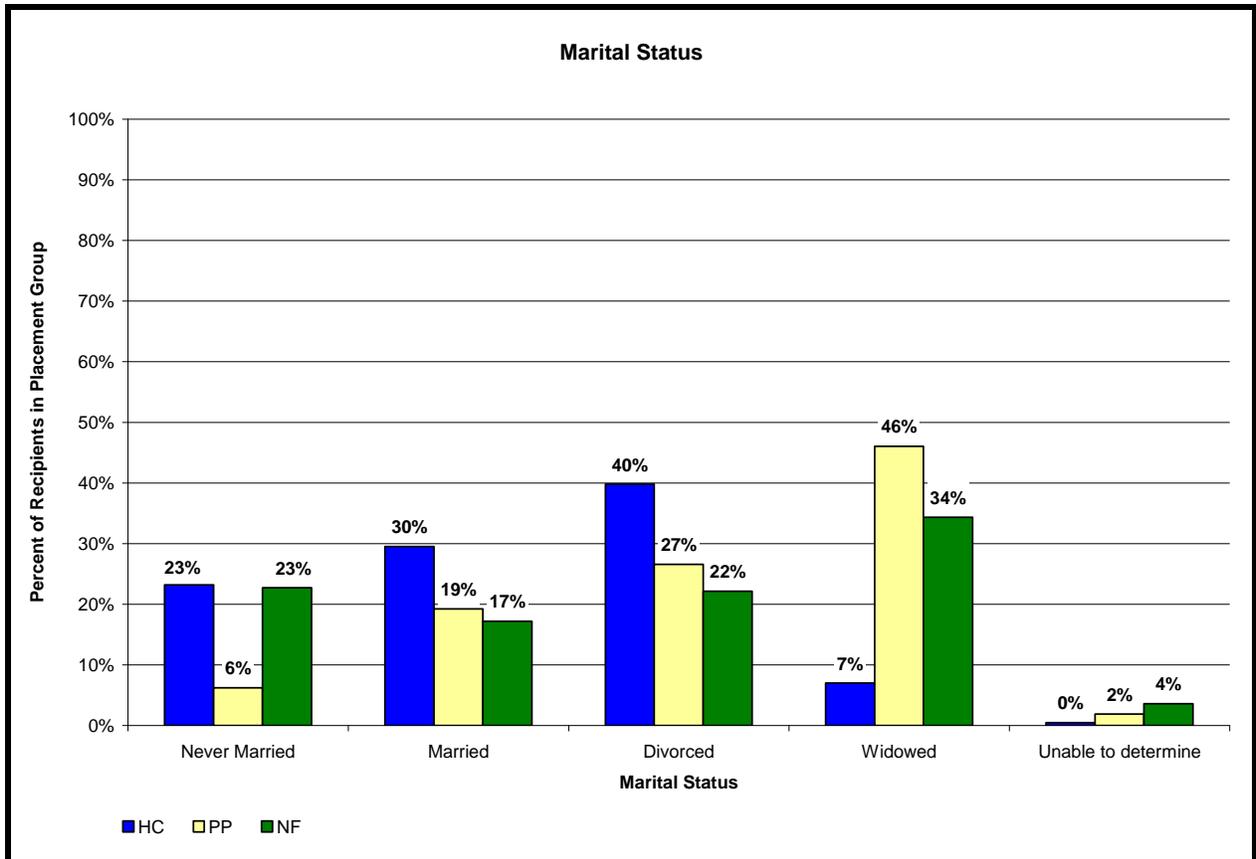


Figure 4. Marital Status

The most common marital status in the Home Care group was *divorced*, followed by *married*, *never married*, and *widowed*. The most common status in both the PASSPORT and Nursing Facility groups was *widowed*. The PASSPORT group then followed a pattern similar to the Home Care group, but the Nursing Facility group had roughly equal proportions of residents who were *divorced* or *never married*. The least common status in the Nursing Facility group was *married*.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.5. County Type

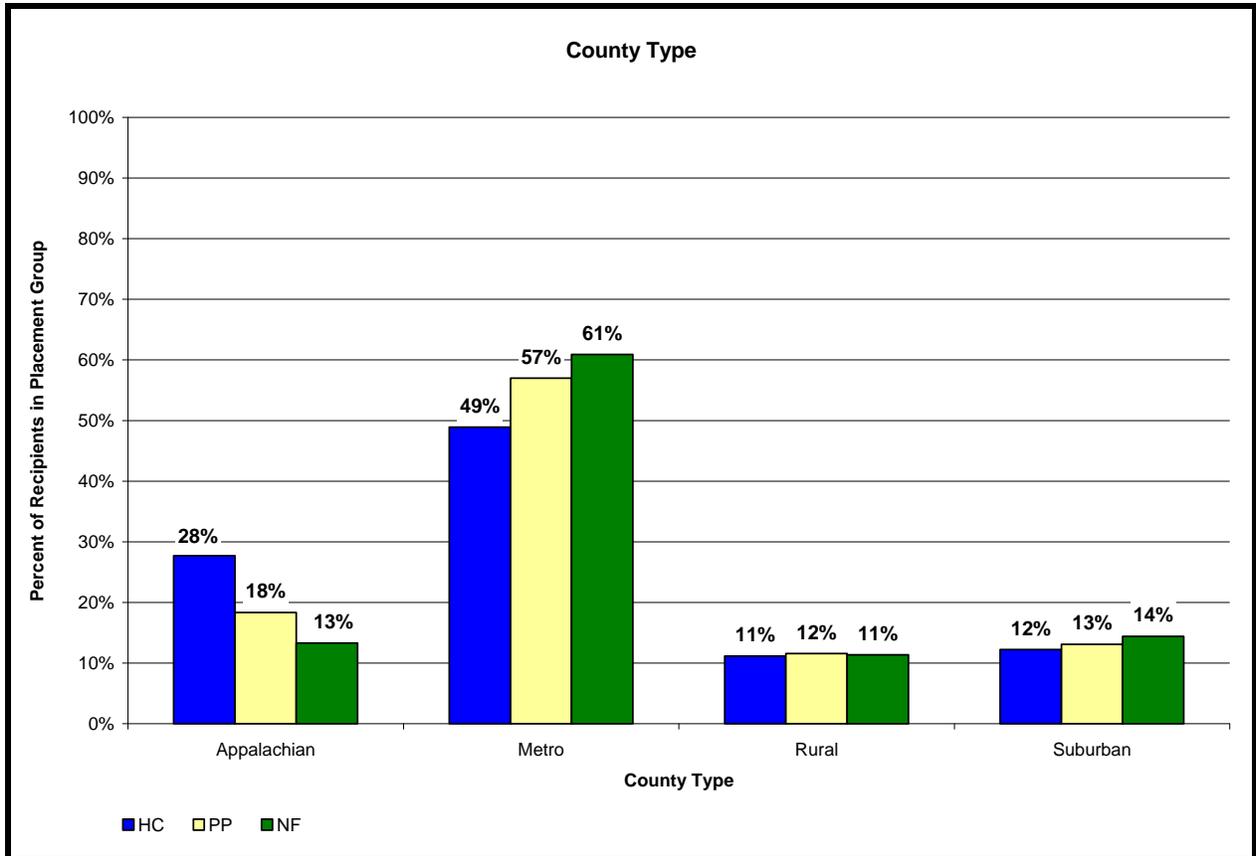


Figure 5. County Type

The distribution between the different county types was similar for all 3 groups; however, there were a few notable differences between the Home Care and Nursing Facility groups. The Home Care group had a higher proportion of consumers in Appalachian counties, while the Nursing Facility group had a higher proportion of consumers in Metro counties. Counties and county types are listed in Appendix A.

Source: Recipient Master File

5.6. County Location

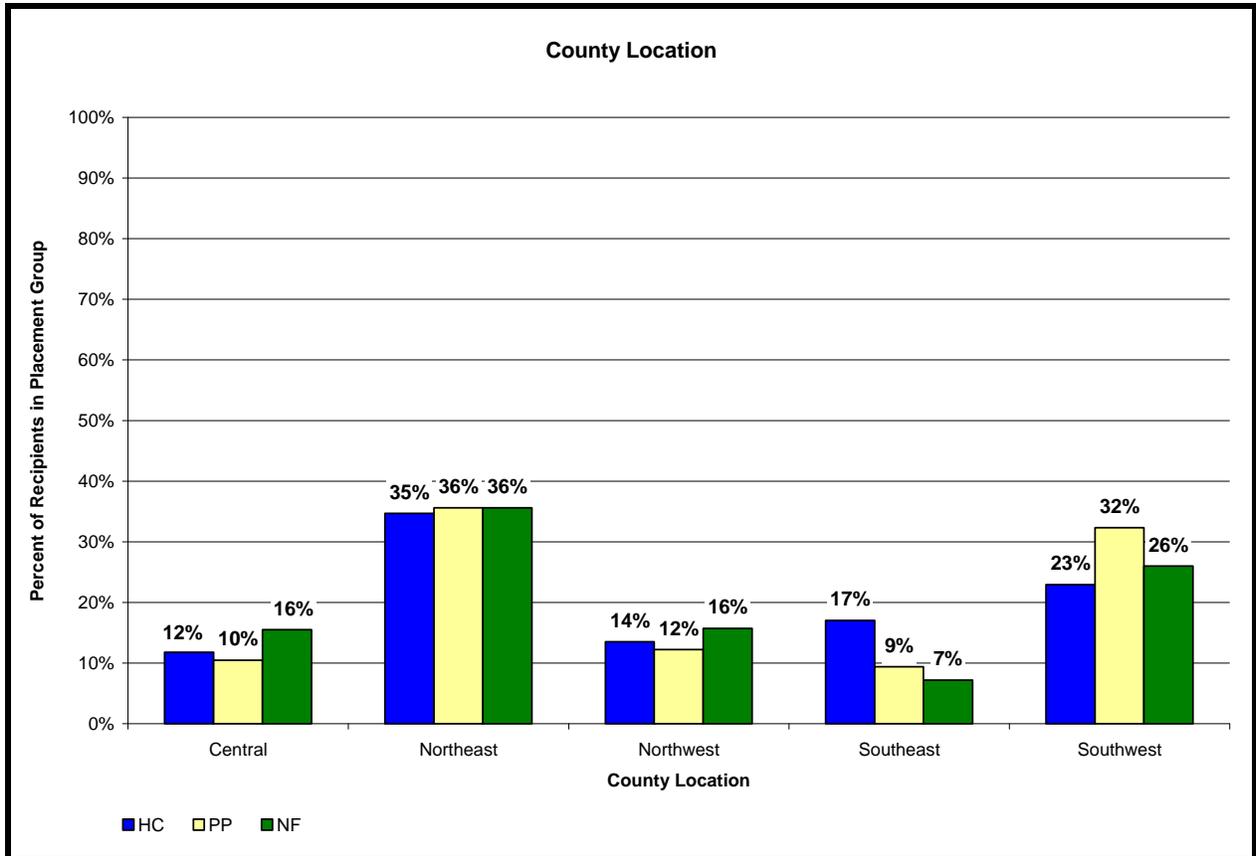


Figure 6. County Location

The Home Care group had a higher proportion of consumers in the southeast, the PASSPORT group had a higher proportion in the Southwest, and the Nursing Facility group had slightly higher proportions in both the Central and Northwest regions. Counties and county locations are listed in Appendix B.

Source: Recipient Master File

5.7. Top Diagnoses

Group	Diagnosis		# of Consumers	% of Consumers
HC	250	Diabetes mellitus	234	55%
	786	Symptoms involving respiratory system and other chest symptoms	192	45%
	780	General symptoms	191	45%
	401	Essential hypertension	184	43%
	V72	Special investigations and examinations	138	32%
	496	Chronic airway obstruction, not elsewhere classified	123	29%
	729	Other disorders of soft tissues	123	29%
	719	Other and unspecified disorders of joint	122	29%
	724	Other and unspecified disorders of back	119	28%
	V58	Encounter for other and unspecified procedure and aftercare	110	26%
PP	401	Essential hypertension	228	62%
	250	Diabetes mellitus	196	53%
	786	Symptoms involving respiratory system and other chest symptoms	191	52%
	780	General symptoms	163	44%
	496	Chronic airway obstruction, not elsewhere classified	129	35%
	788	Symptoms involving urinary system	126	34%
	715	Osteoarthritis and allied disorders	121	33%
	719	Other and unspecified disorders of joint	109	30%
	428	Heart failure	108	29%
	729	Other disorders of soft tissues	108	29%
NF	250	Diabetes mellitus	111	31%
	401	Essential hypertension	70	19%
	294	Persistent mental disorders due to conditions classified elsewhere	47	13%
	331	Other cerebral degenerations	41	11%
	244	Acquired hypothyroidism	35	10%
	290	Dementias	35	10%
	V57	Care involving use of rehabilitation procedures	35	10%
	780	General symptoms	32	9%
	438	Late effects of cerebrovascular disease	29	8%
	272	Disorders of lipid metabolism	24	7%

Table 2. Top Diagnoses

Diabetes was the most commonly coded diagnosis in both the Home Care and Nursing Facility groups, and was the second most common diagnosis in the Nursing Facility group. As expected, dementia, mental disorders, and rehabilitation procedures are among the top diagnoses in the Nursing Facility group, but not in the Home Care or PASSPORT groups.

Source: Primary and/or secondary diagnoses coded on all available professional and facility claims.

* Supplementary Classification of Factors Influencing Health Status

- There are 10 codes below V72 that define this diagnosis in greater detail. This code should not be used on a Medicaid or Medicare reimbursement claim.

5.8. Diagnosis of Behavioral Health Conditions

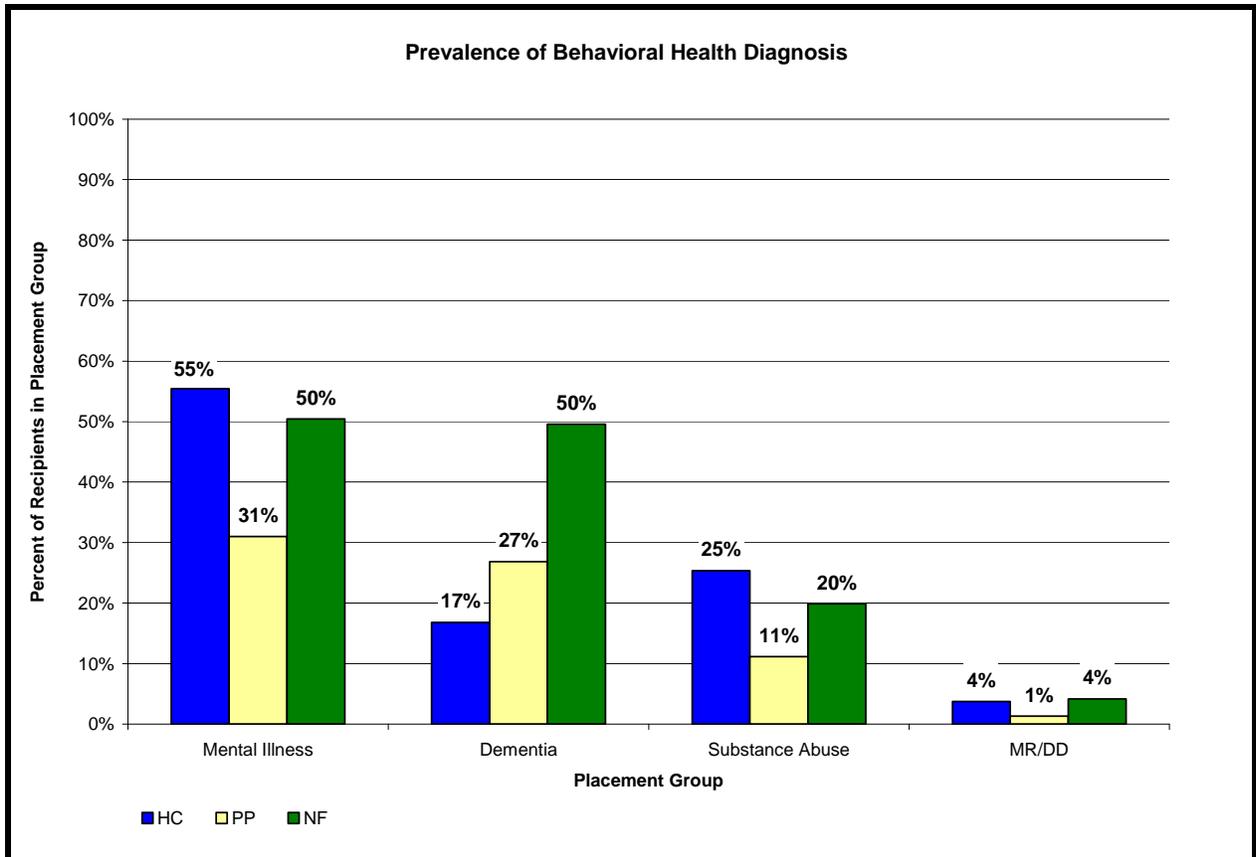


Figure 7. Prevalence of Behavioral Health Diagnoses

At least half of the consumers in each of the 3 groups had some type of behavioral health diagnosis coded in claims data. The PASSPORT group had the highest proportion with 79%, followed by the Home Care group with 68% and the Nursing Facility group with 50%.

The Home Care group had the highest proportion of consumers with a mental illness, followed by the NF group at 50% and the PASSPORT group at 31%. Dementia was most common in the Nursing Facility group, while substance abuse was highest in the Home Care group. The prevalence of MR/DD was less than 5% in all 3 groups.

Source: Primary and/or secondary diagnoses are coded on all available professional and facility claims. The behavioral health diagnoses are listed according to the ICD-9-CM codes in the *Mental Disorders* section (Ingenix, 2007) which includes codes 290 through 319. Substance induced disorders, withdrawal, dependence and abuse codes, 291 through 305, are within this section. The diagnosis codes used to identify the behavioral health conditions are listed in Appendix C.

5.9. Diagnosis of Traumatic Brain Syndrome

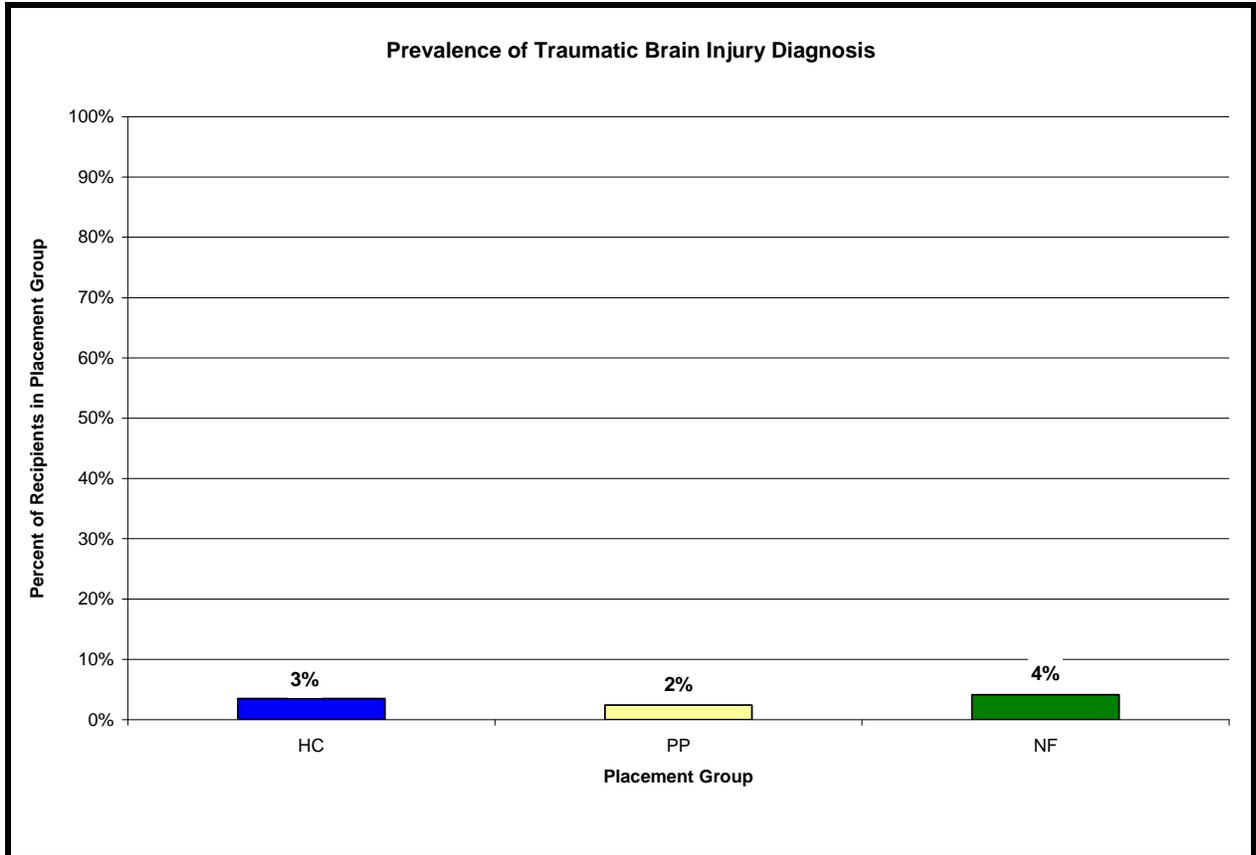


Figure 8. Prevalence of Traumatic Brain Injury Diagnosis

Traumatic brain injuries were not common in any of the 3 groups. The Nursing Facility group had the highest proportion at 4%, followed by the Home Care group at 3% and the PASSPORT group at 2%. The overall prevalence of traumatic brain injuries may be higher in younger patients. However, the age of the study population did not include consumers under 40 years of age.

Consumers were found to have traumatic brain injuries if they had any medical claims in the available data with an ICD-9 diagnosis code of (Langlois 2003):

- 800.0 – 80.9: Fracture of the Vault or Base of the Skull
- 803.0 – 804.9: Other and Unqualified Multiple Fractures of the Skull
- 850.0 – 854.: Intracranial Injury, including Concussion, Contusion, Laceration, and Hemorrhage
- 959.0: Head Injury, Unspecified.

Source: Primary and/or secondary diagnoses coded on all available professional and facility claims.

5.10. Preceding Waiver Program Placement

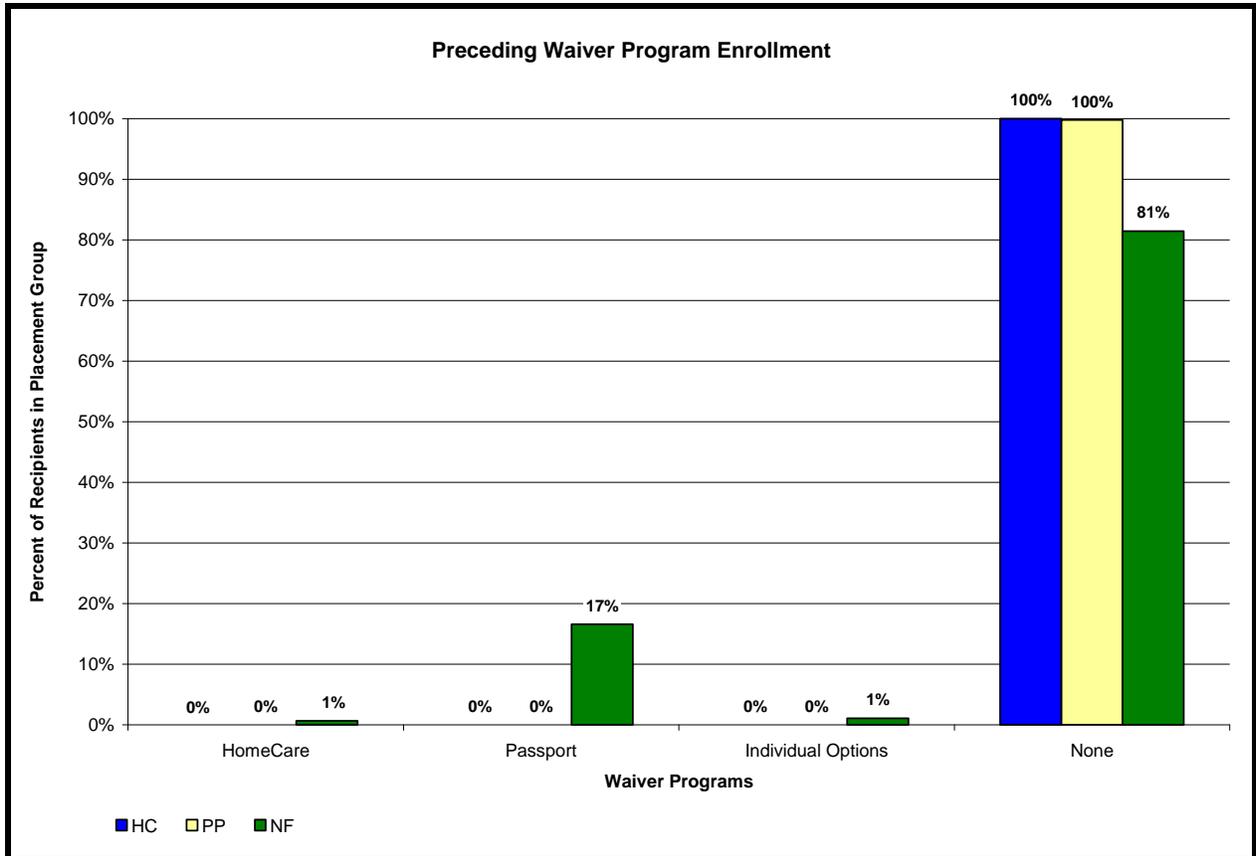


Figure 9. Preceding Waiver Program Enrollment

None of the Home Care and PASSPORT groups were enrolled in a waiver program during the month preceding their enrollment into the waiver programs of interest in this study. The majority of the Nursing Facility group was also not enrolled in a waiver program during the month preceding their nursing facility admission, but 17% were enrolled in PASSPORT, 1% in Home Care, and 1% in Individual Options.

Source: Recipient Master File

5.11. Level of Care

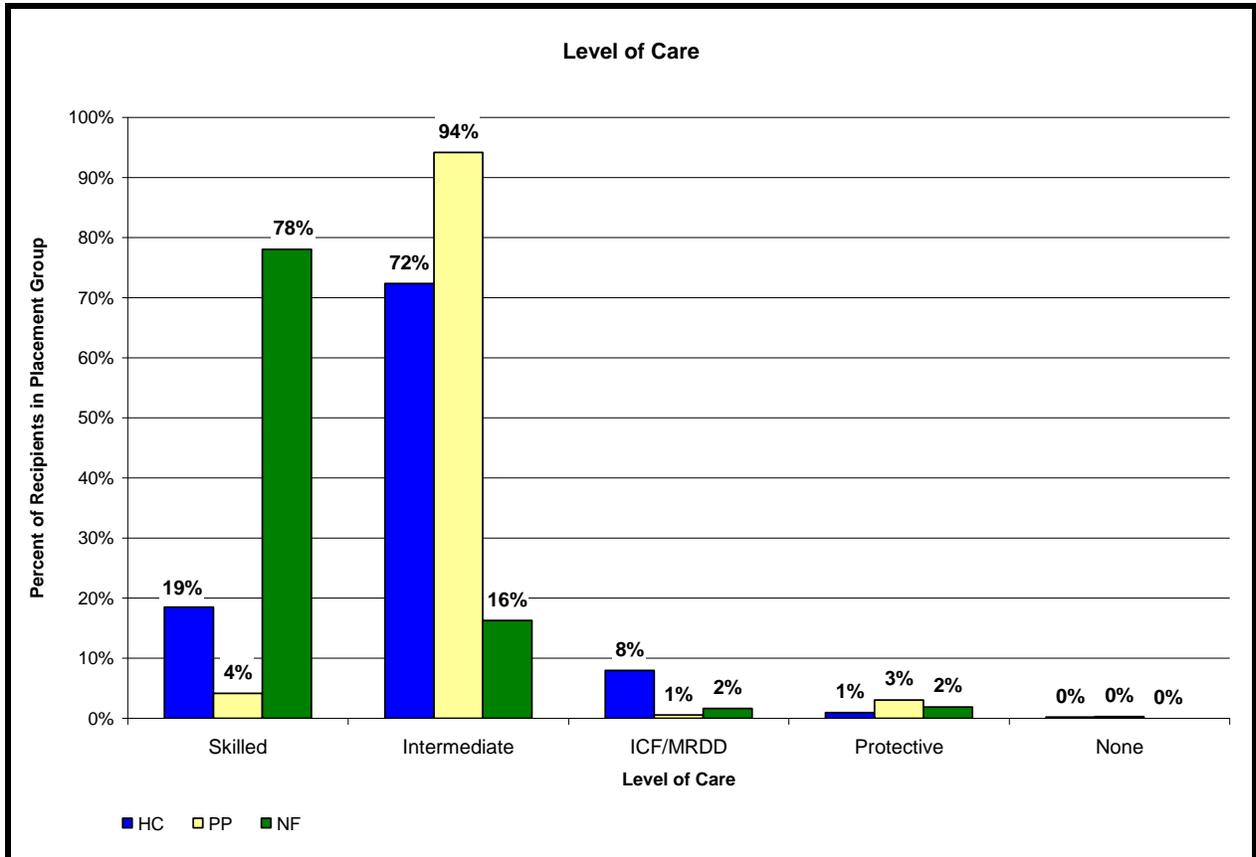


Figure 10. Level of Care

Based on the algorithm defined on page 17, the majority of the waiver program groups had documentation to support an intermediate level of care, while the majority of the Nursing Facility group had a skilled level of care.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.12. ADL assistance

5.12.1. Bathing

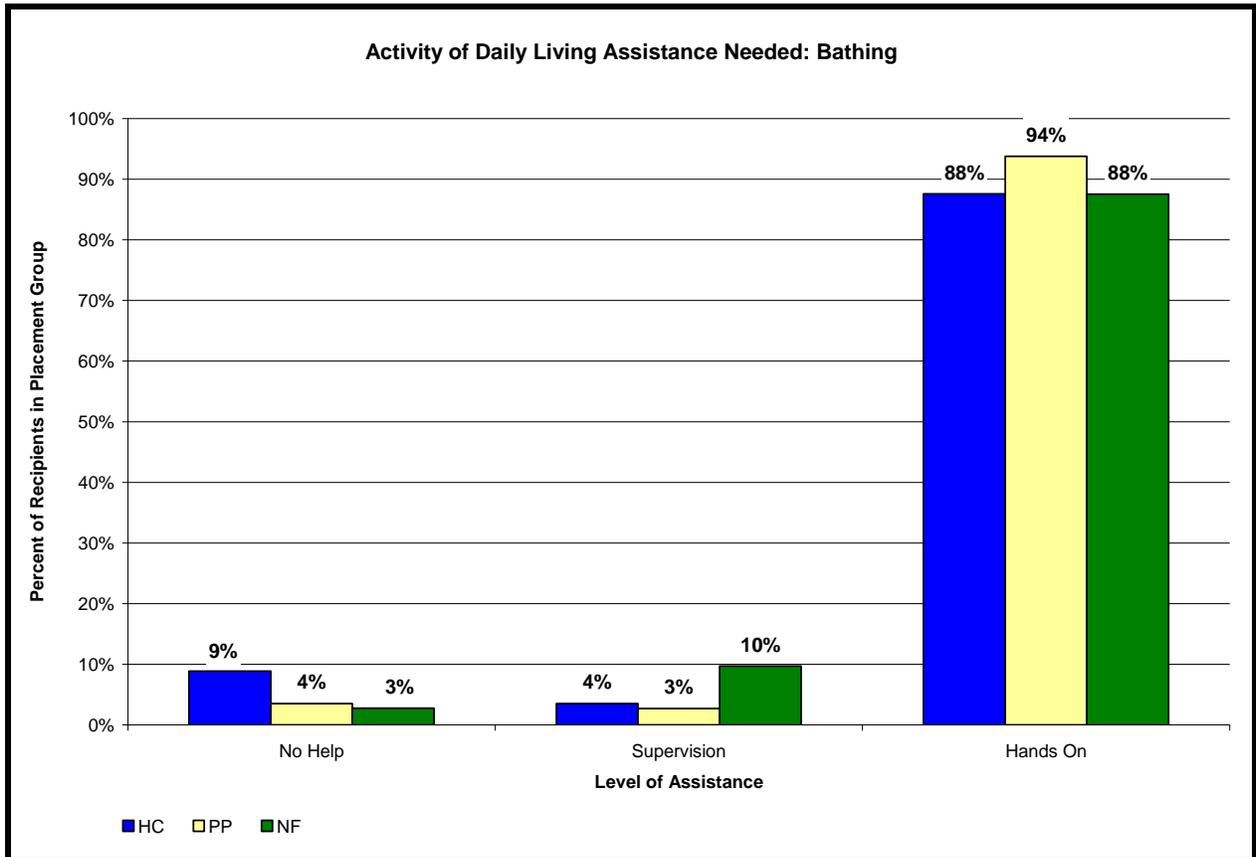


Figure 11. Activity of Daily Living Assistance Needed: Bathing

The overwhelming majority of consumers in all 3 groups required *hands on* assistance with bathing. The Home Care group had 9% that required *no assistance* with bathing, while the Nursing Facility group had 10% that required *supervision*. The Home Care group had roughly equal proportions of consumers who required either *no help* or *supervision*.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.12.2. Dressing

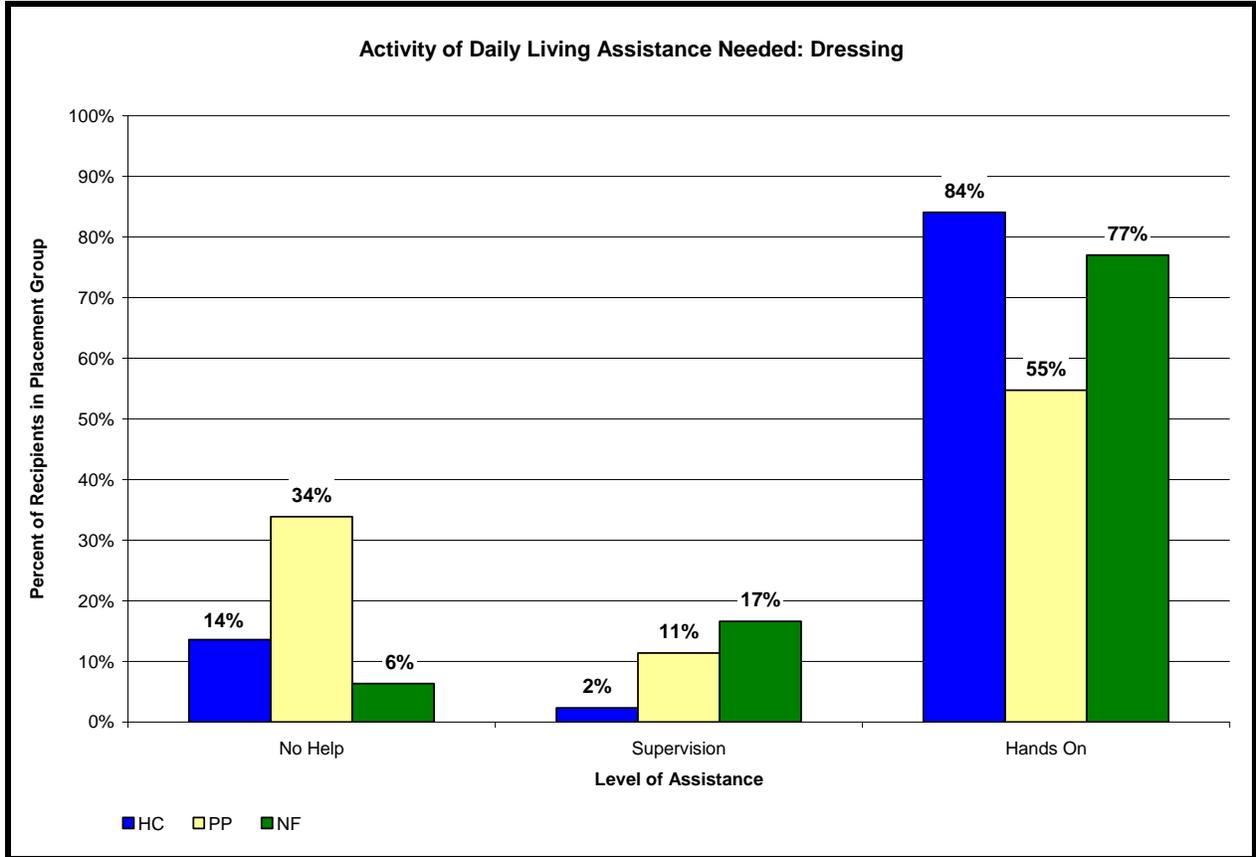


Figure 12. Activity of Daily Living Assistance Needed: Dressing

The majority of consumers in all 3 groups required *hands on* assistance with dressing. The next most common assistance level was *no assistance* for the Home Care and PASSPORT groups, but was *supervision* for the Nursing Facility group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.12.3. Toileting

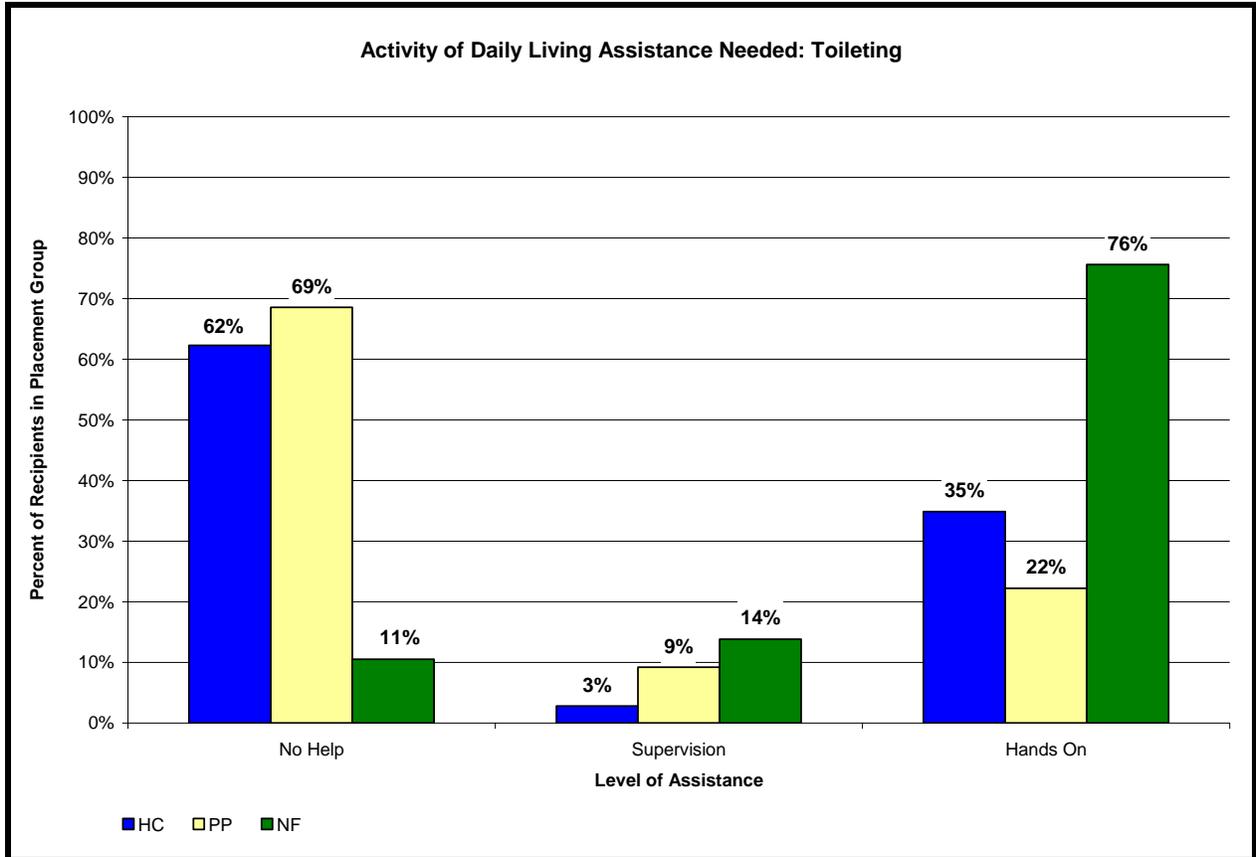


Figure 13. Activity of Daily Living Assistance Needed: Toileting

The majority of the Home Care and PASSPORT group needed *no assistance* toileting, but the majority of the Nursing Facility group needed *hands on* assistance.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.12.4. Eating

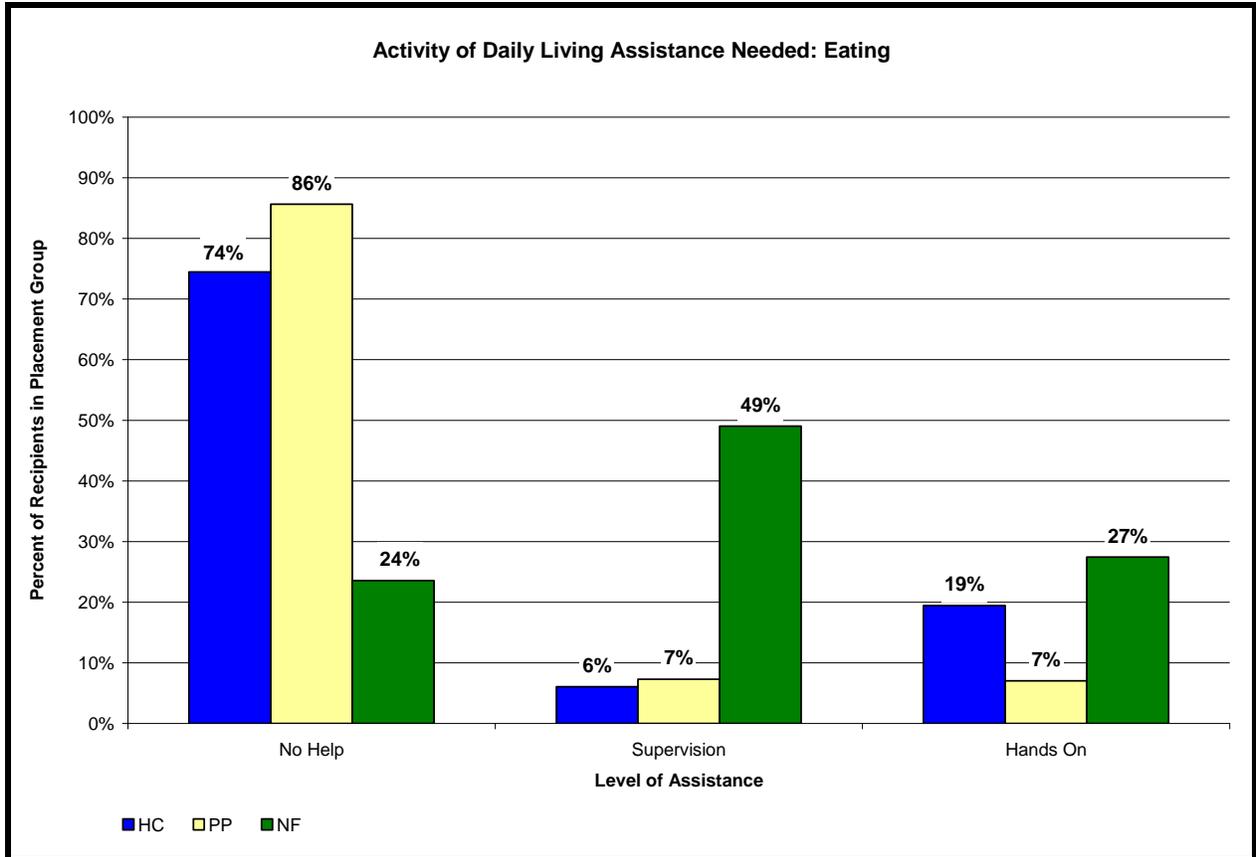


Figure 14. Activity of Daily Living Assistance Needed: Eating

The majority of the Home Care and PASSPORT groups needed *no assistance* eating, but only 24% of the Nursing Facility group needed *no assistance*. Most of the Nursing Facility group needed at least *supervision*.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.12.5. Grooming

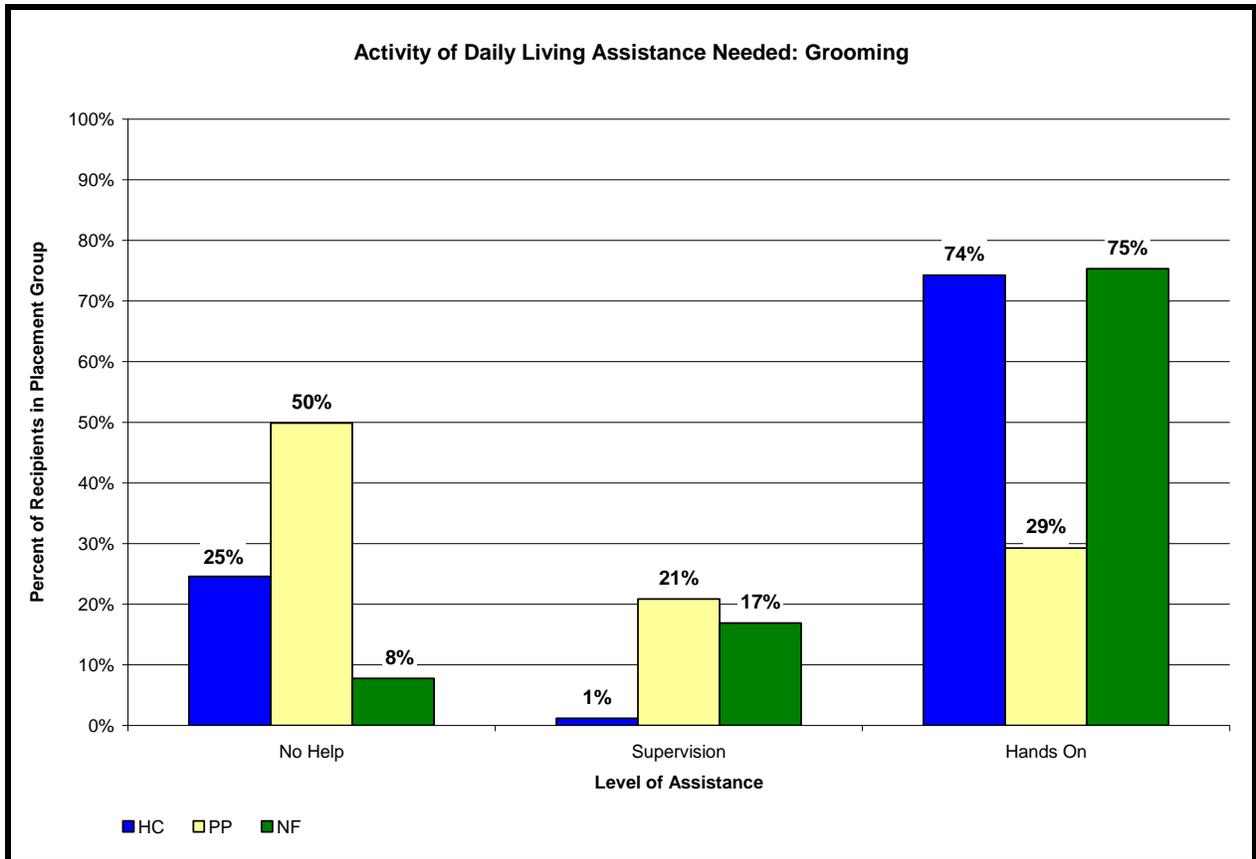


Figure 15. Activity of Daily Living Assistance Needed: Grooming

Roughly 75% of the Home Care and Nursing Facility groups needed *hands on* assistance with grooming, but only 29% of the PASSPORT group needed such intensive assistance. Half of the PASSPORT group did not need any help, as compared to 25% of the Home Care group and 8% of the Nursing Facility group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.12.6. Mobility

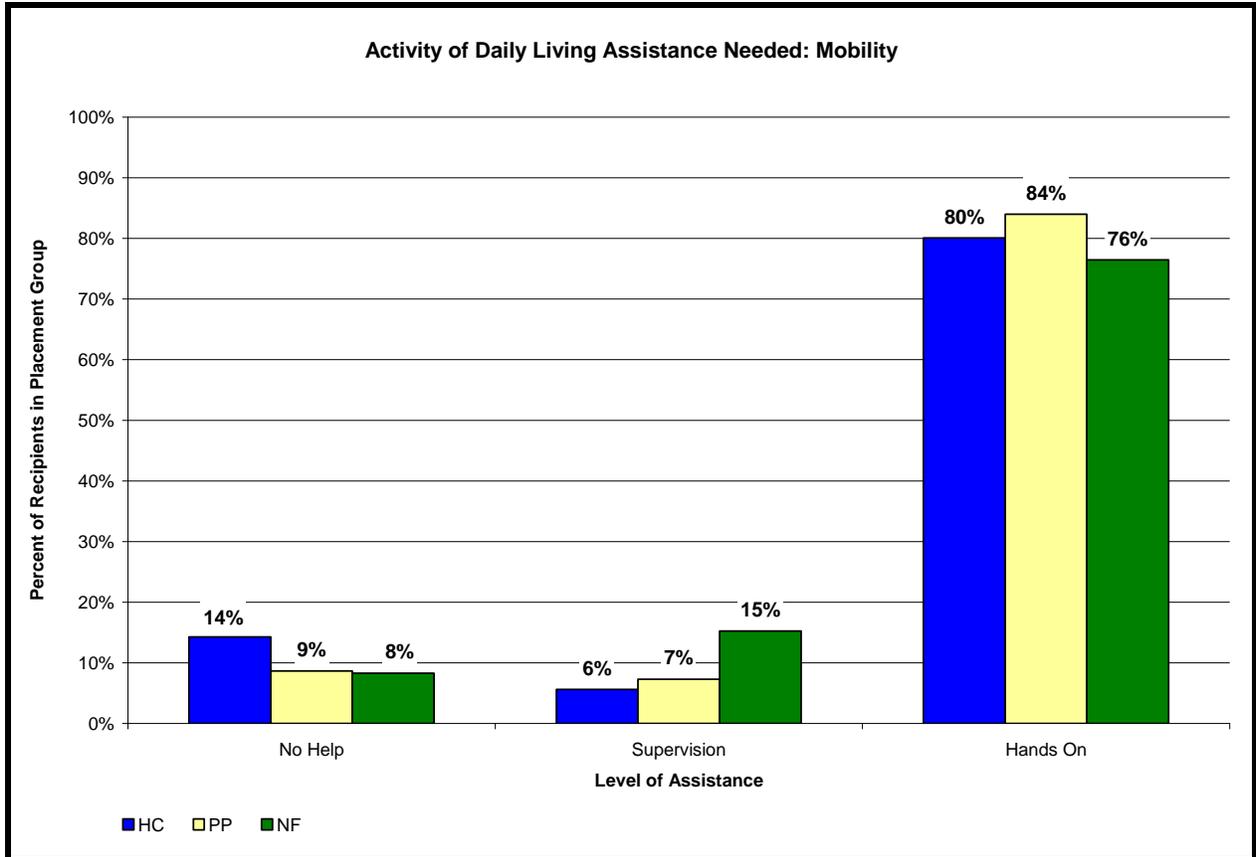


Figure 16. Activity of Daily Living Assistance Needed: Mobility

Over 76% of all 3 groups needed *hands on* assistance with mobility. Fifteen percent of the Nursing Facility group needed *supervision* in this activity, as compared to 6% of the Home Care group and 7% of the PASSPORT group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.13. Number of ADL Impairments

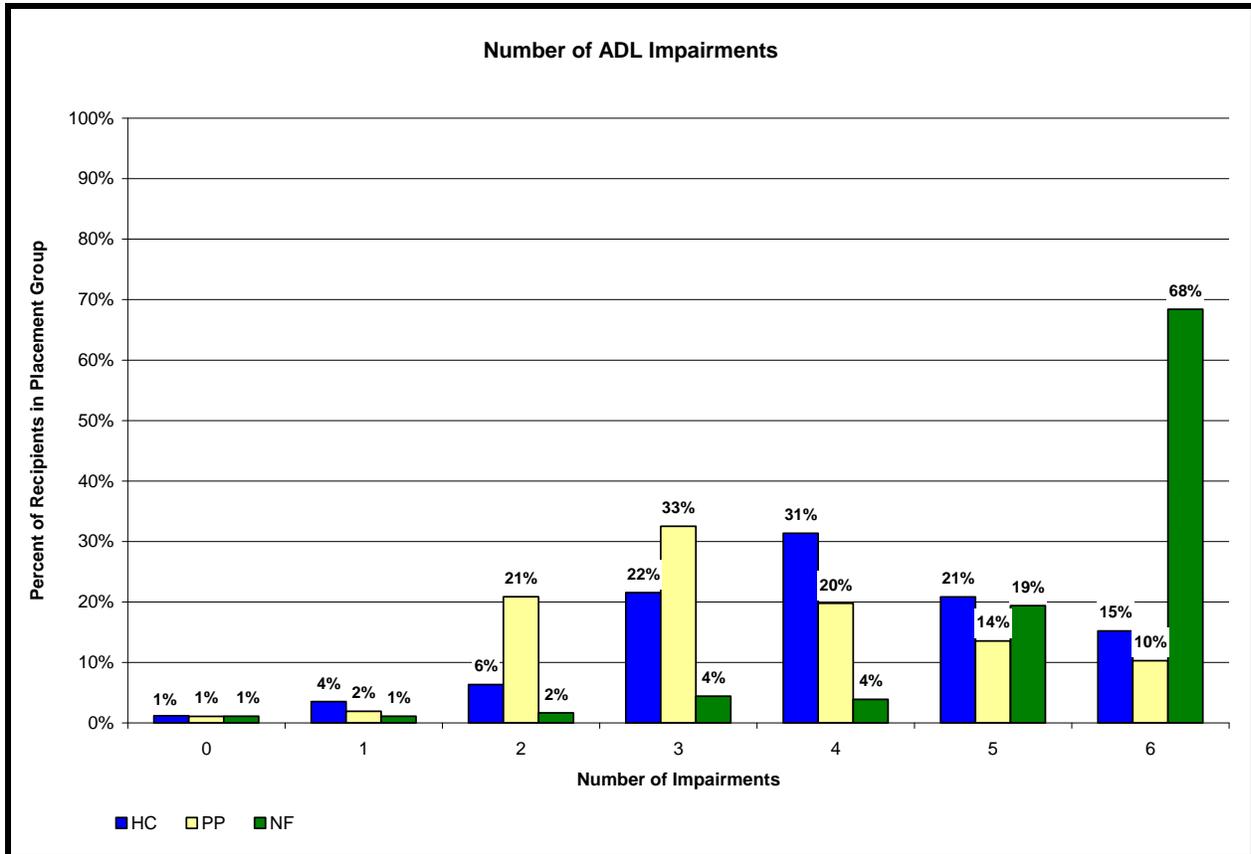


Figure 17. Number of ADL Impairments

The Home Care group had a mean of 4.02 impairments per consumer, with a median of 4. The PASSPORT group was slightly lower with a mean of 3.5 and a median of 3. The Nursing Facility had the highest number of ADL impairments overall with a mean of 5.4 and a median of 6.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.14. IADL assistance

5.14.1. Community Access

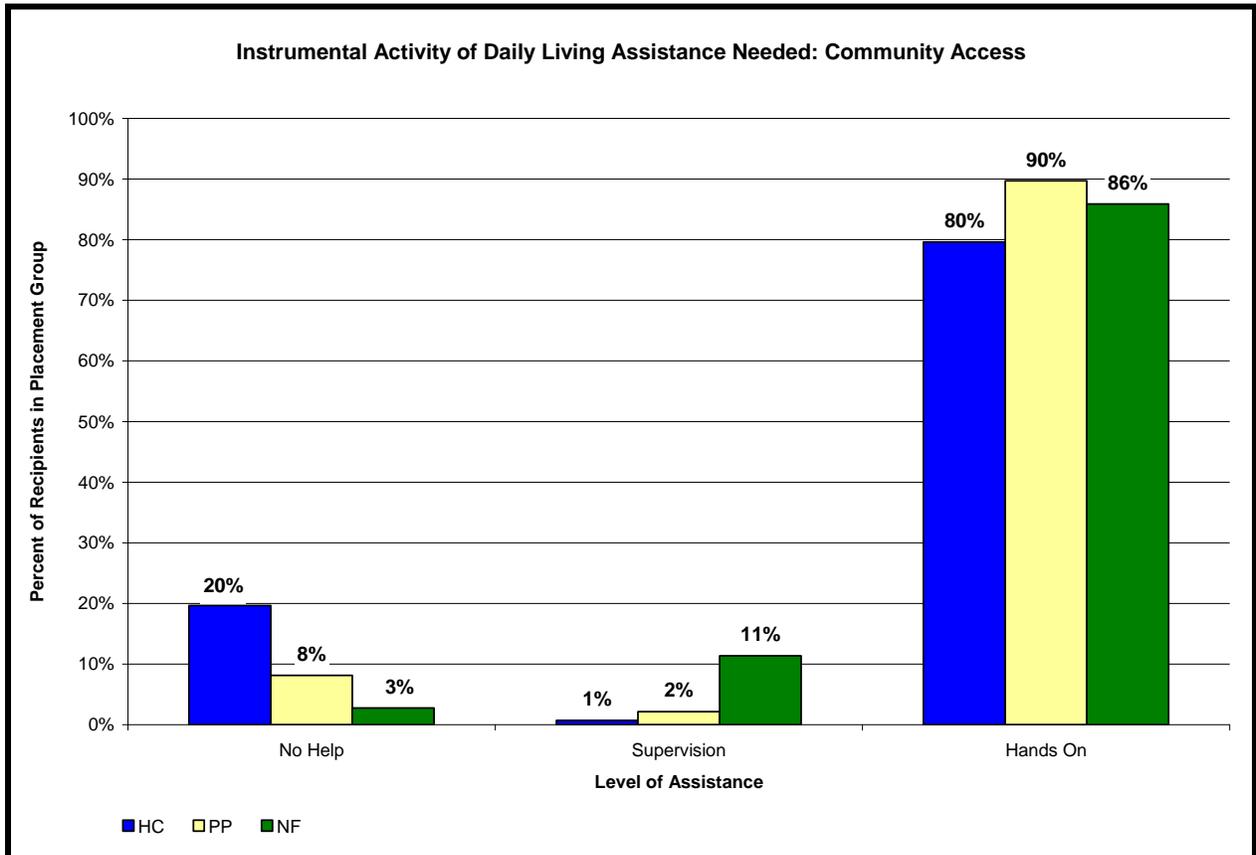


Figure 18. Instrumental Activity of Daily Living Assistance Needed: Community Access

The overwhelming majority of all 3 groups needed *hands on* assistance for community access. Twenty percent of the Home Care group needed *no assistance* with this activity, as compared to 8% of the PASSPORT group and 3% of the Nursing Facility group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.14.2. Environment Management

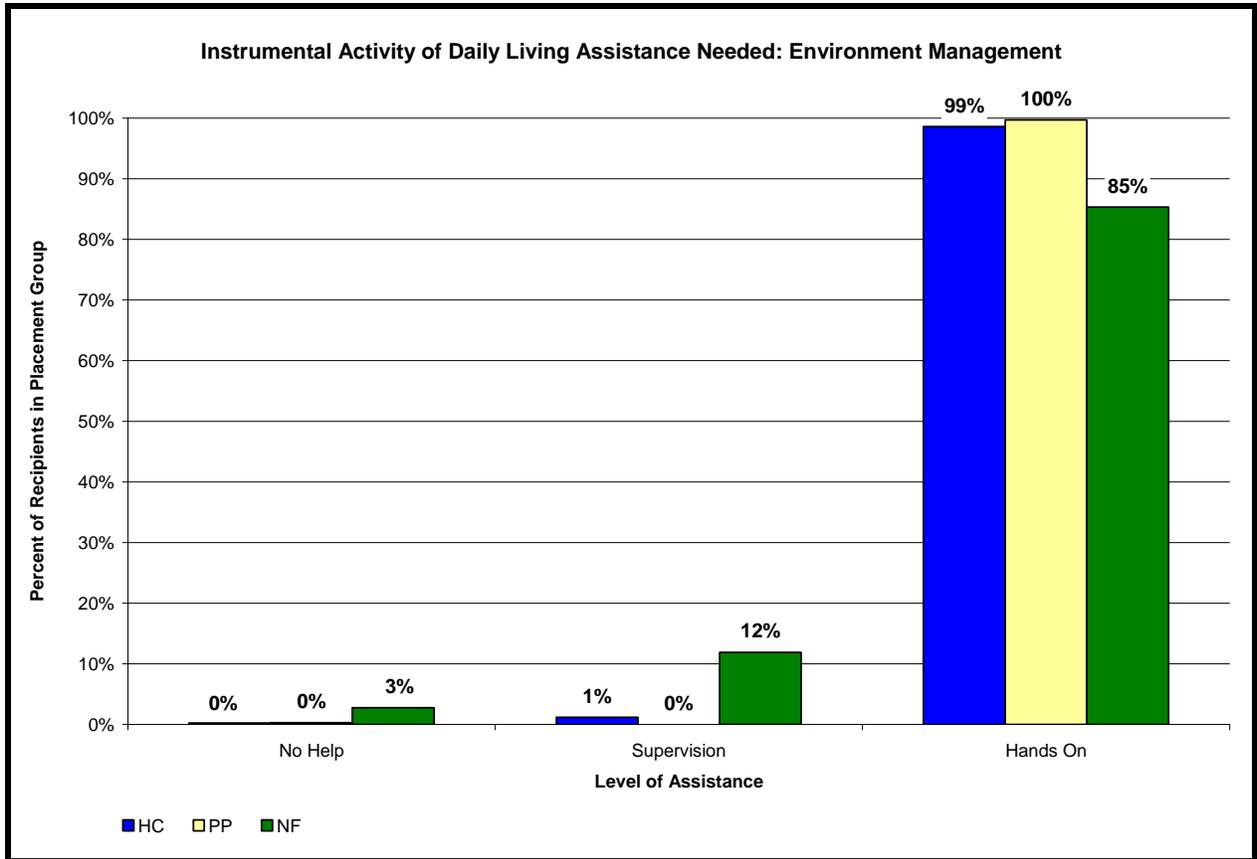


Figure 19. Instrumental Activity of Daily Living Assistance Needed: Environment Management

Nearly all of the waiver program groups needed *hands on* assistance with environment management, as compared to 85% of the Nursing Facility group. Only 3% of the Nursing Facility group needed *no assistance* with this activity.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.14.3. Shopping

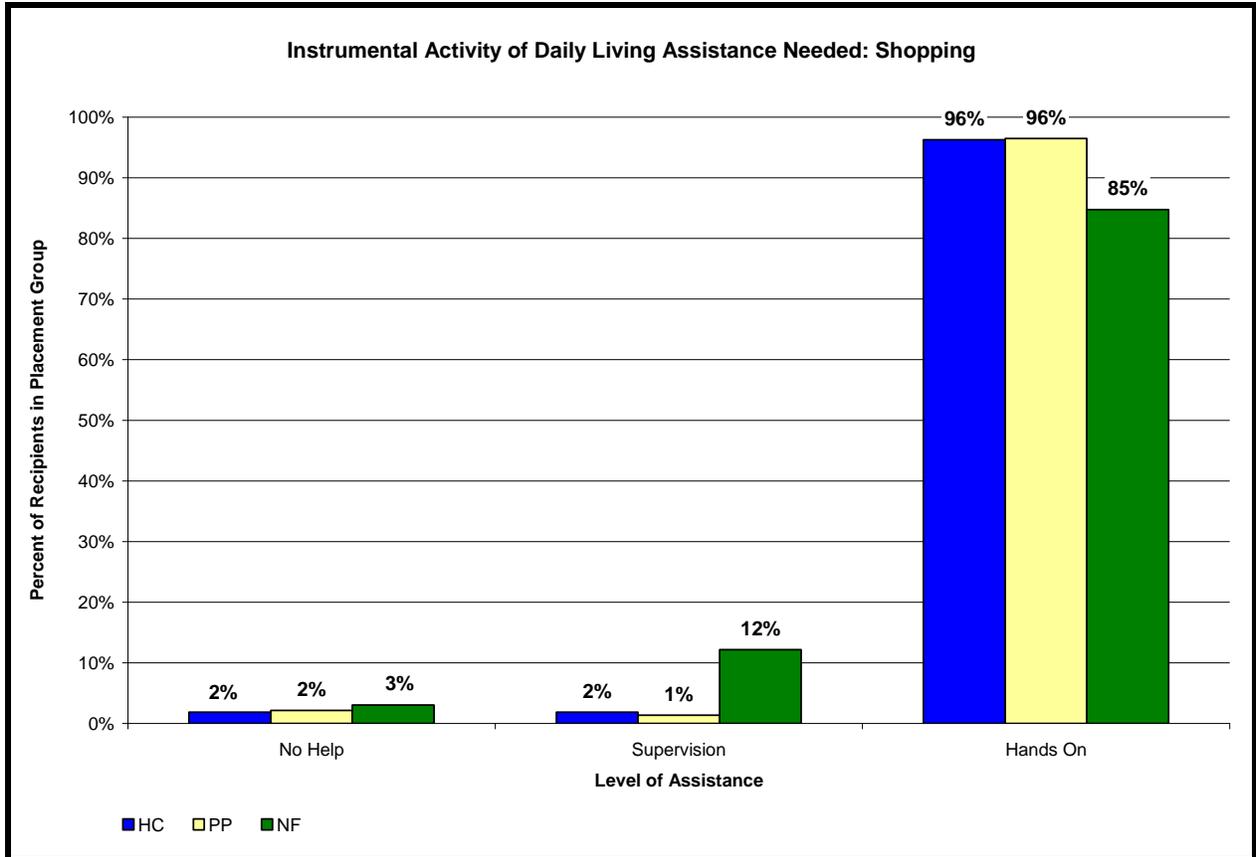


Figure 20. Instrumental Activity of Daily Living Assistance Needed: Shopping

Ninety-six percent of both the waiver program groups needed *hands on* assistance with shopping, as well as 85% of the Nursing Facility group. Twelve percent of the Nursing Facility group needed *supervision* for this activity, as compared to 2% of the Home Care group and 1% of the PASSPORT group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.14.4. Meal Preparation

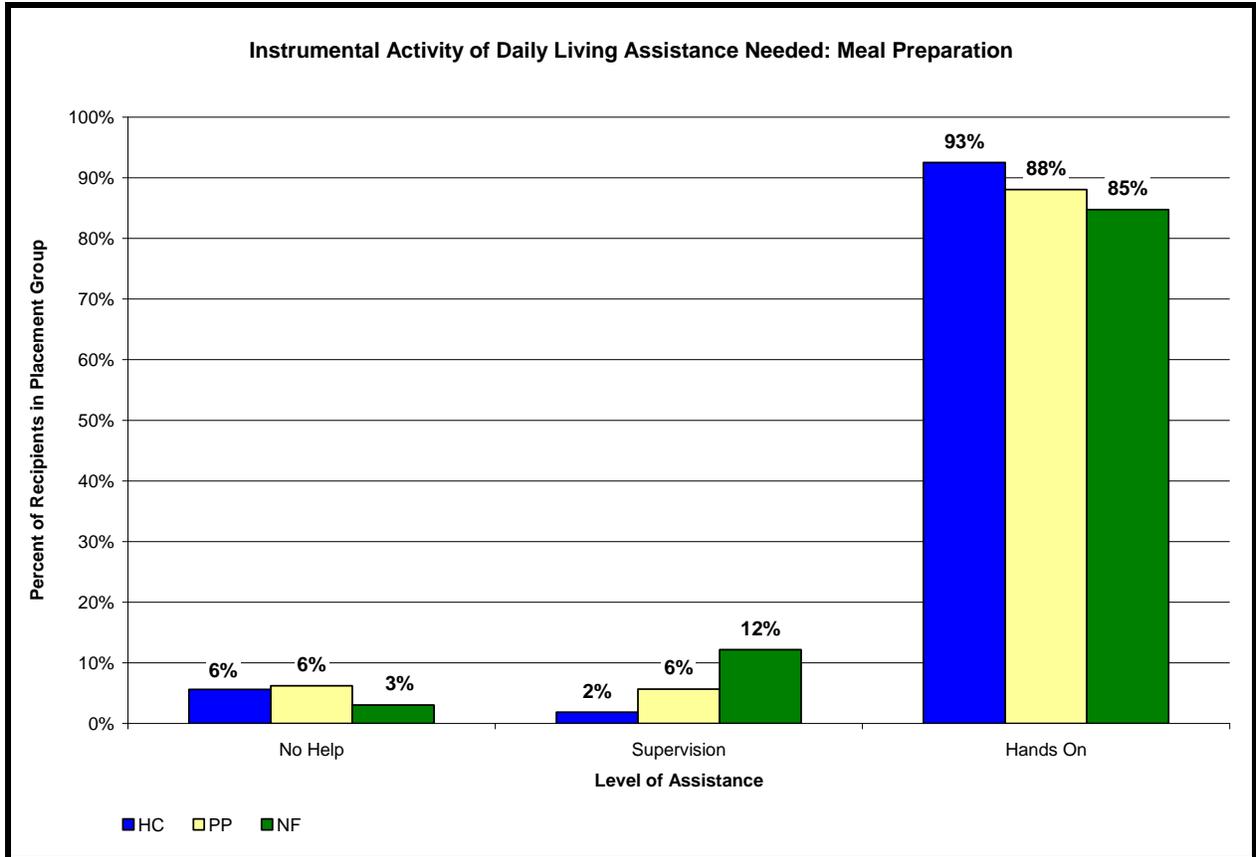


Figure 21. Instrumental Activity of Daily Living Assistance Needed: Meal Preparation

Over 85% of all 3 groups needed *hands on* assistance with meal preparation. Twelve percent of the Nursing Facility group needed *supervision* of this activity, as compared to 6% of the PASSPORT group and 2% of the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.14.5. Laundry

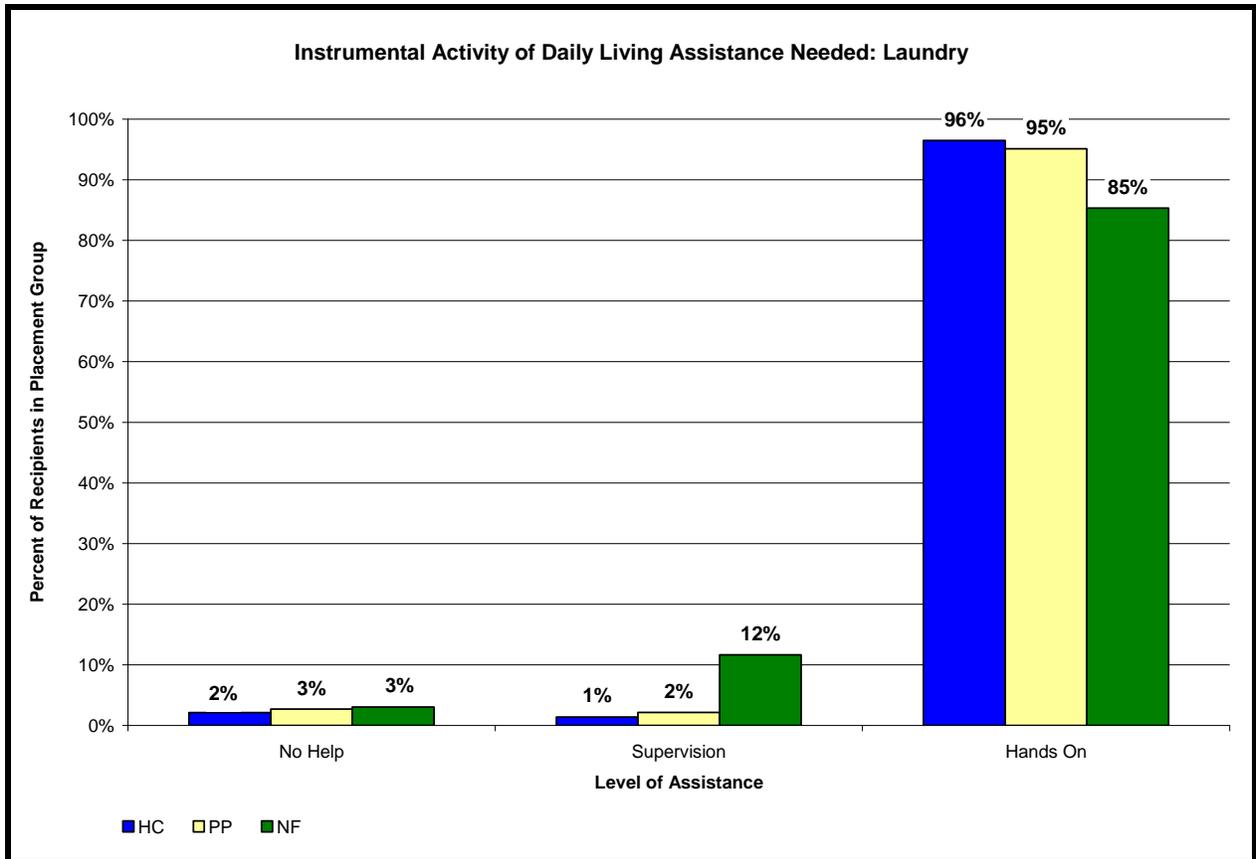


Figure 22. Instrumental Activity of Daily Living Assistance Needed: Laundry

Over 85% of all 3 groups needed *hands on* assistance with laundry. Twelve percent of the Nursing Facility group needed *supervision* of this activity, as compared to 2% of the PASSPORT group and % of the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening/ Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.15. Number of IADL Impairments

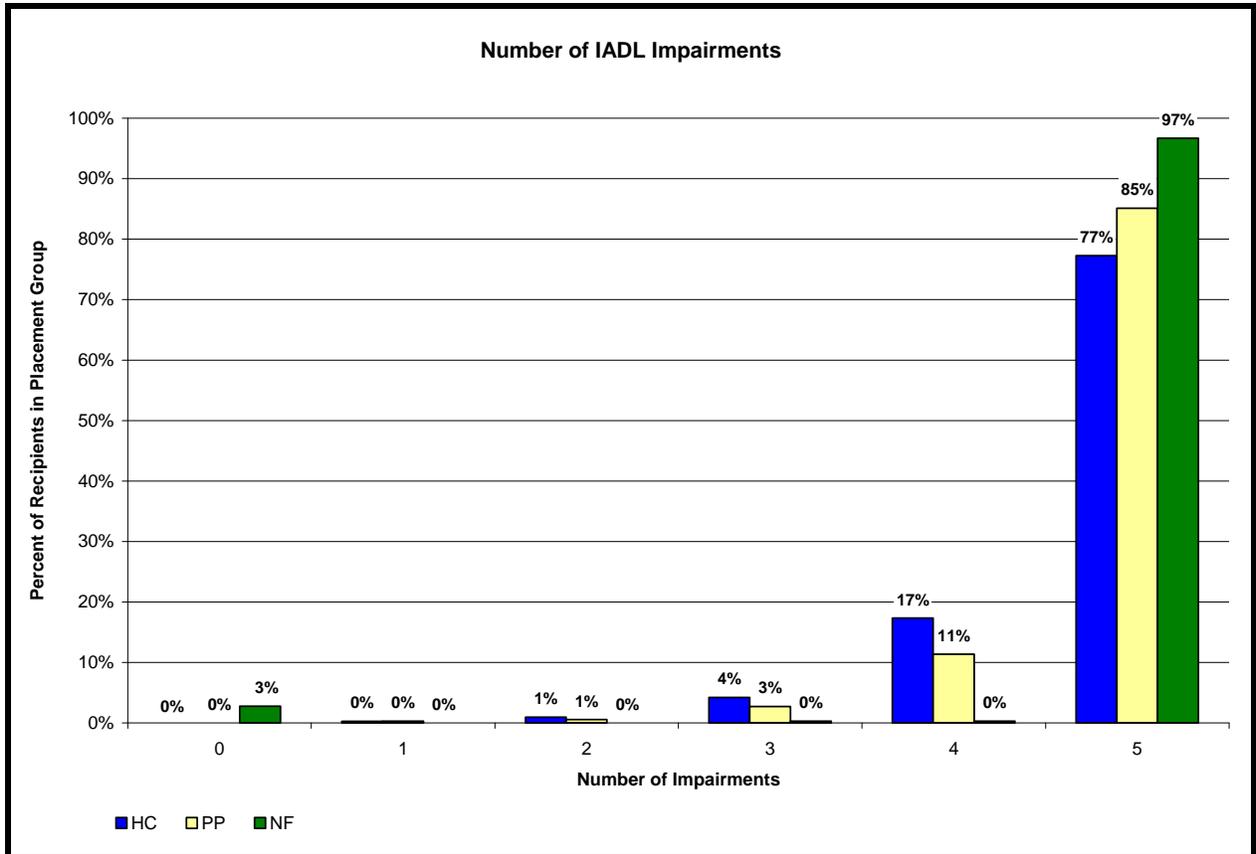


Figure 23. Number of IADL Impairments

The Home Care group had the lowest number of IADL impairments overall with a mean of 4.7. PASSPORT was the next highest with a mean of 4.8, and the Nursing Facility group was the highest at 4.85. All 3 groups had a median of 5 impairments.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.16. Medication Administration

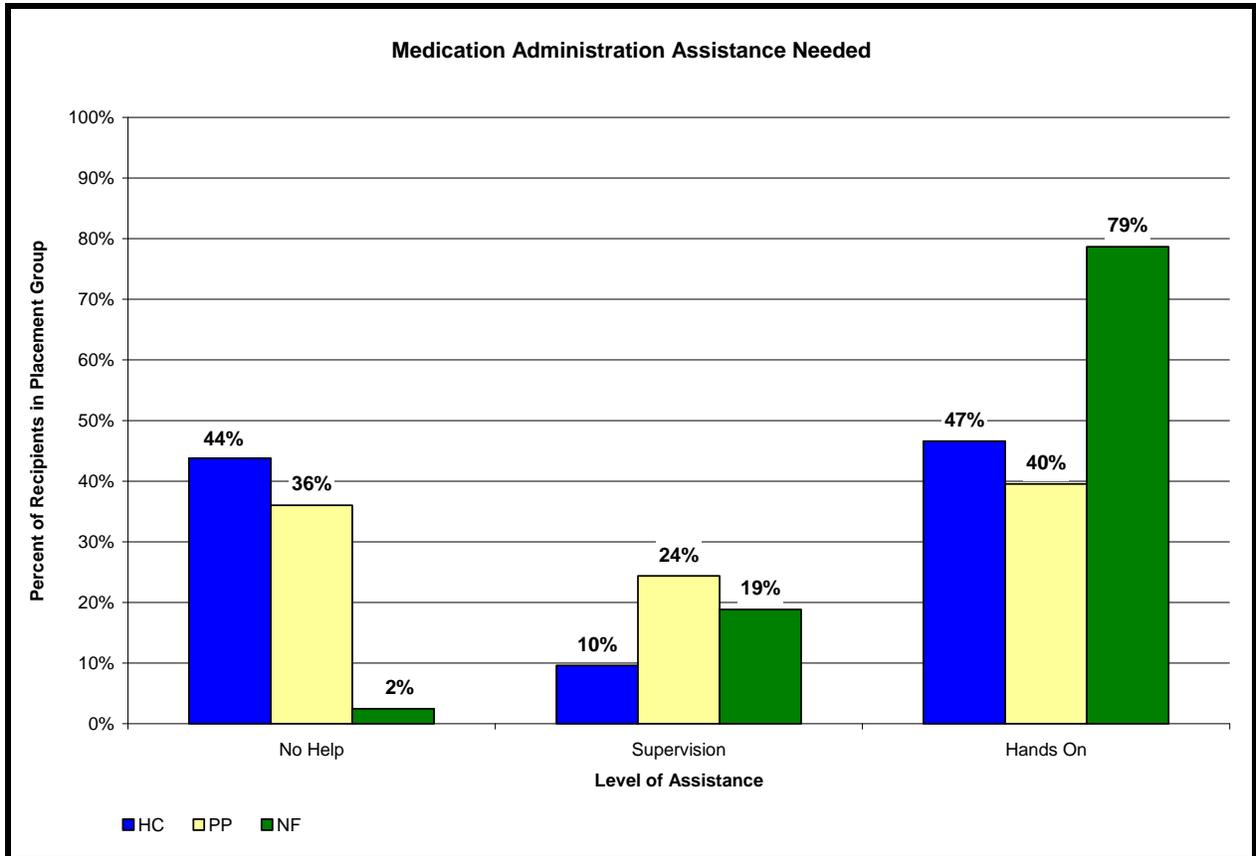


Figure 24. Medication Administration Assistance Needed

The majority of the Nursing Facility group needed *hands on* assistance with medication administration, but the waiver program groups were more evenly distributed between needing *hands on* assistance and not needing any help at all.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.17. Incontinence

5.17.1. Urinary

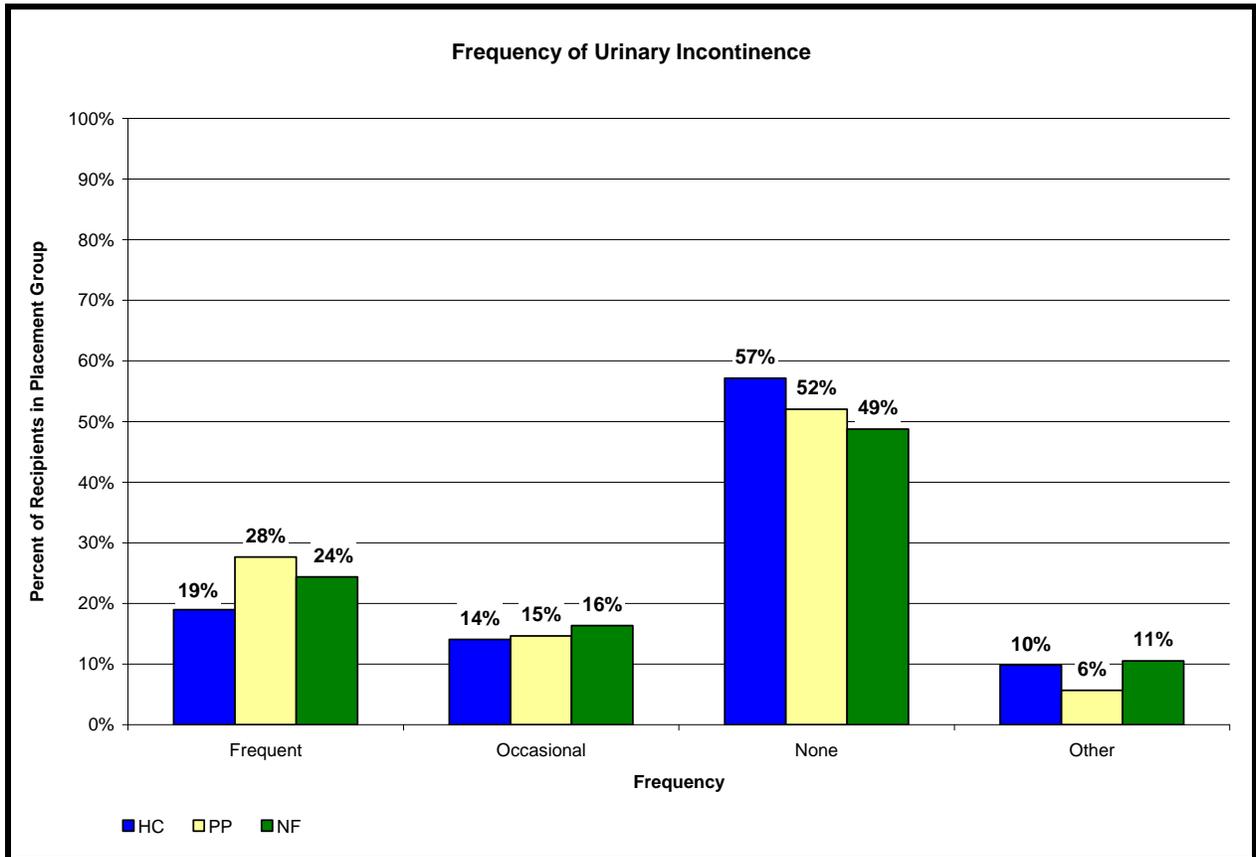


Figure 25. Frequency of Urinary Incontinence

Roughly half of all 3 groups did not experience urinary incontinence. The prevalence of frequent incontinence was also similar across the groups, occurring in 28% of the PASSPORT group, 19% of the Home Care group, and 24% of the Nursing Facility group. Consumers in the Other category generally had a urinary catheter.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.17.2. Fecal

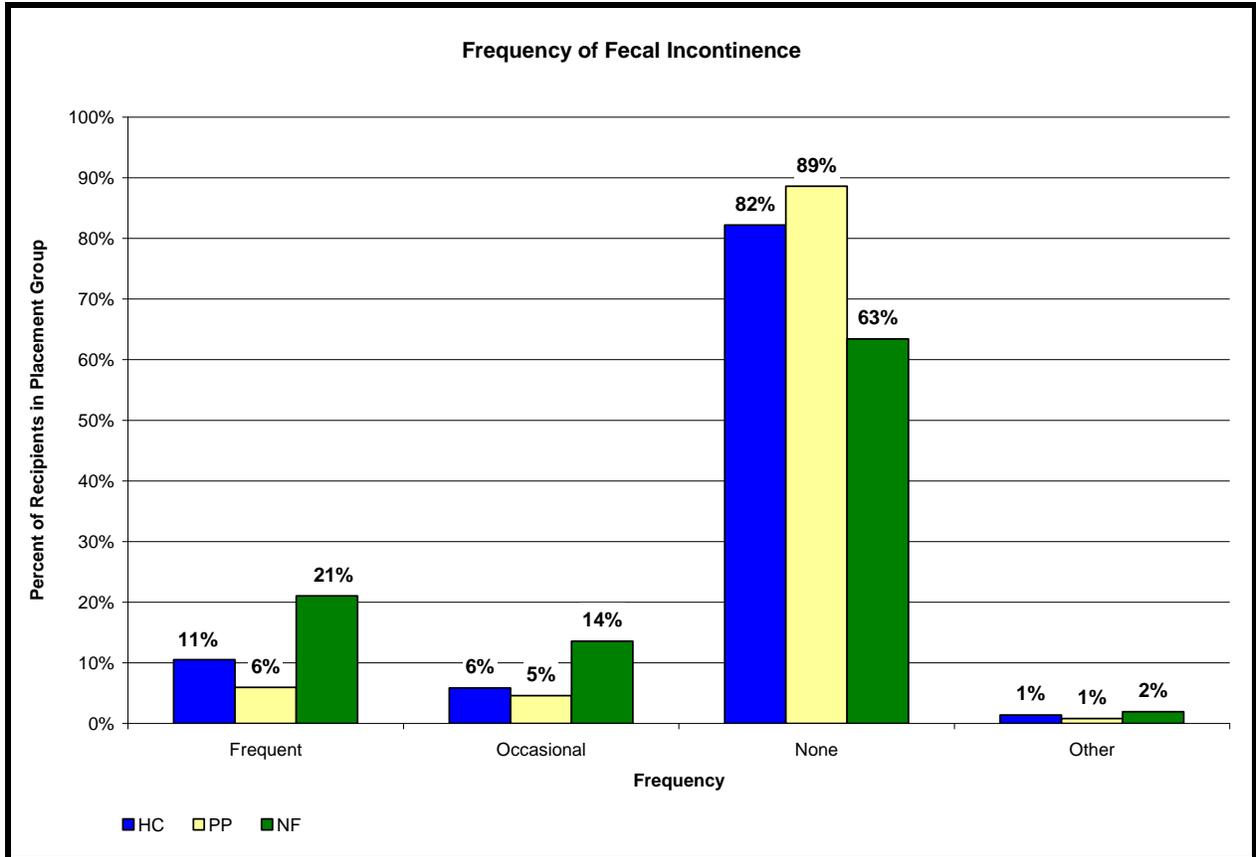


Figure 26. Frequency of Fecal Incontinence

Over 80% of the waiver program groups did not have fecal incontinence, as compared to 63% of the Nursing Facility group. The Nursing Facility group had a higher prevalence of frequent incontinence with 21% as compared to 11% in the Home Care group and 6% of the PASSPORT group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.18. Prevalence of Chronic Disability

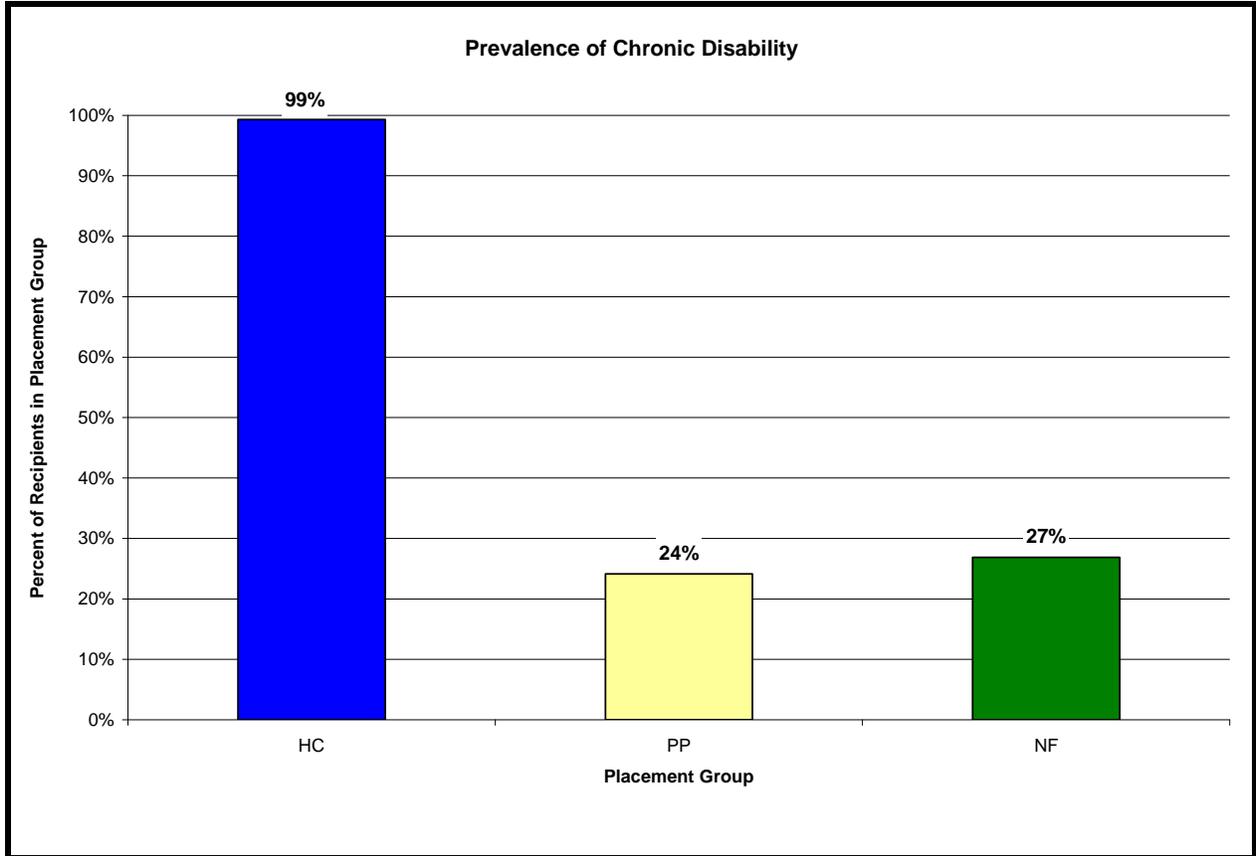


Figure 27. Prevalence of Chronic Disability

Nearly the entire Home Care group had severe, chronic disability conditions, compared to 24% in the PASSPORT group and 27% in the Nursing Facility group. Of those who did have a chronic disability, the condition was almost always expected to continue indefinitely (98% Home Care, 93% PASSPORT, 95% Nursing Facility).

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.19. Chronic Disability in Childhood

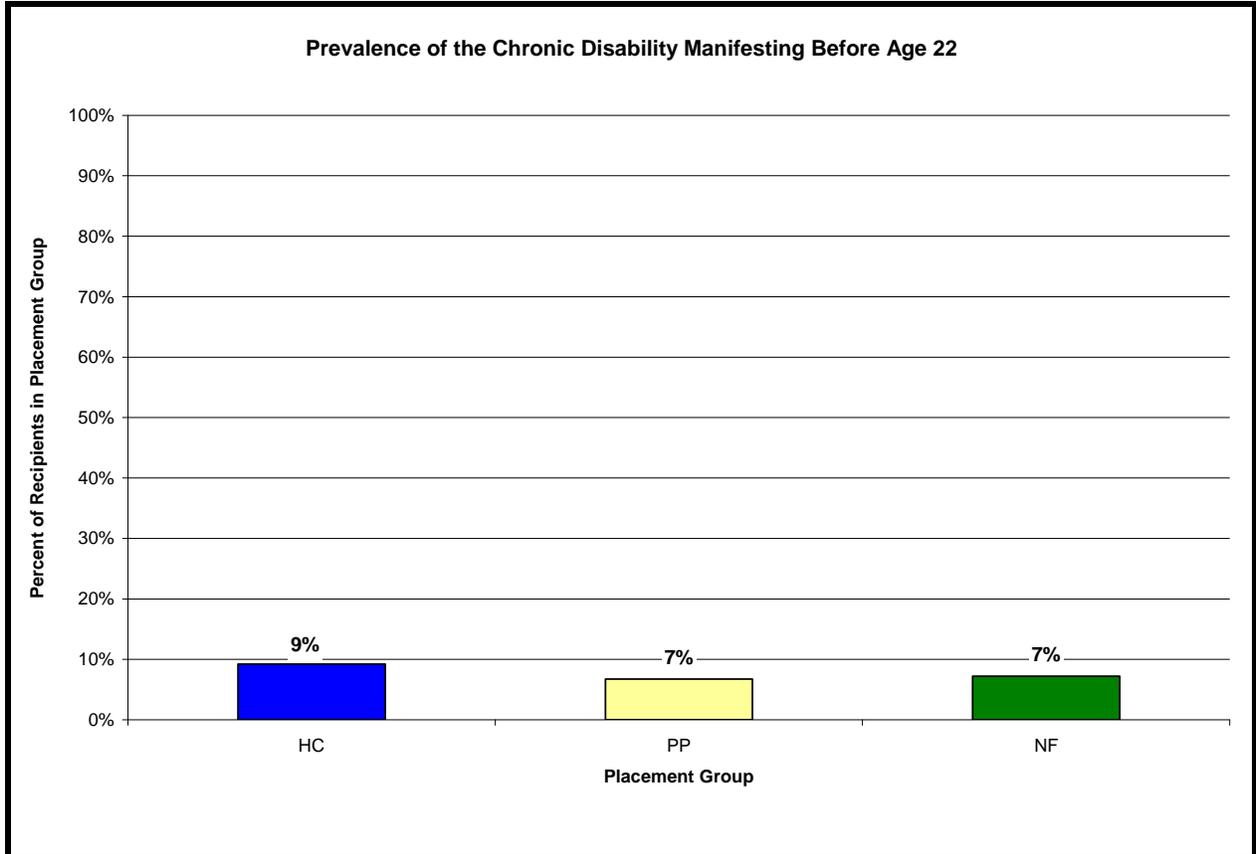


Figure 28. Prevalence of the Chronic Disability Manifesting Before Age 22

Of those who did have a chronic disability, it was not common for the condition to have manifested before age 22 in any of the study groups.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20. Chronic Disability Functional Limitations

5.20.1. Self Care

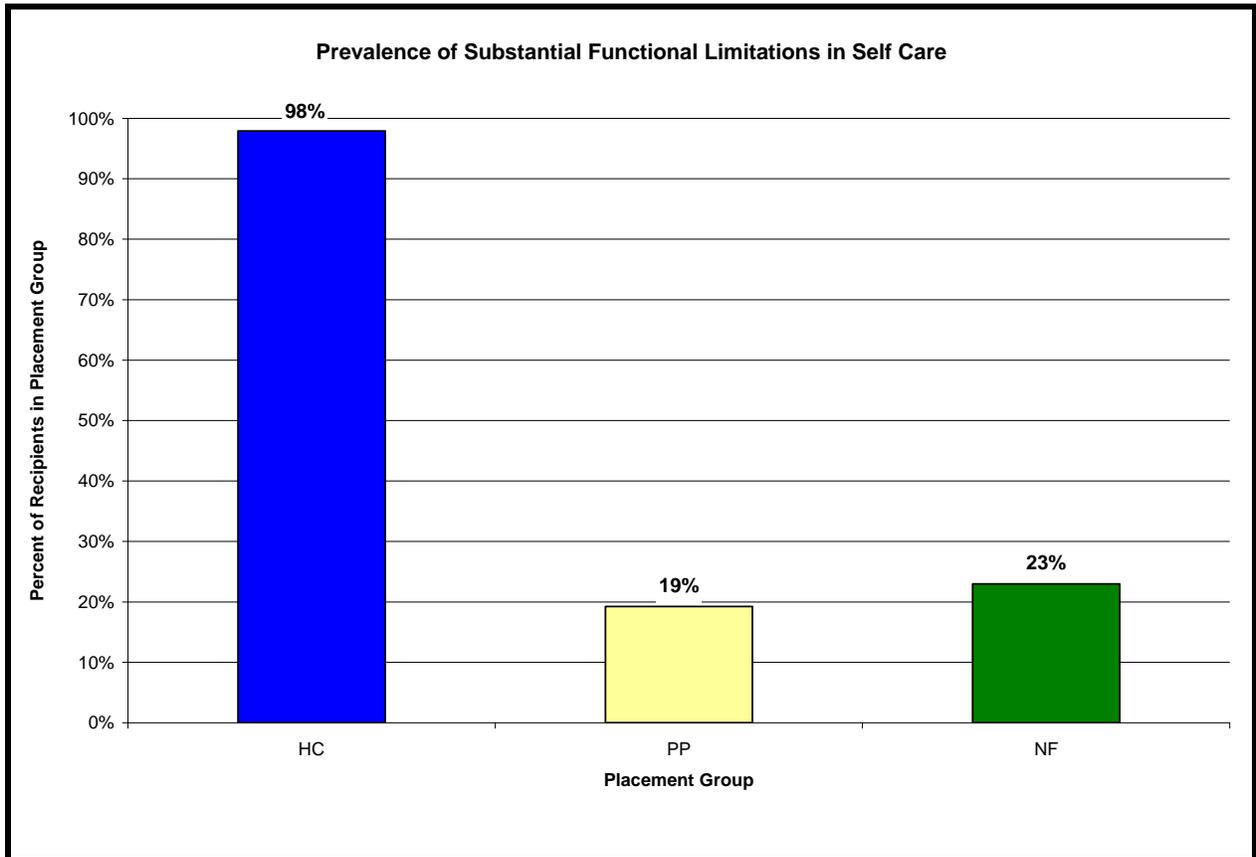


Figure 29. Prevalence of Substantial Functional Limitations in Self Care

Nearly all in the Home Care group experienced substantial functional limitation in self care due to their chronic disability. The proportion was much lower in the PASSPORT and Nursing Facility groups at 19% and 23%, respectively.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.2. Understanding

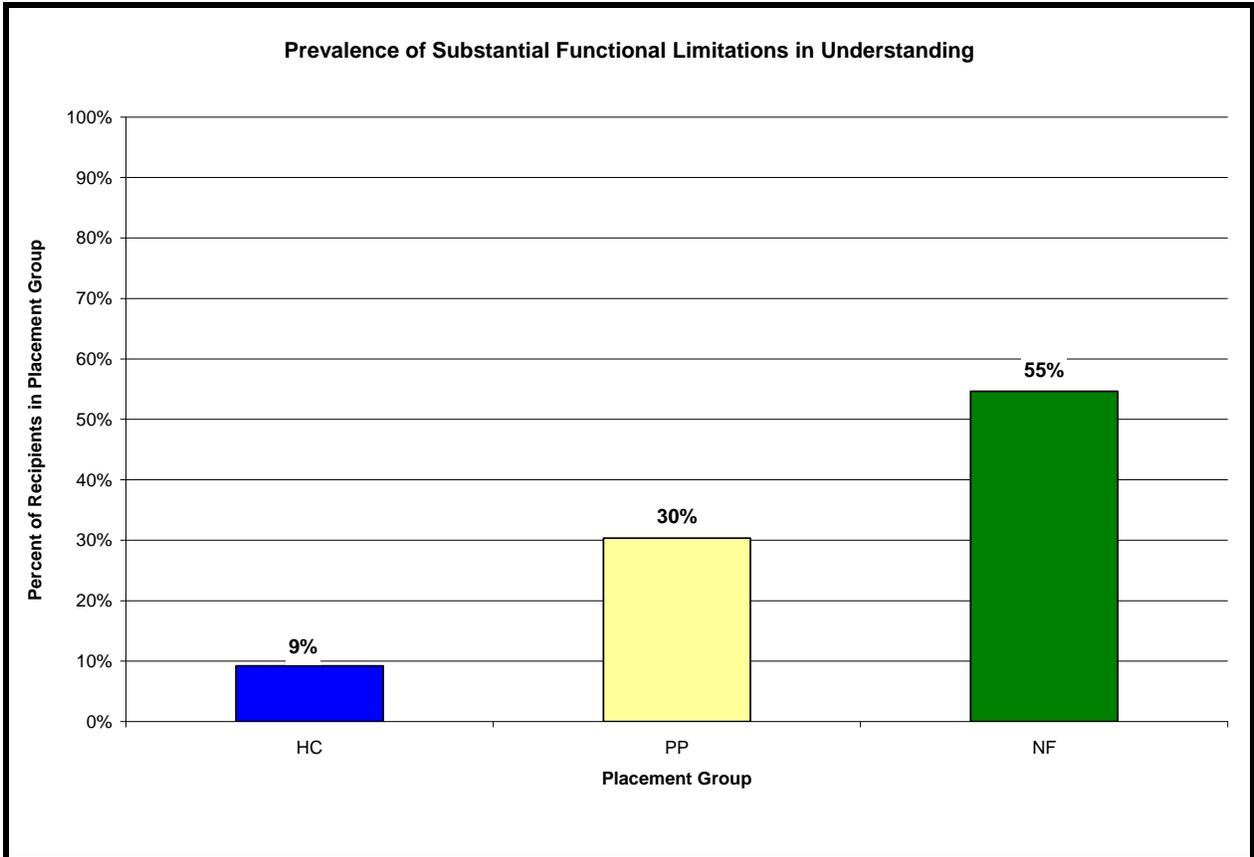


Figure 30. Prevalence of Substantial Functional Limitations in Understanding

Over half of the Nursing Facility group experienced substantial limitations in understanding due to their disability, as compared to 30% in the PASSPORT group and 9% in the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.3. Learning

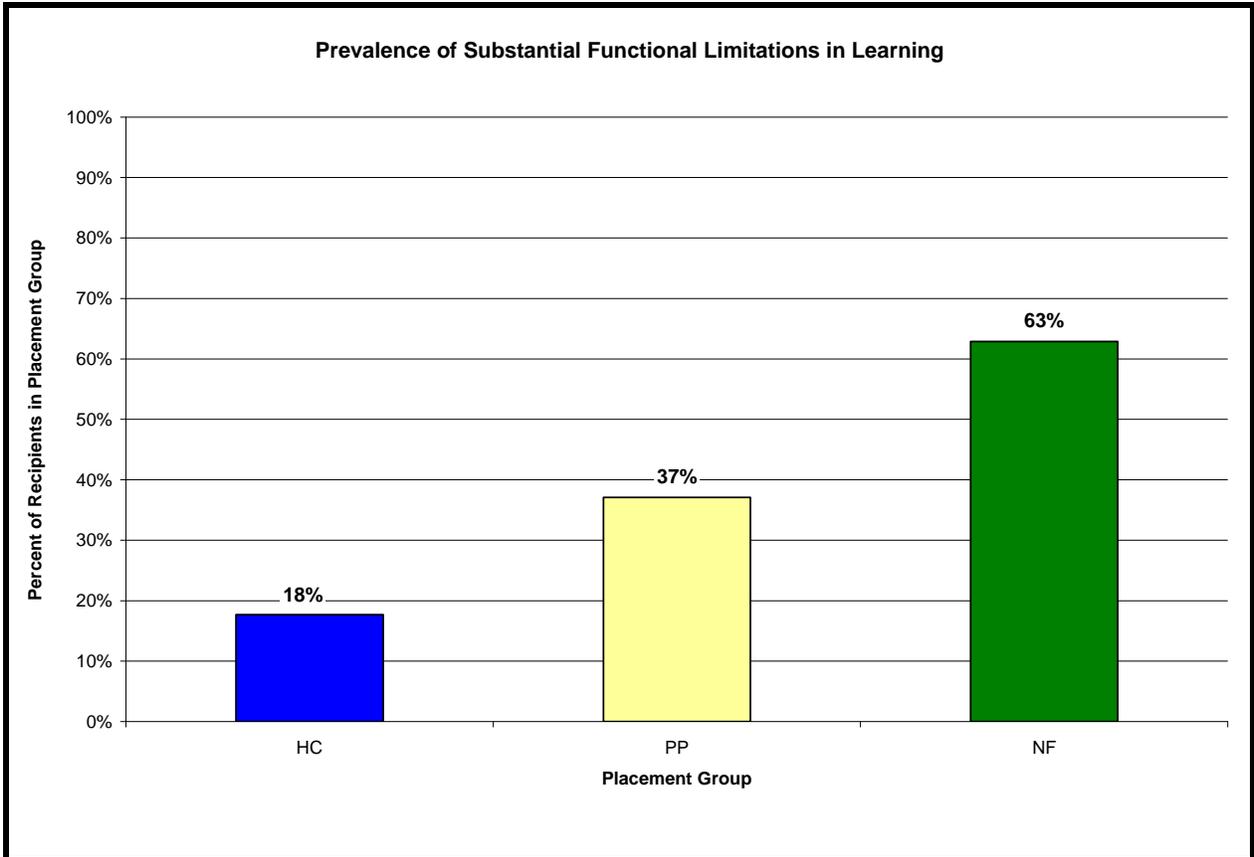


Figure 31. Prevalence of Substantial Functional Limitations in Learning

Sixty-three percent of the Nursing Facility group experienced substantial limitations in learning due to their disability, as compared to 37% of the PASSPORT group and 18% of the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.4. Mobility

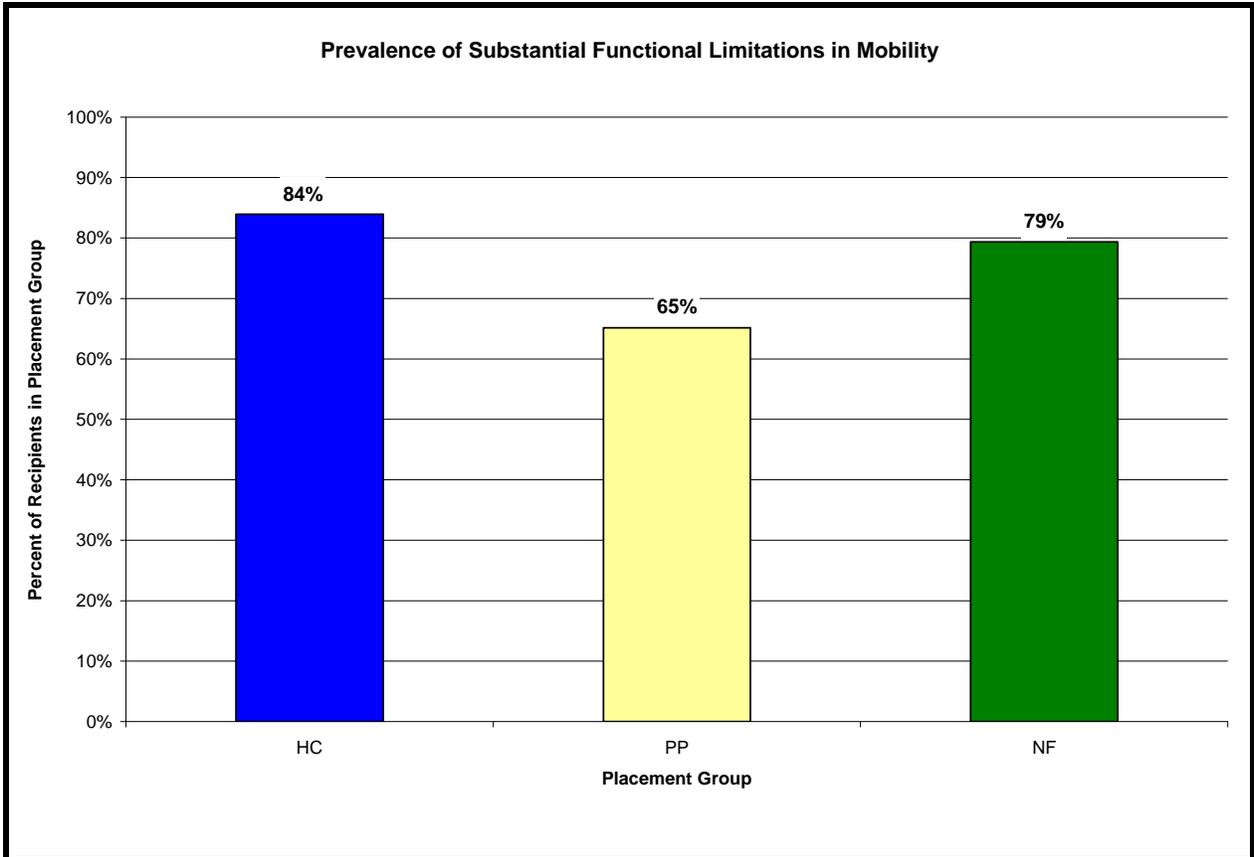


Figure 32. Prevalence of Substantial Functional Limitations in Mobility

The majority of consumers with a chronic disability in all 3 groups experienced substantial limitations in mobility.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.5. Self Direction

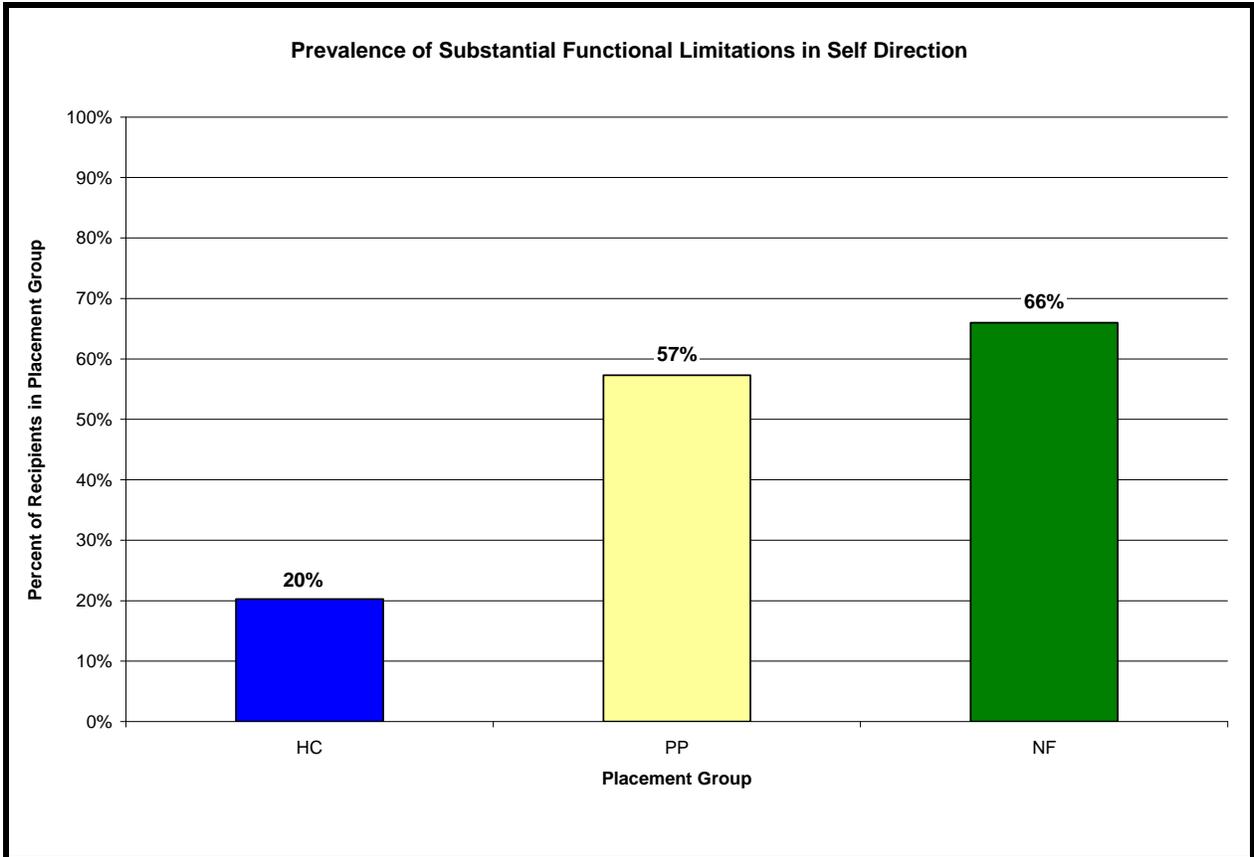


Figure 33. Prevalence of Substantial Functional Limitations in Self Direction

The majority of consumers with chronic disabilities experienced functional limitations in self direction in both the Nursing Facility and PASSPORT groups. Only 20% of the Home Care group experienced similar limitations.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.6. Capacity for Independent Living

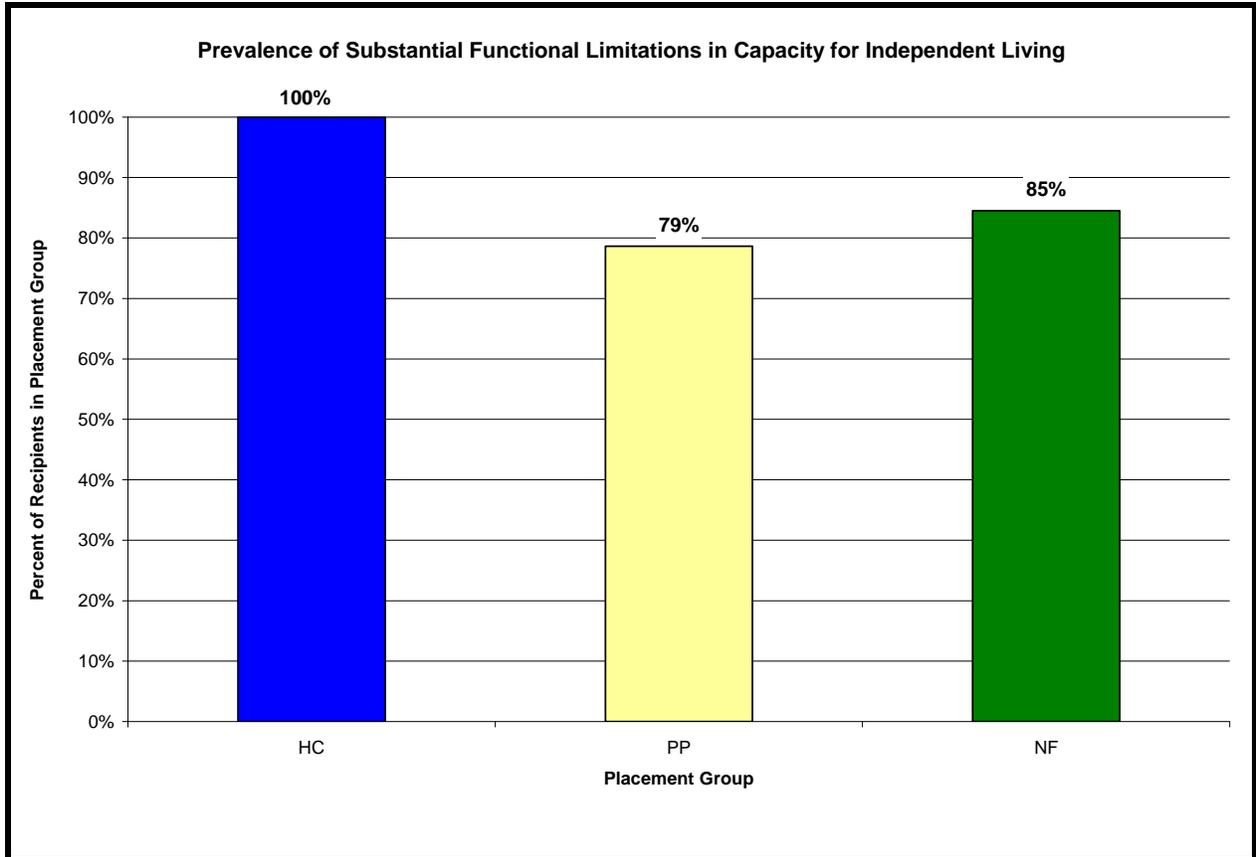


Figure 34. Prevalence of Substantial Functional Limitations in Capacity for Independent Living

The overwhelming majority of consumers in all 3 groups had functional limitations in their capacity for independent living due to their chronic disability.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.7. Communication

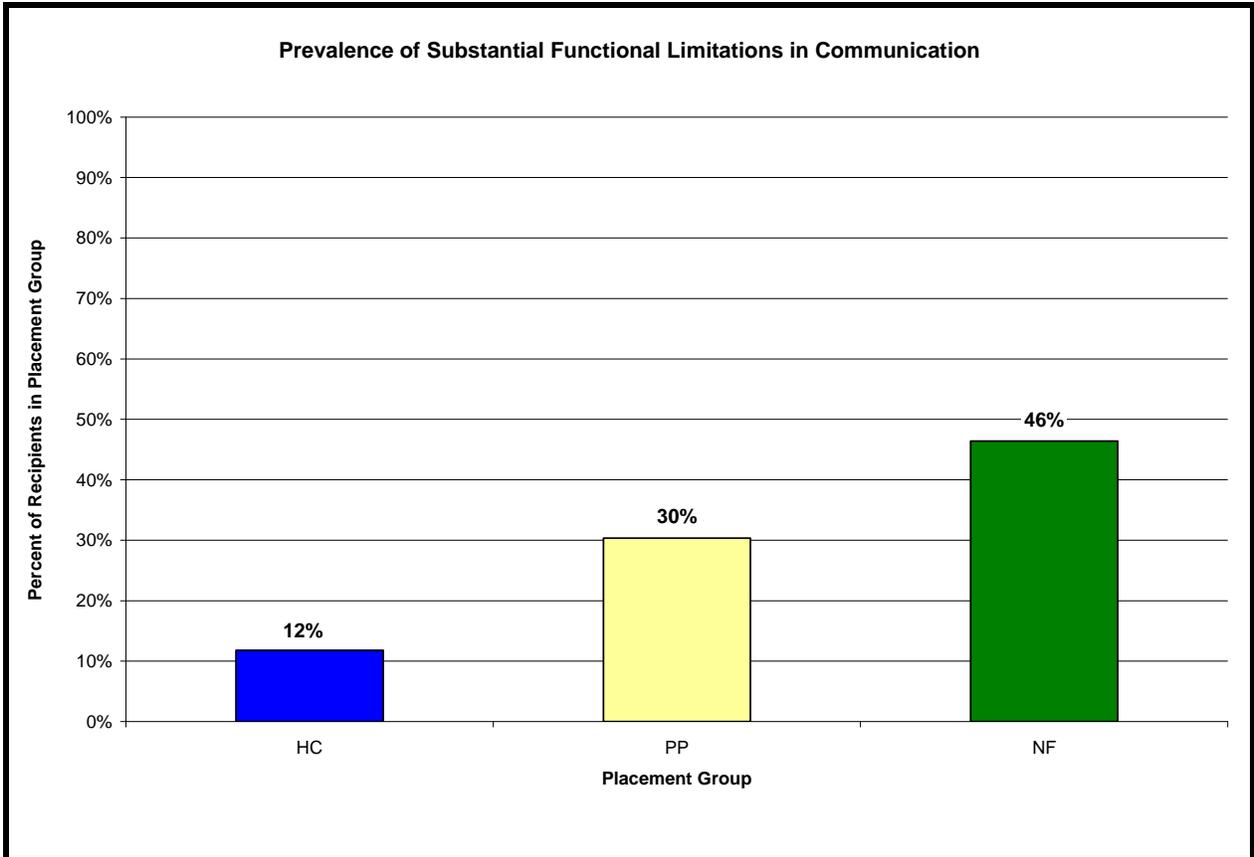


Figure 35. Prevalence of Substantial Functional Limitations in Communication

Forty-six percent of the Nursing Facility group had substantial limitations in communication due to their chronic disability, as compared to 30% in the PASSPORT group and 12% of the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.20.8. Economic Self-Sufficiency

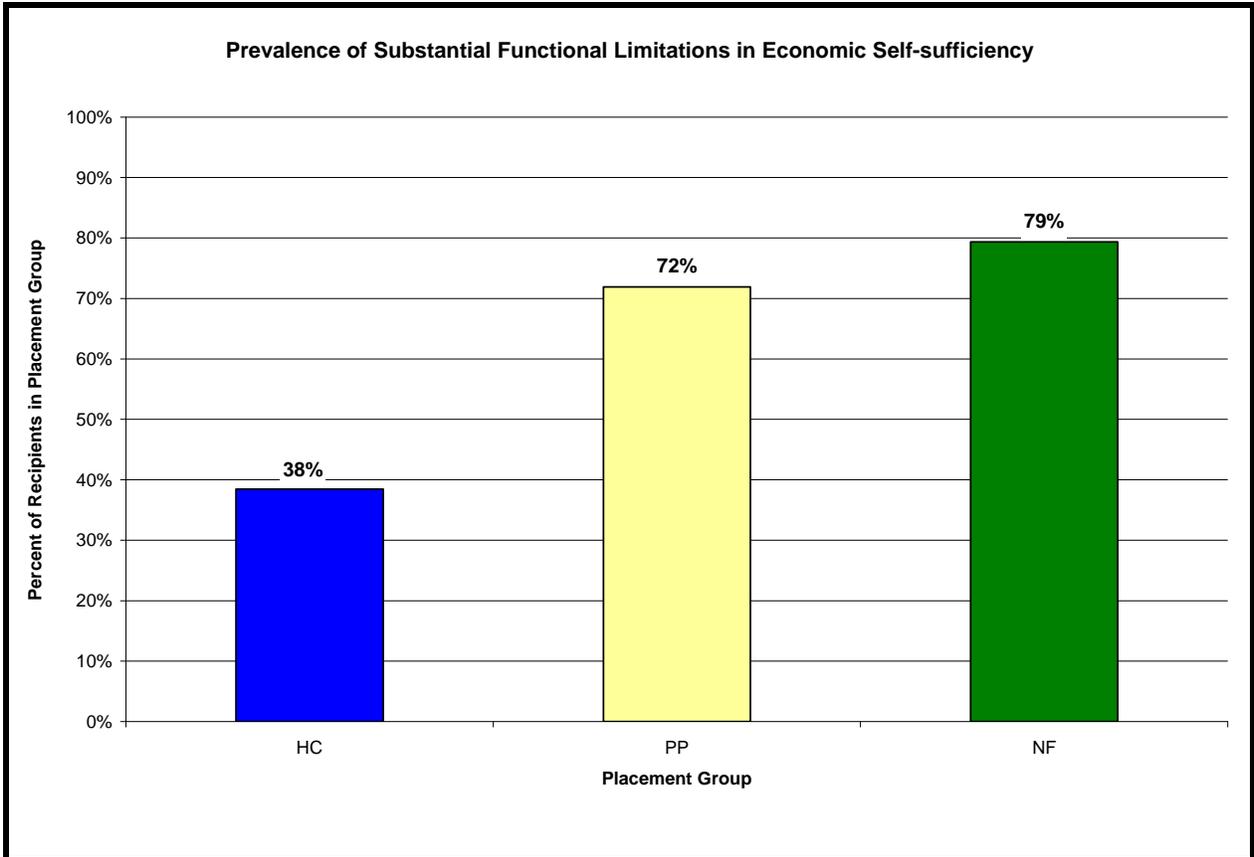


Figure 36. Prevalence of Substantial Functional Limitations in Economic Self-Sufficiency

Over 70% of both the Nursing Facility and PASSPORT groups had limitations in economic self-sufficiency due to their chronic disability, but only 38% of the Home Care group has such limitations.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21. Behavioral Characteristics

5.21.1. Disorientation to Person

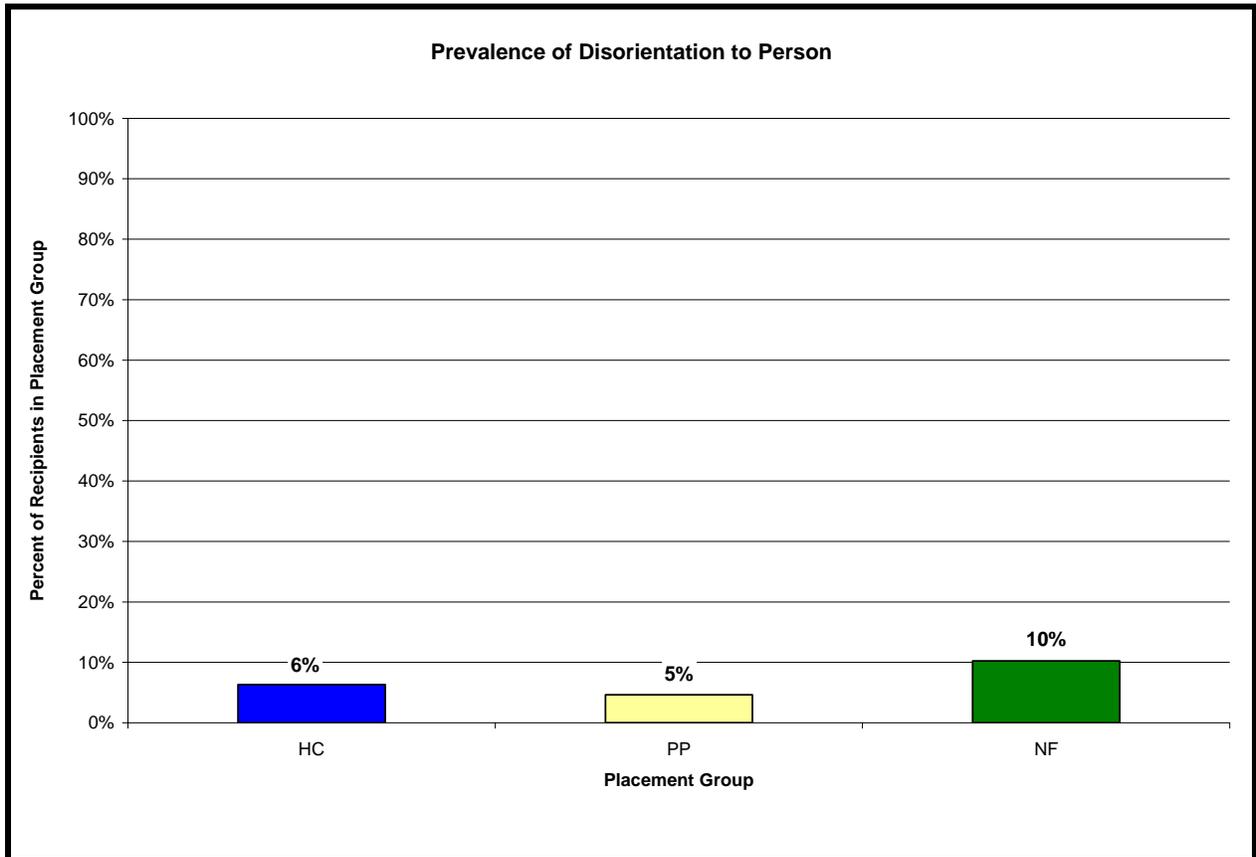


Figure 37. Prevalence of Disorientation to Person

No more than 10% of consumer in each of the 3 groups were found to have disorientation to person, with the Nursing Facility having the highest proportion at 10% and PASSPORT having the lowest at 5%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.2. Disoriented to Place

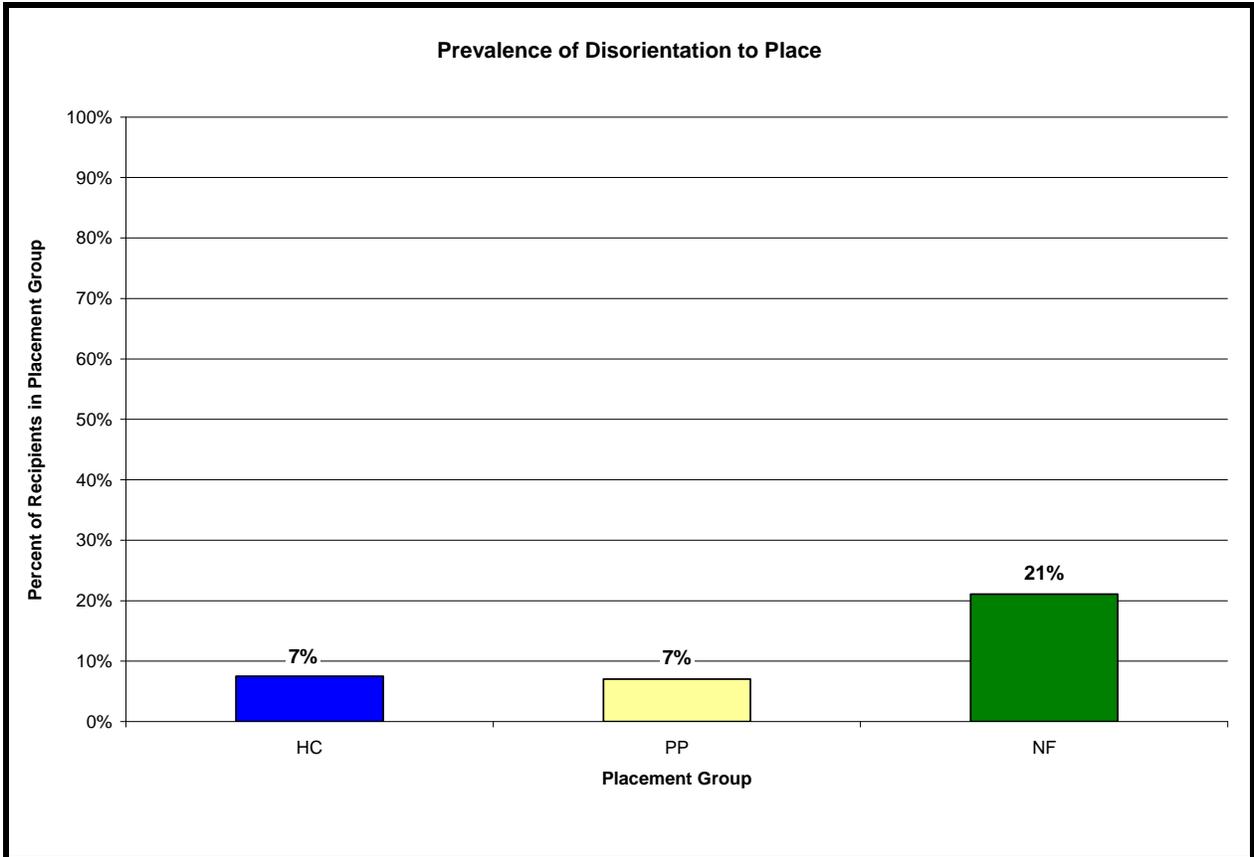


Figure 38. Prevalence of Disorientation to Place

Twenty-one percent of the Nursing Facility group experienced disorientation to place, but only 7% had such disorientation in each of the waiver program groups.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.3. Disoriented to Time

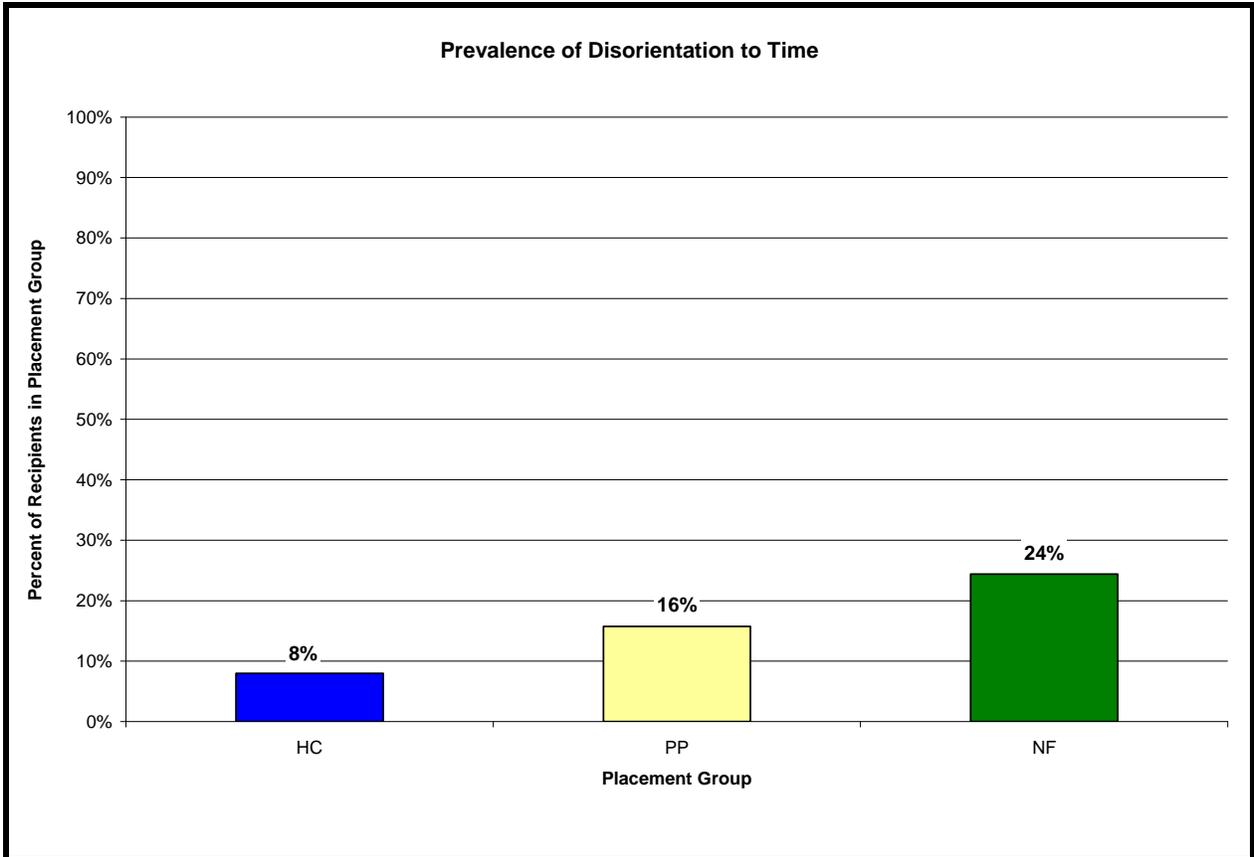


Figure 39. Prevalence of Disorientation to Time

The Nursing Facility group had the highest proportion of consumers with disorientation to time at 24%, followed by the PASSPORT group at 16% and the Home Care group at 8%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.4. Confusion

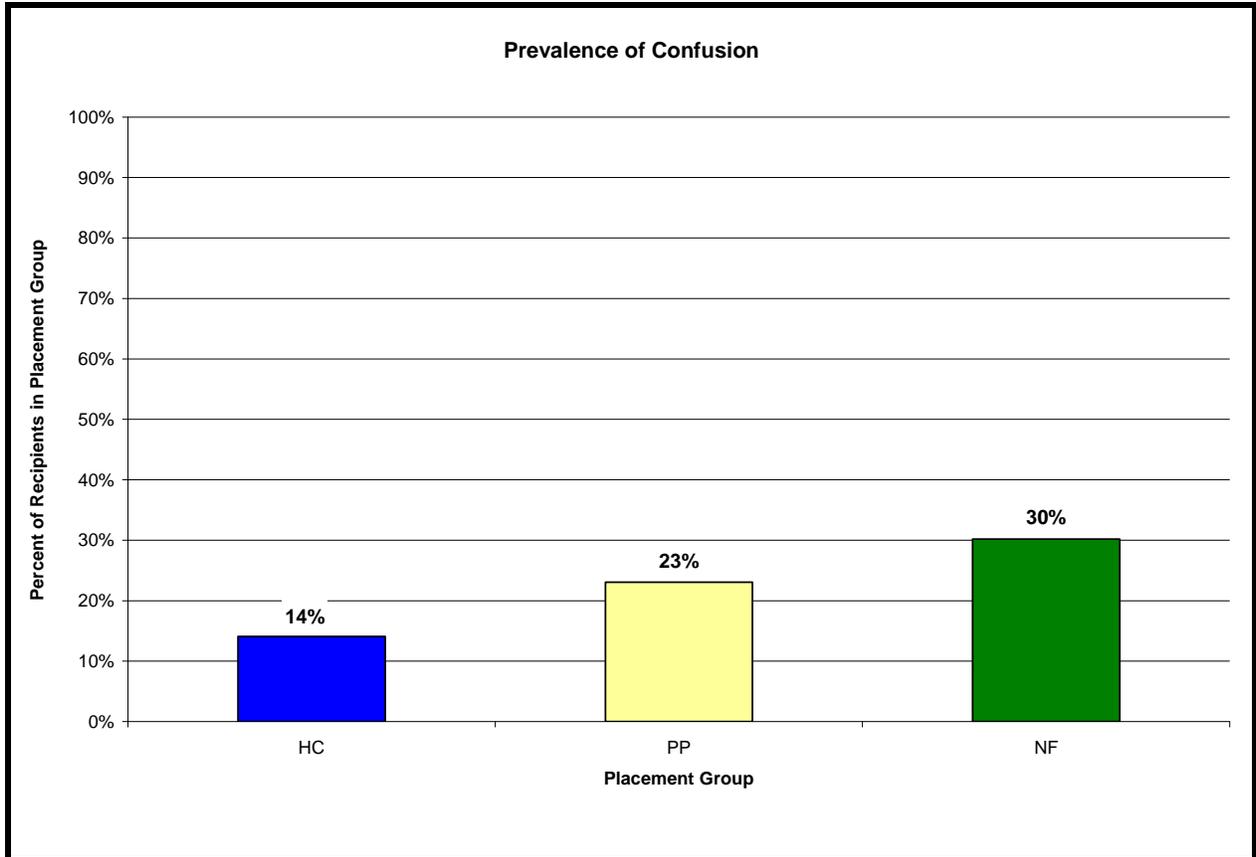


Figure 40. Prevalence of Confusion

The Nursing Facility had the highest proportion of consumers with confusion at 30%, followed by the PASSPORT group at 23% and the Home Care group at 14%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.5. Withdrawn, Isolates Self

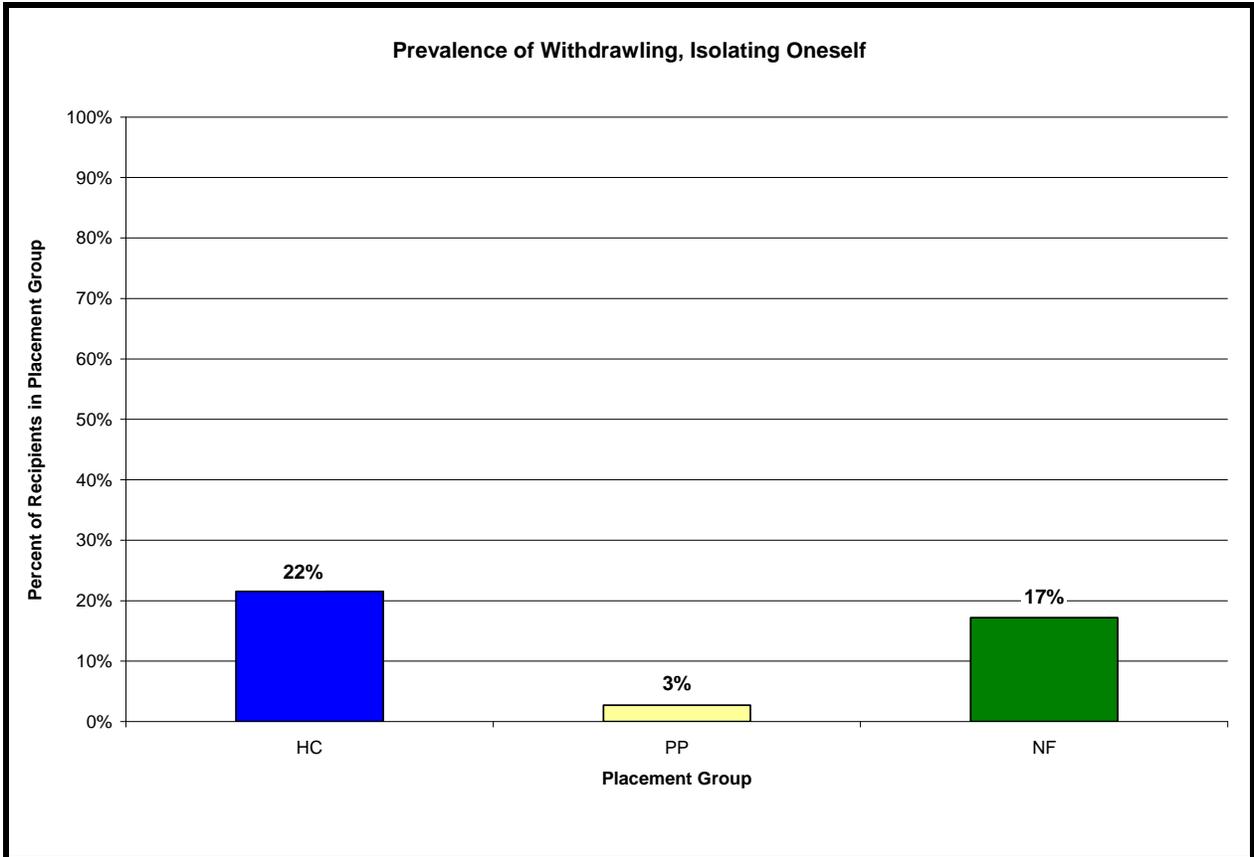


Figure 41. Prevalence of Withdrawing, Isolating Oneself

The Home Care group had the highest proportion of consumers who were withdrawn at 22%, followed by the Nursing Facility group at 17% and the PASSPORT group at only 3%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.6. Hyperactive

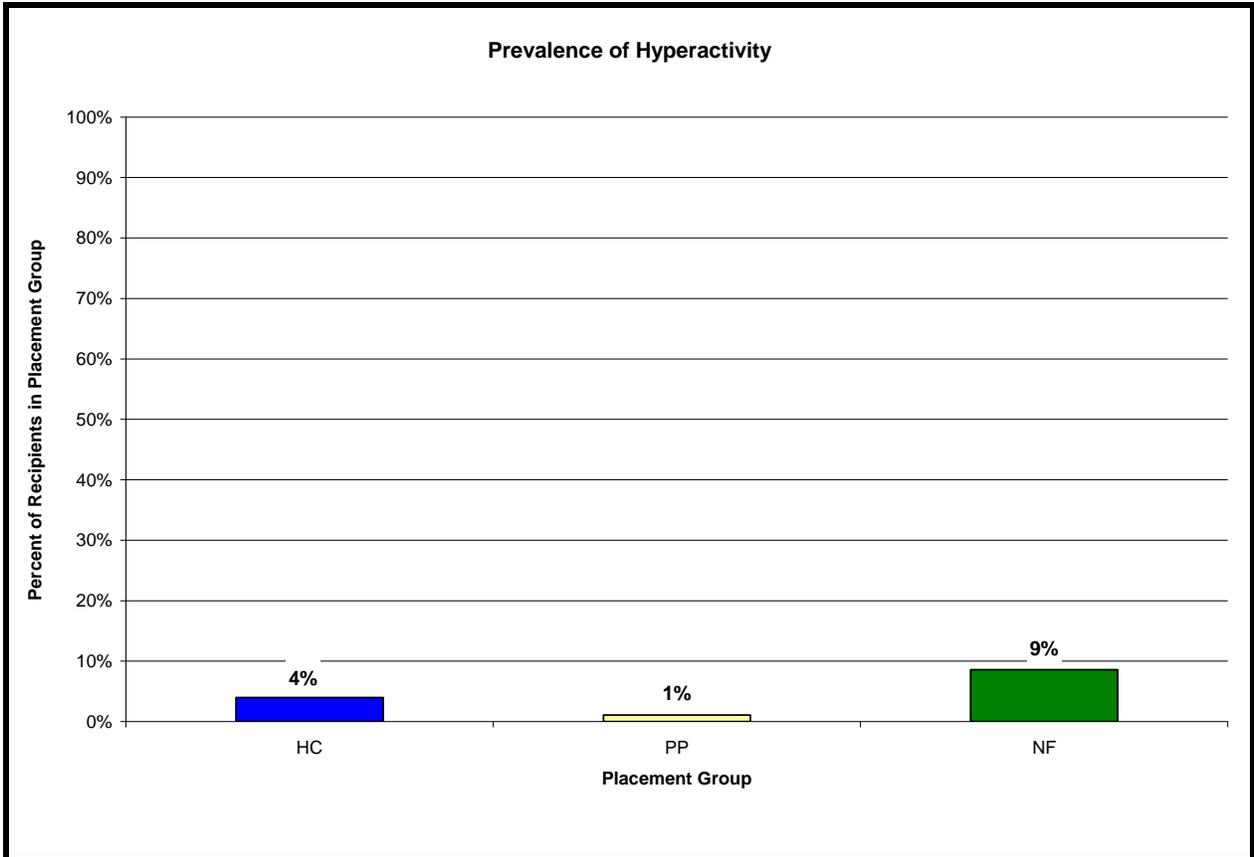


Figure 42. Prevalence of Hyperactivity

The Nursing Facility group had the highest proportion of consumers with hyperactivity at 9%. The Home Care group had the next highest proportion at 4%, and the PASSPORT group had only 1%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.7. Mood Swings

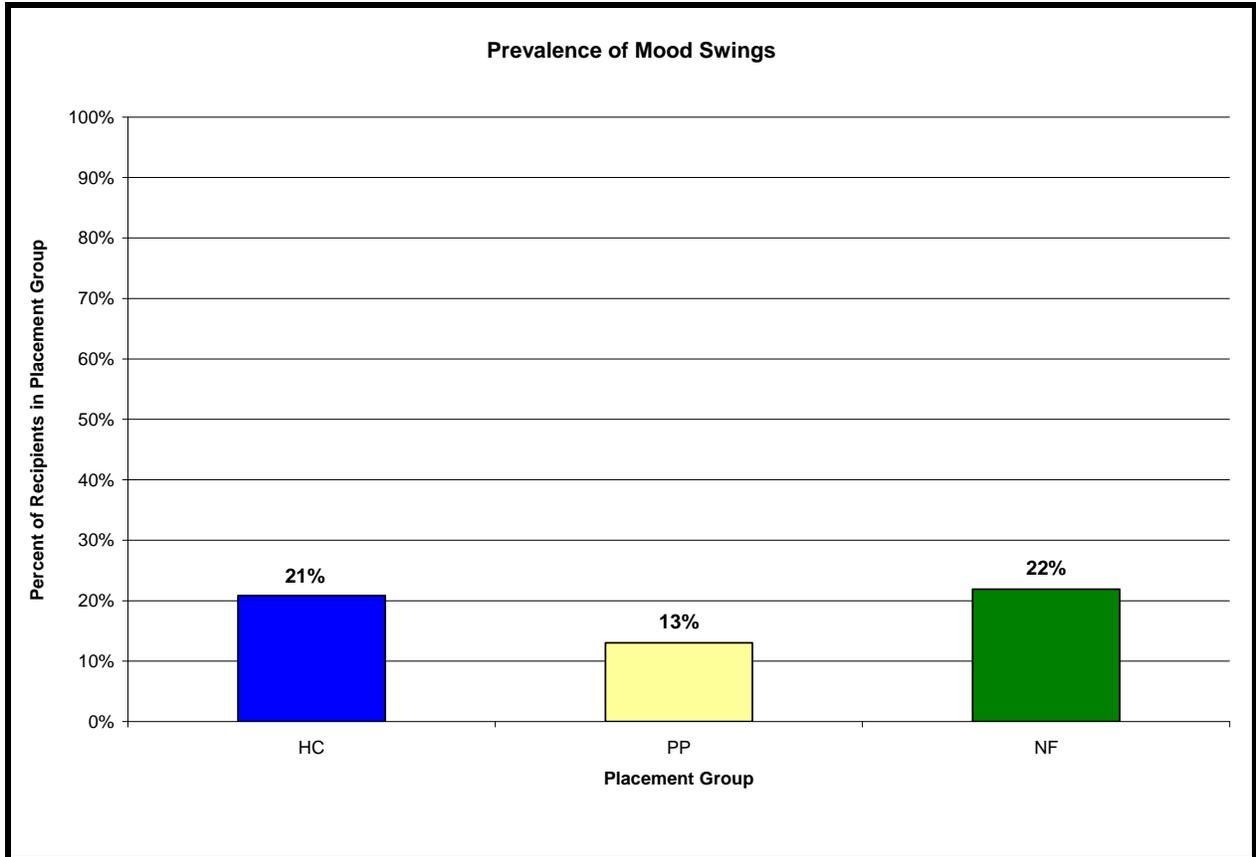


Figure 43. Prevalence of Mood Swings

The proportion of consumers with mood swings was similar in the Nursing Facility and Home Care groups at 22% and 21%, respectively. The PASSPORT group was slightly lower at 13%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.8. Exhibits Bizarre Behavior

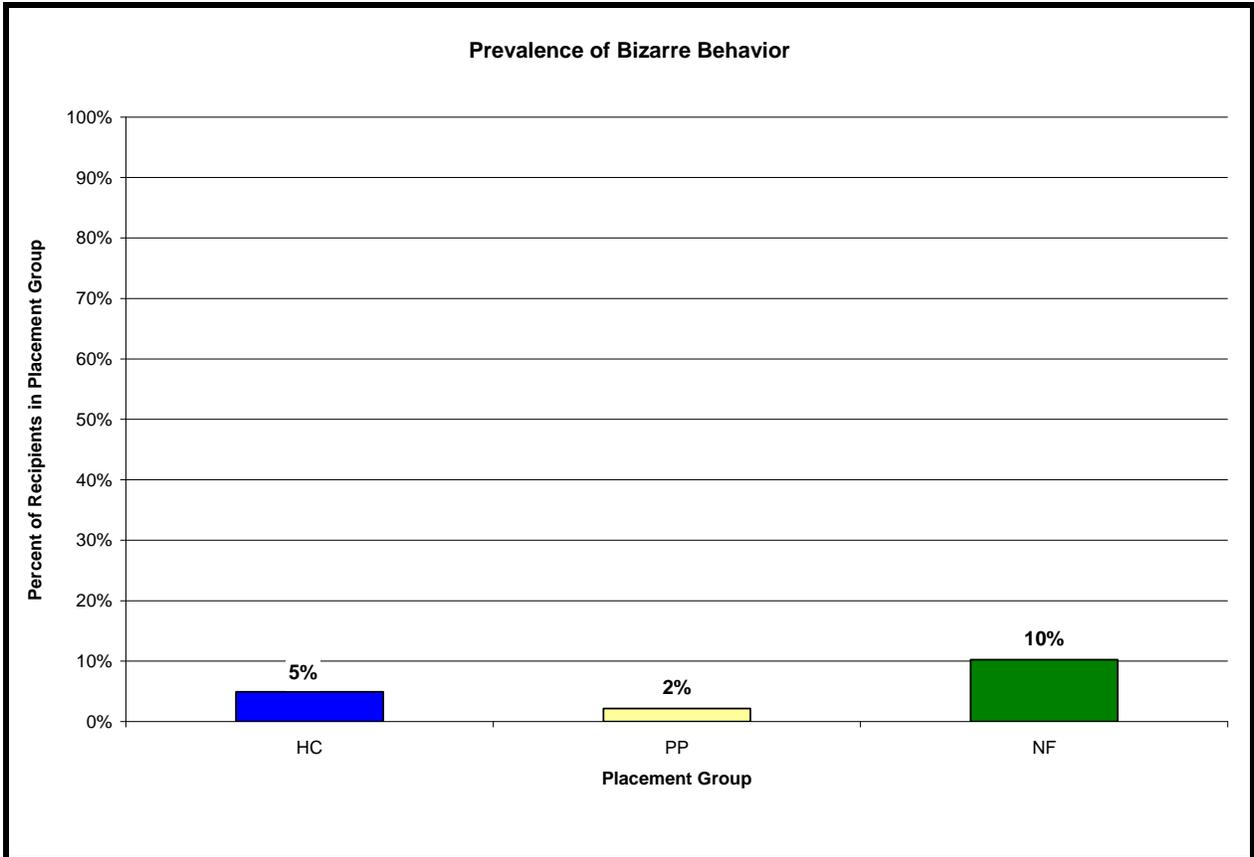


Figure 44. Prevalence of Bizarre Behavior

The Nursing Facility group had the highest proportion of consumers with bizarre behavior at 10%, followed by the Home Care group at 5% and the PASSPORT group at 2%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.9. Neglect to Self

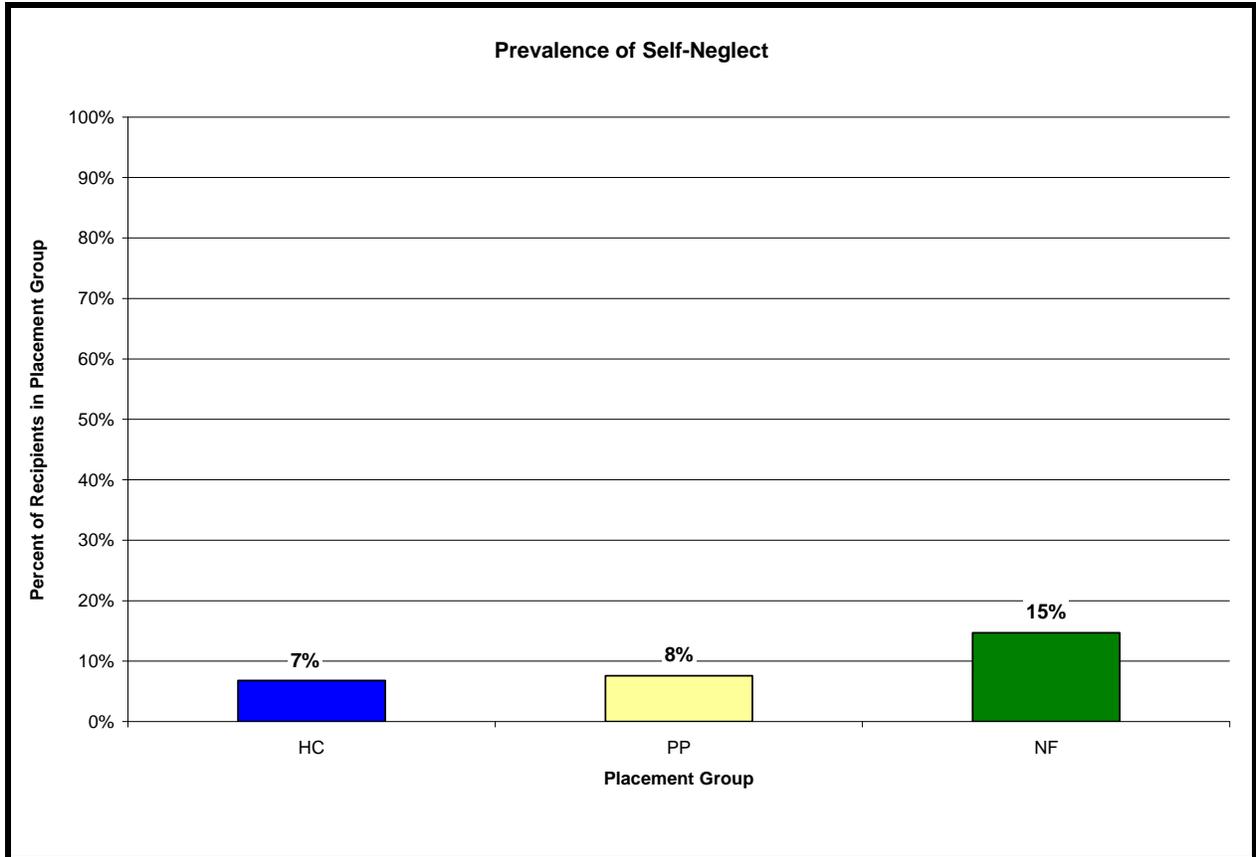


Figure 45. Prevalence of Self-Neglect

The Nursing Facility had the highest proportion of consumers who exhibited self-neglect at 15%. The waiver programs had lower rates of 7% for the Home Care group and 8% for the PASSPORT group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.10. Verbally Abusive/Aggressive

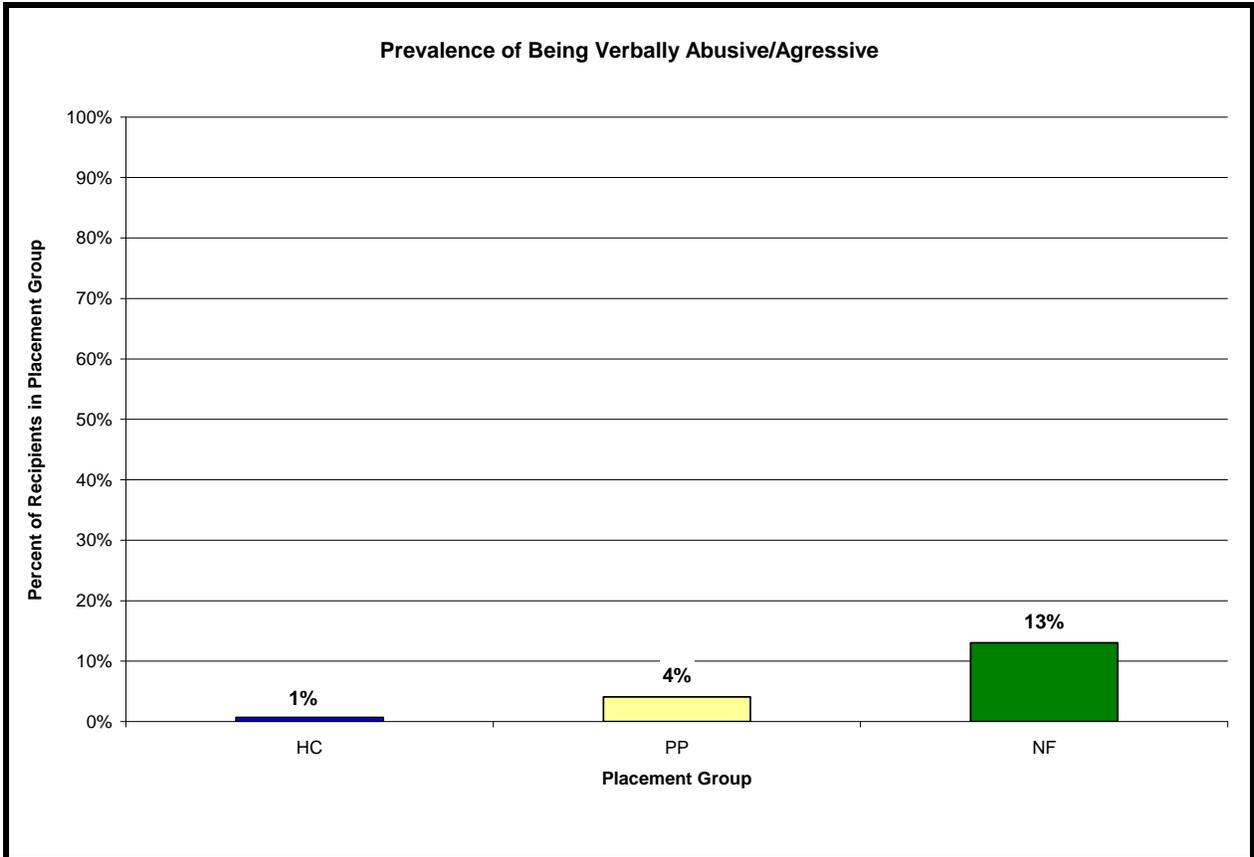


Figure 46. Prevalence of Being Verbally Abusive/Aggressive

Verbal abuse/aggression was most prevalent in the Nursing Facility group at 13%. It was found in 4% of the PASSPORT group and only 1% of the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.11. Physically Abusive/Aggressive

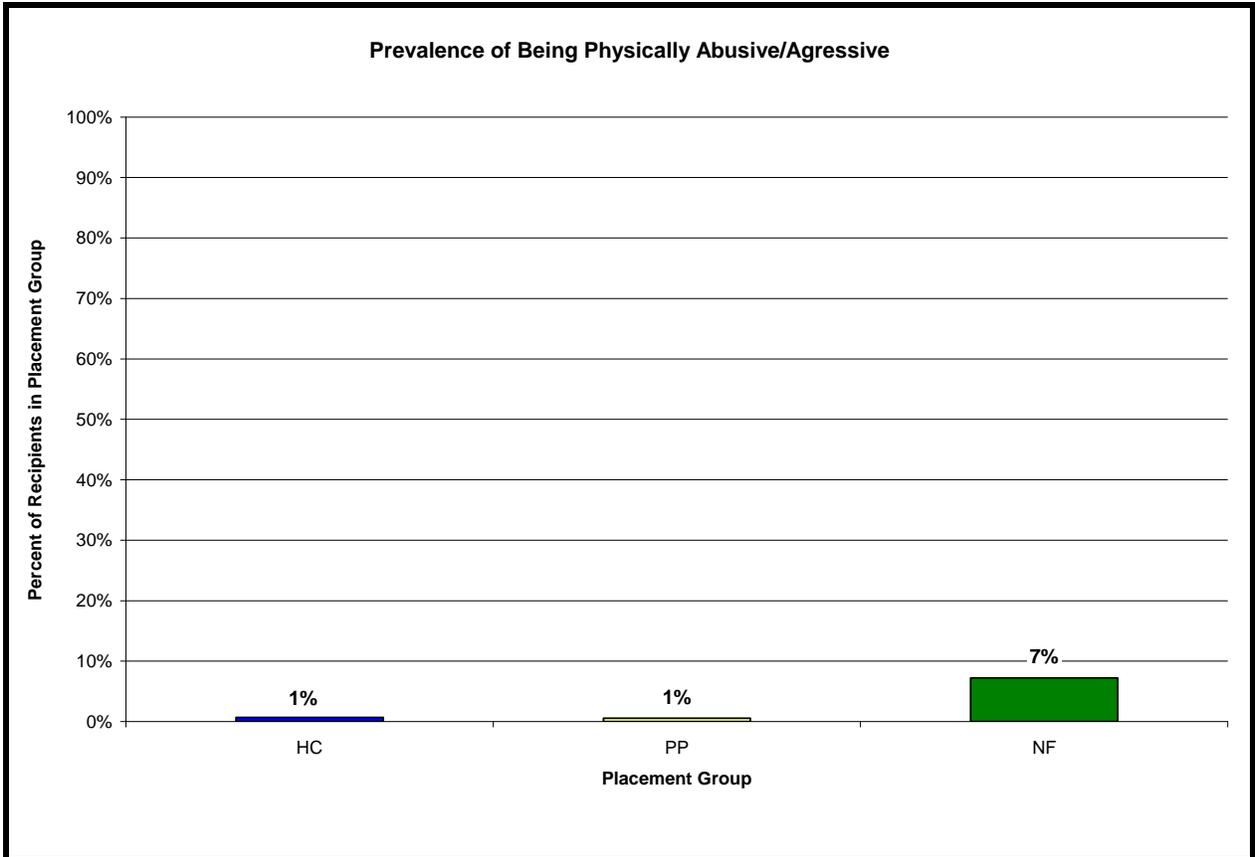


Figure 47. Prevalence of Being Physically Abusive/Aggressive

Seven percent of the Nursing Facility group was found to be physically abusive/aggressive, as compared to only 1% of both the Home Care and PASSPORT groups.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.12. Wanders Mentally

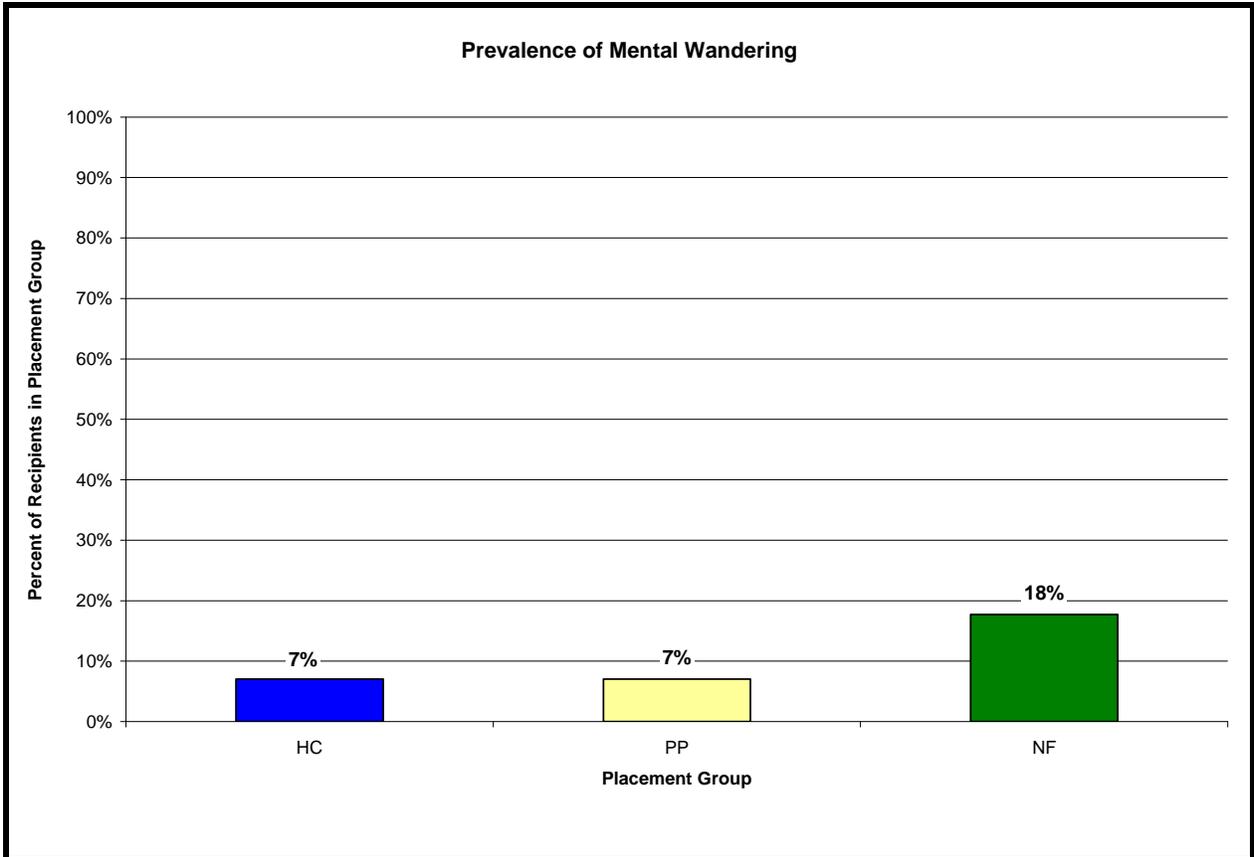


Figure 48. Prevalence of Mental Wandering

The Nursing Facility group had the highest prevalence of mental wandering at 18%. Both waiver program groups had a 7% rate.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.13. Wanders Physically

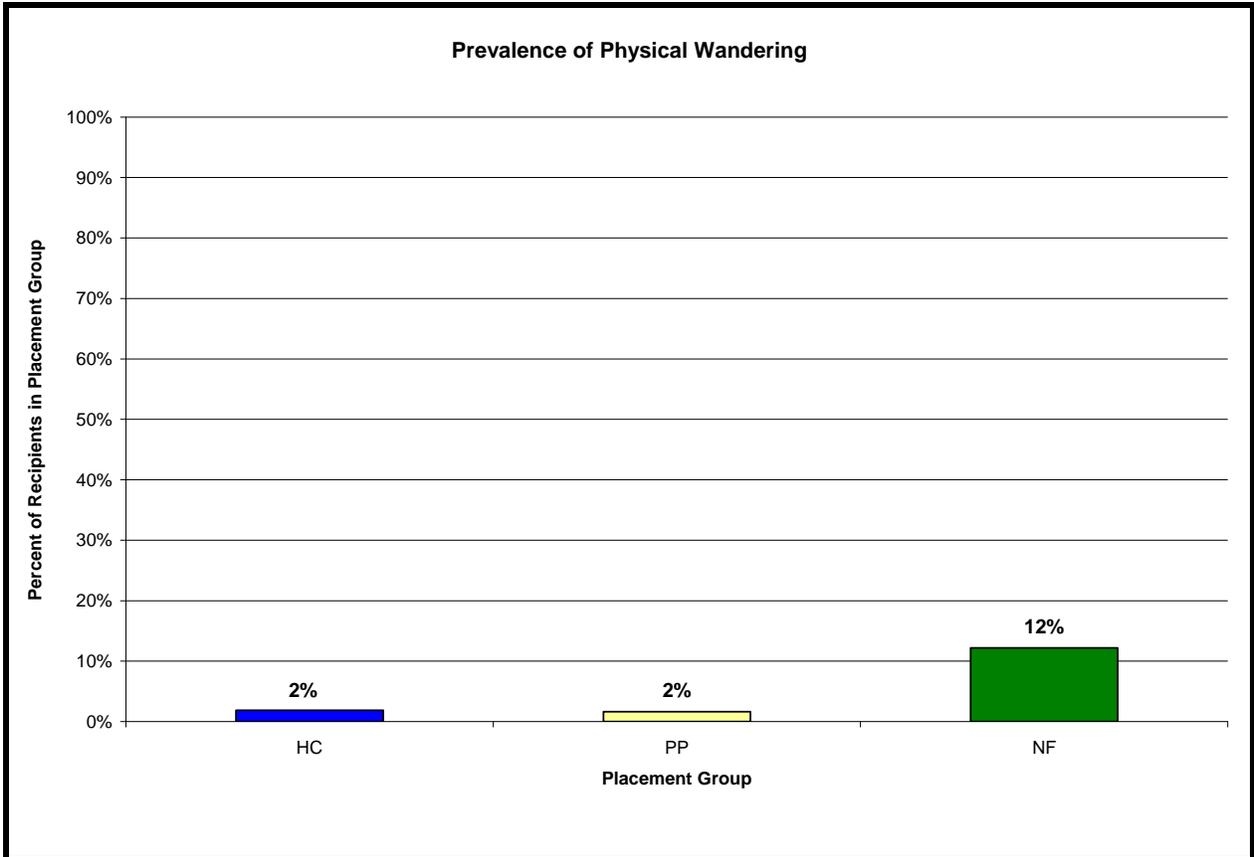


Figure 49. Prevalence of Physical Wandering

The Nursing Facility group had the highest proportion of consumers who wandered physically at 12%. The waiver program groups both had a 2% rate.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.14. Agitation

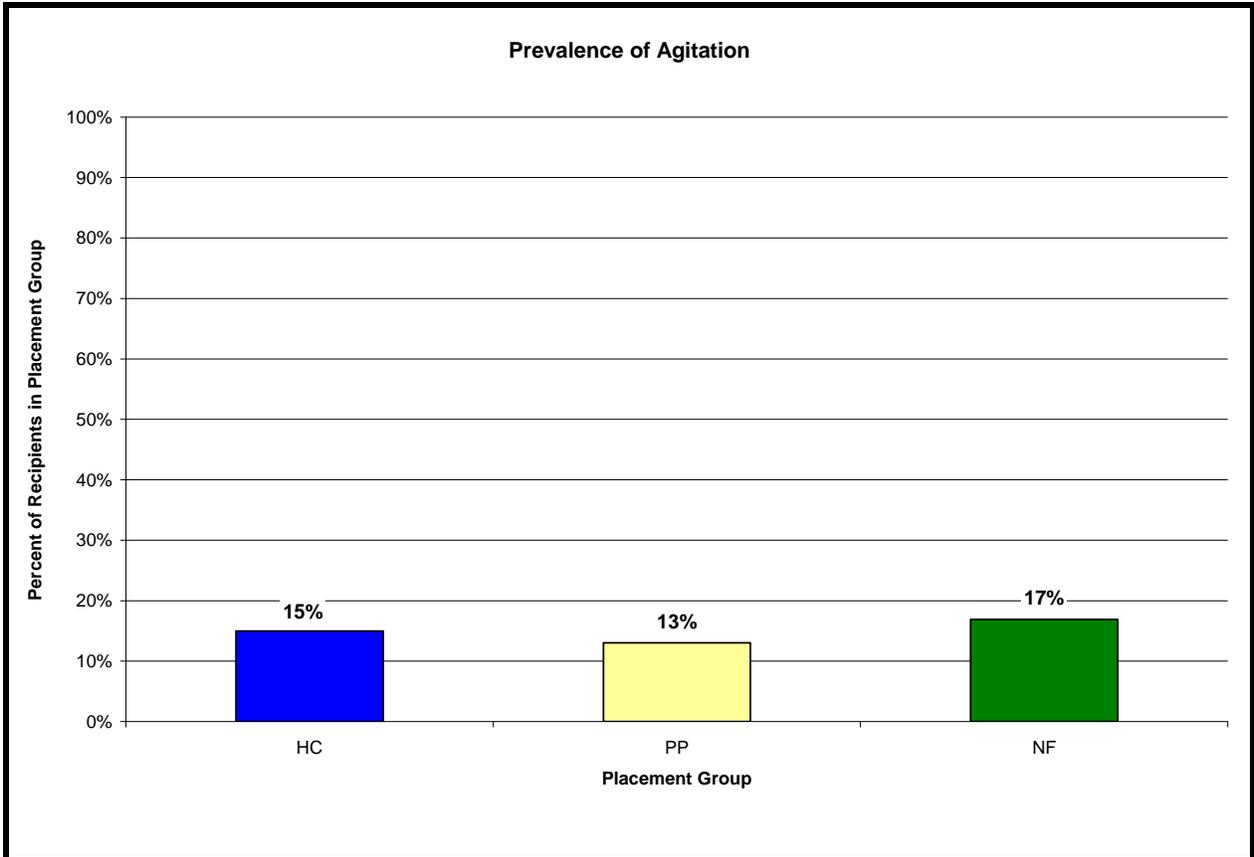


Figure 50. Prevalence of Agitation

The prevalence of agitation was similar among the 3 groups with 17% in the Nursing Facility group, 15% in the Home Care group, and 13% in the PASSPORT group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.15. Cannot Make Own Decisions

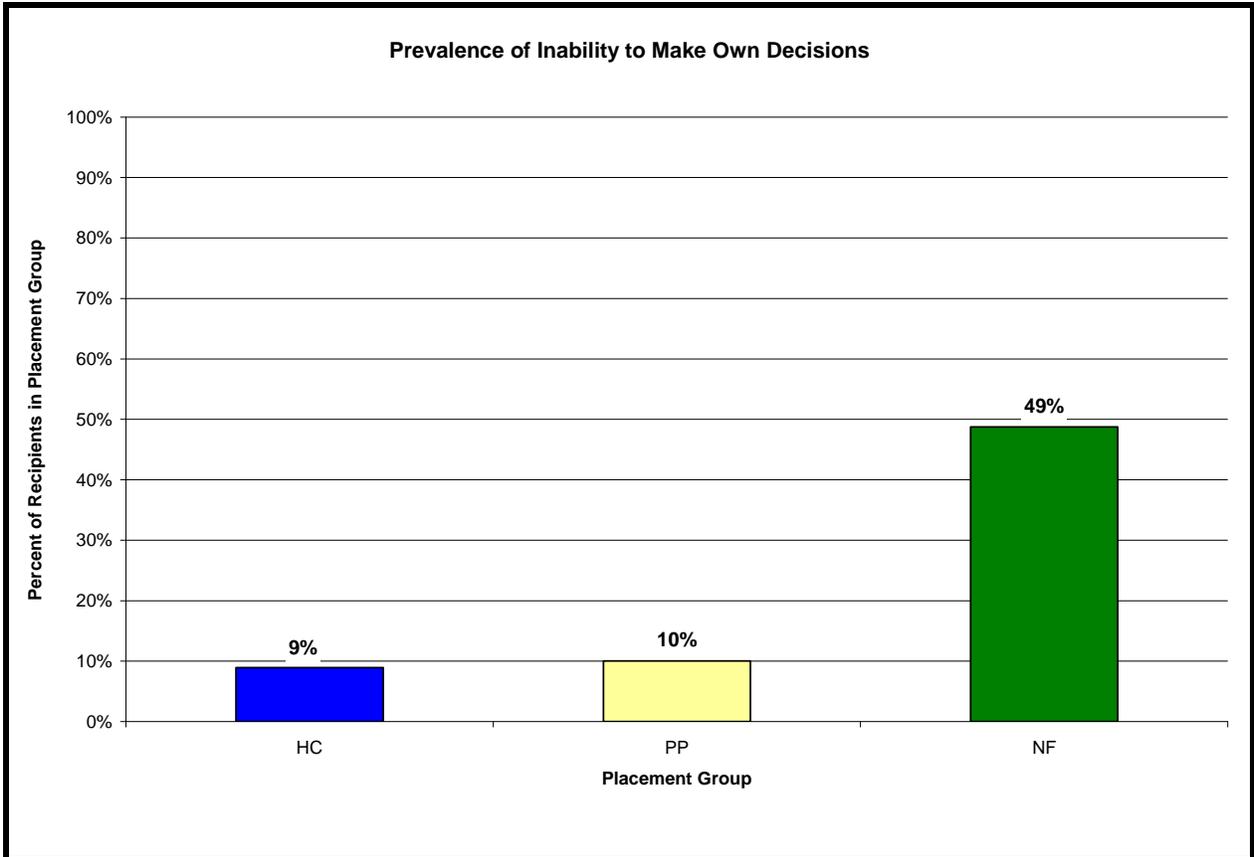


Figure 51. Prevalence of Inability to Make Own Decisions

Nearly half of the Nursing Facility group was unable to make their own decisions, as compared to 10% in the PASSPORT group and 9% in the Home Care group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.16. Difficulty Sleeping

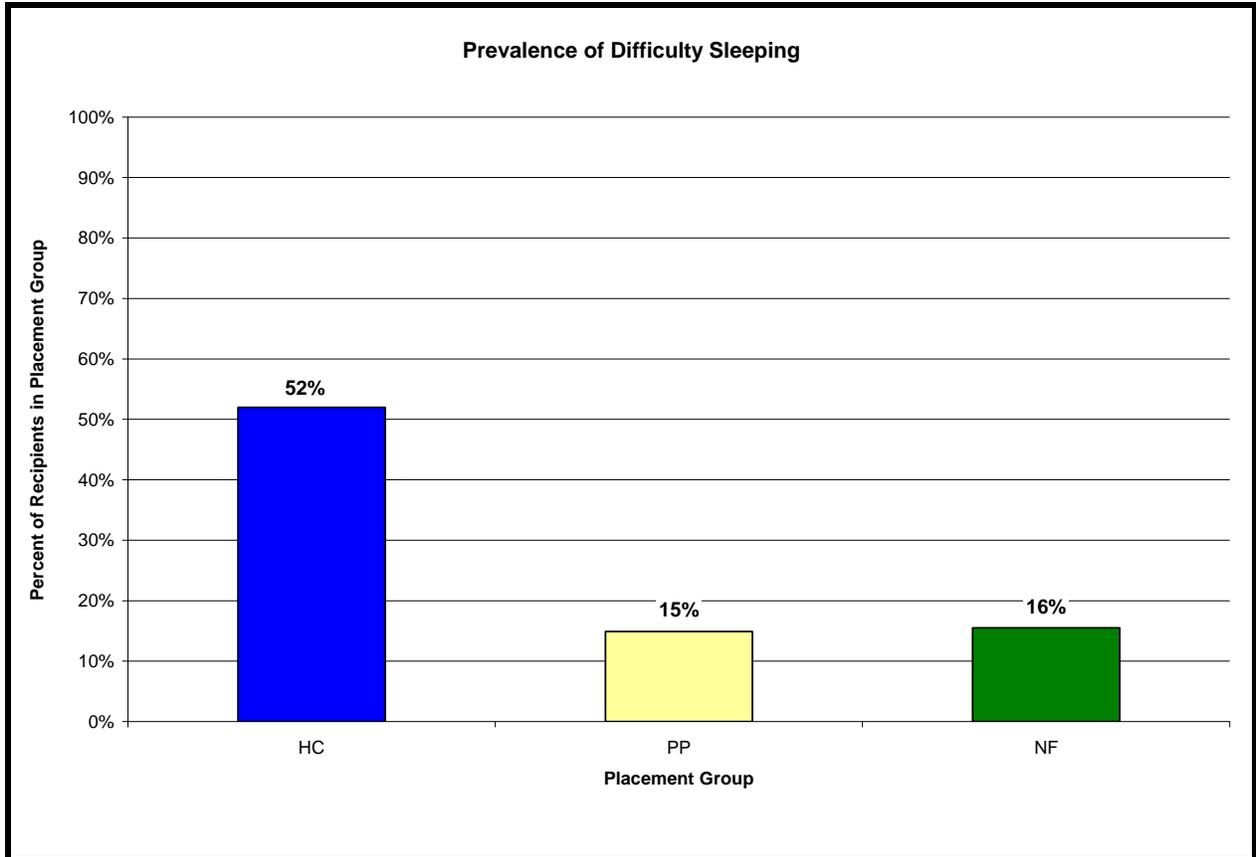


Figure 52. Prevalence of Difficulty Sleeping

Over half of the Home Care group experienced difficulty sleeping, which was considerably higher than the 15% in the PASSPORT group and 16% in the Nursing Facility group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.21.17. Difficulty Concentrating

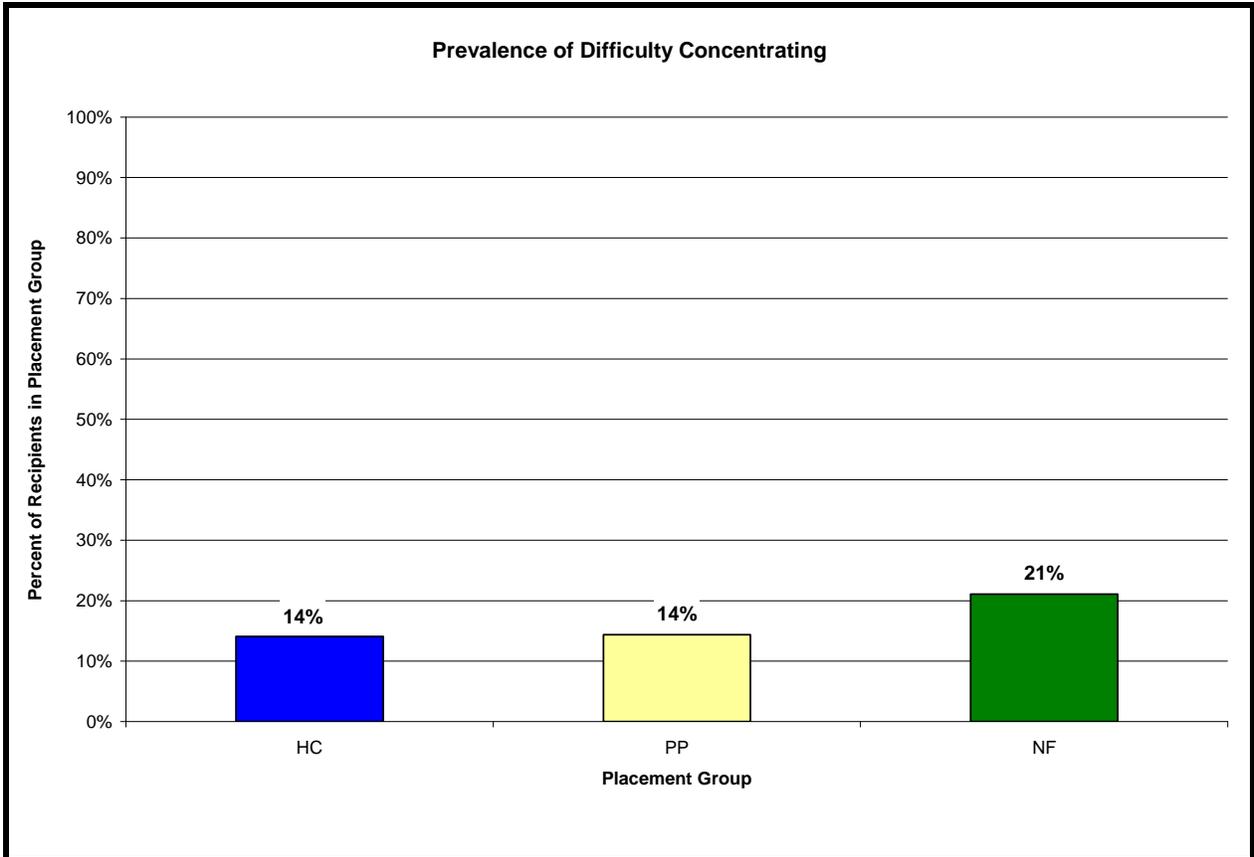


Figure 53. Prevalence of Difficulty Concentrating

The Nursing Facility group had the highest proportion of consumers with difficulty concentrating at 21%. The waiver programs were both roughly 30% lower at 14%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.22. Supervision Needs

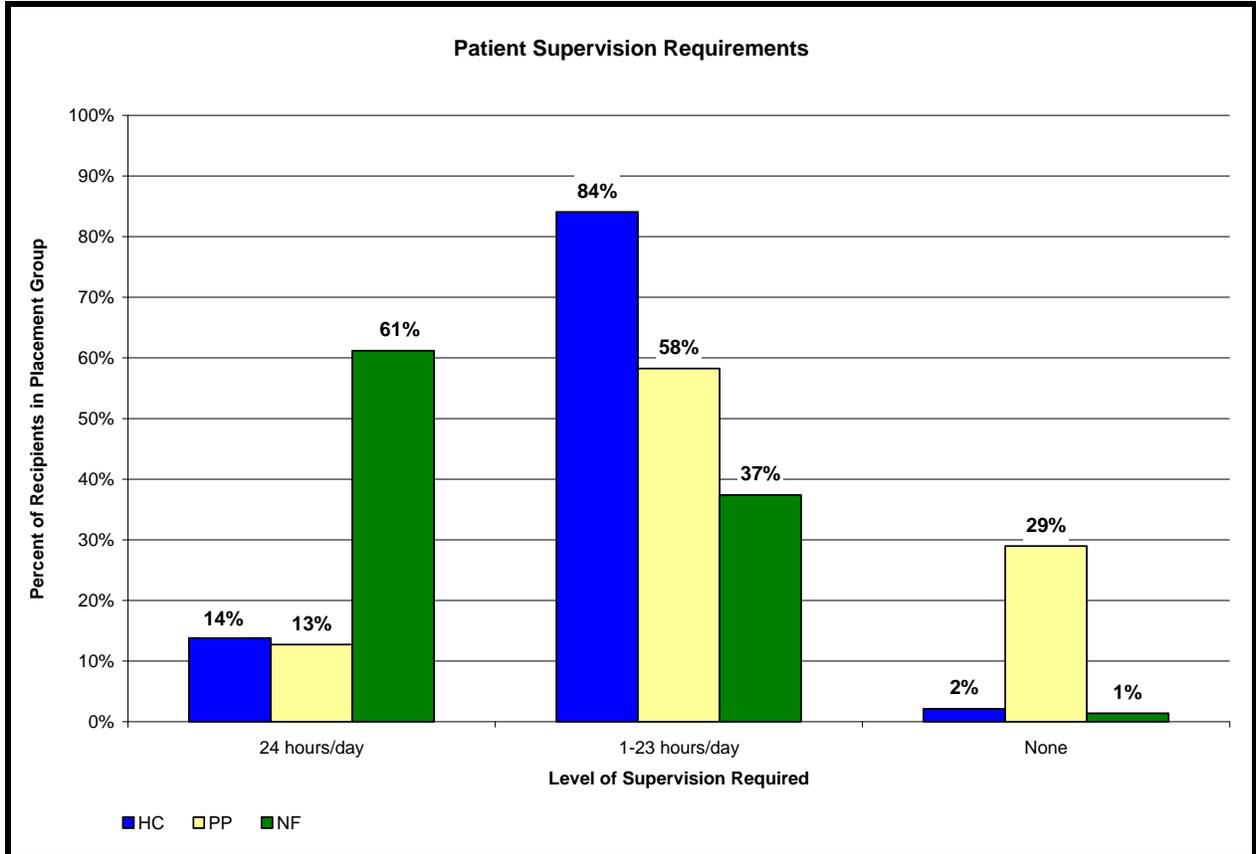


Figure 54. Patient Supervision Requirements

The majority of consumers in the Nursing Facility group needed *supervision 24 hours a day*, whereas only 14% of the Home Care group and 13% of the PASSPORT group needed such a high level of supervision. The majority of both the waiver programs needed *supervision only 1-23 hours per day* (84% Home Care and 58% PASSPORT), and 37% of the Nursing Facility required that level. Twenty-nine percent of the PASSPORT group required *no supervision*, but only 2% of the Home Care group and 1% of the Nursing Facility group did not have require any supervision.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23. Skilled Care

5.23.1. Rehabilitation Services

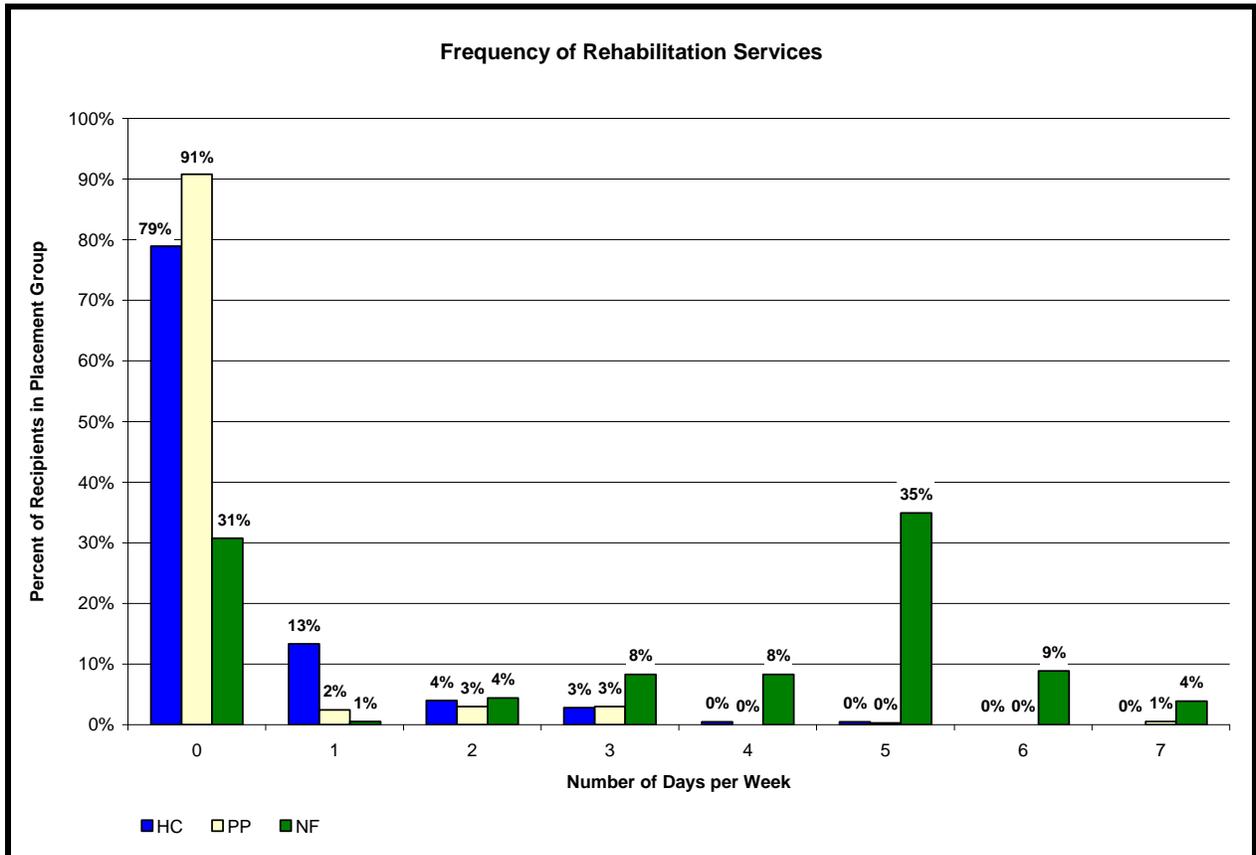


Figure 55. Frequency of Rehabilitation Services

Nursing Facility group consumers were more likely to require rehabilitation therapy services, with 69% requiring such services at least one day per week. The Home Care group only had 21% that needed such services, and the PASSPORT group only had 9%. This information was obtained from documented need and frequency of services from the admission assessment tools.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.2. Parenteral Nutrition

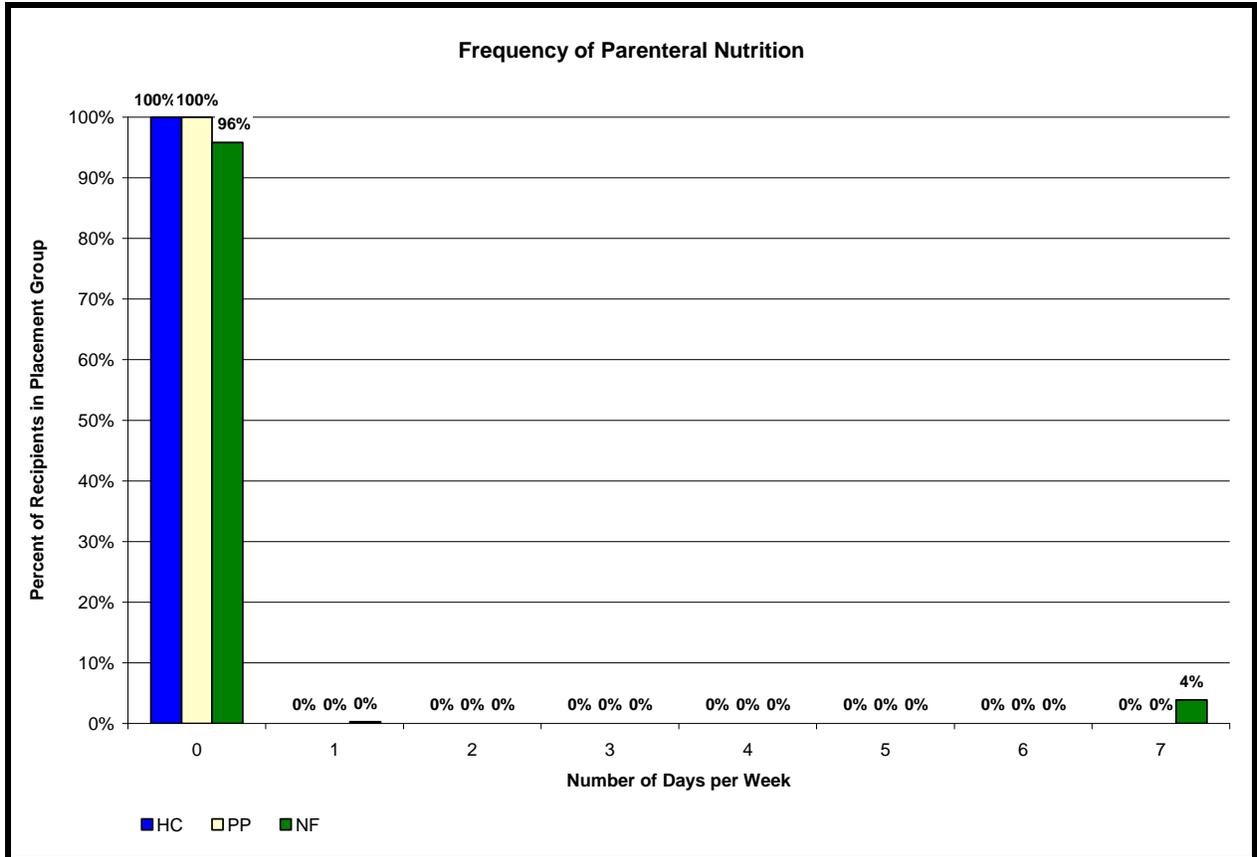


Figure 56. Frequency of Parenteral Nutrition

Parenteral nutrition was not common in any of the groups, and only the Nursing Facility group had any instances of the service.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.3. Respiratory Care

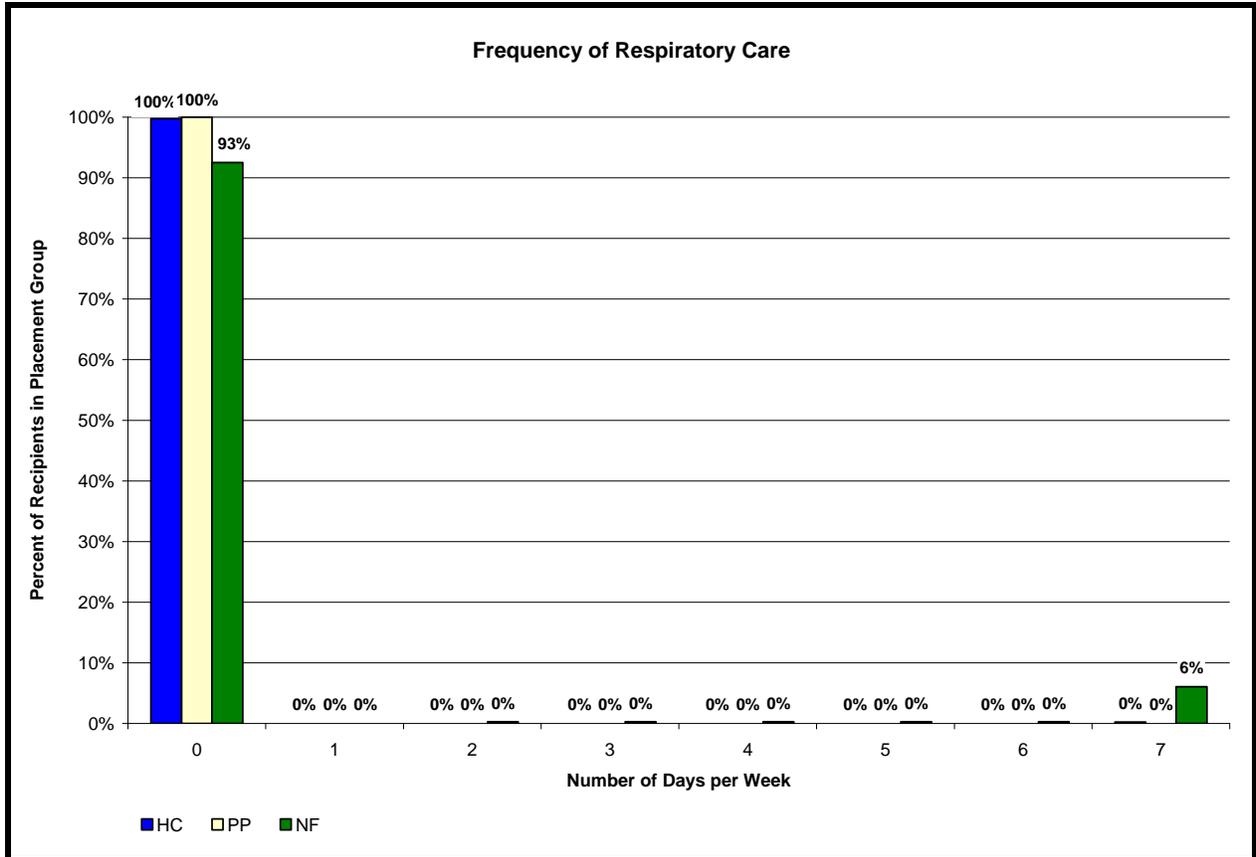


Figure 57. Frequency of Respiratory Care

Respiratory care was required by almost 7% of the Nursing Facility group and less than 1% of the PASSPORT group. No sampled consumers in the Home Care group required respiratory services.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.4. Chemotherapy

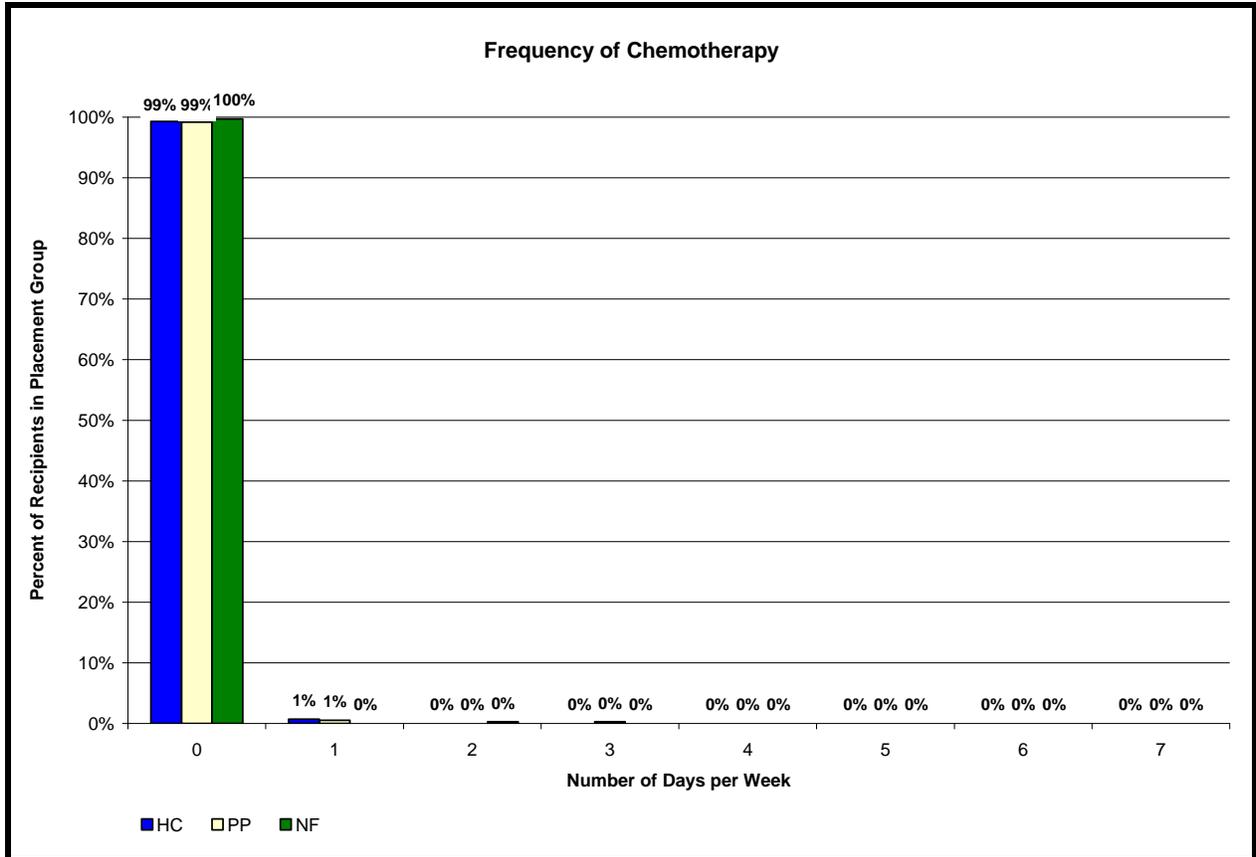


Figure 58. Frequency of Chemotherapy

Only 1% of the waiver program groups and less than 1% of the Nursing Facility group required chemotherapy services.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.5. Dialysis

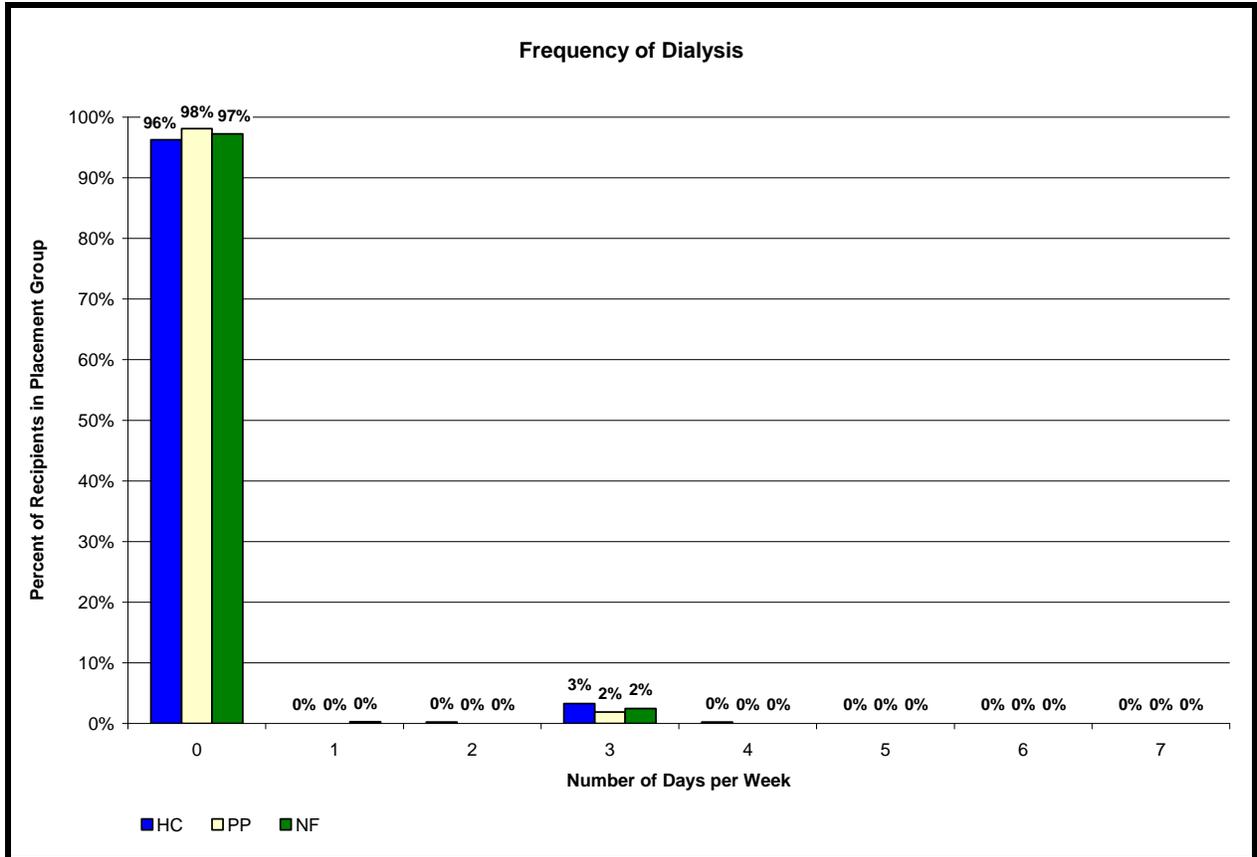


Figure 59. Frequency of Dialysis

Frequency of dialysis was similar among the 3 groups with 4% of the Home Care group, 2% of the PASSPORT group, and 3% of the Nursing Facility group receiving such services.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.6. Treatment for Pressure of Status Ulcers

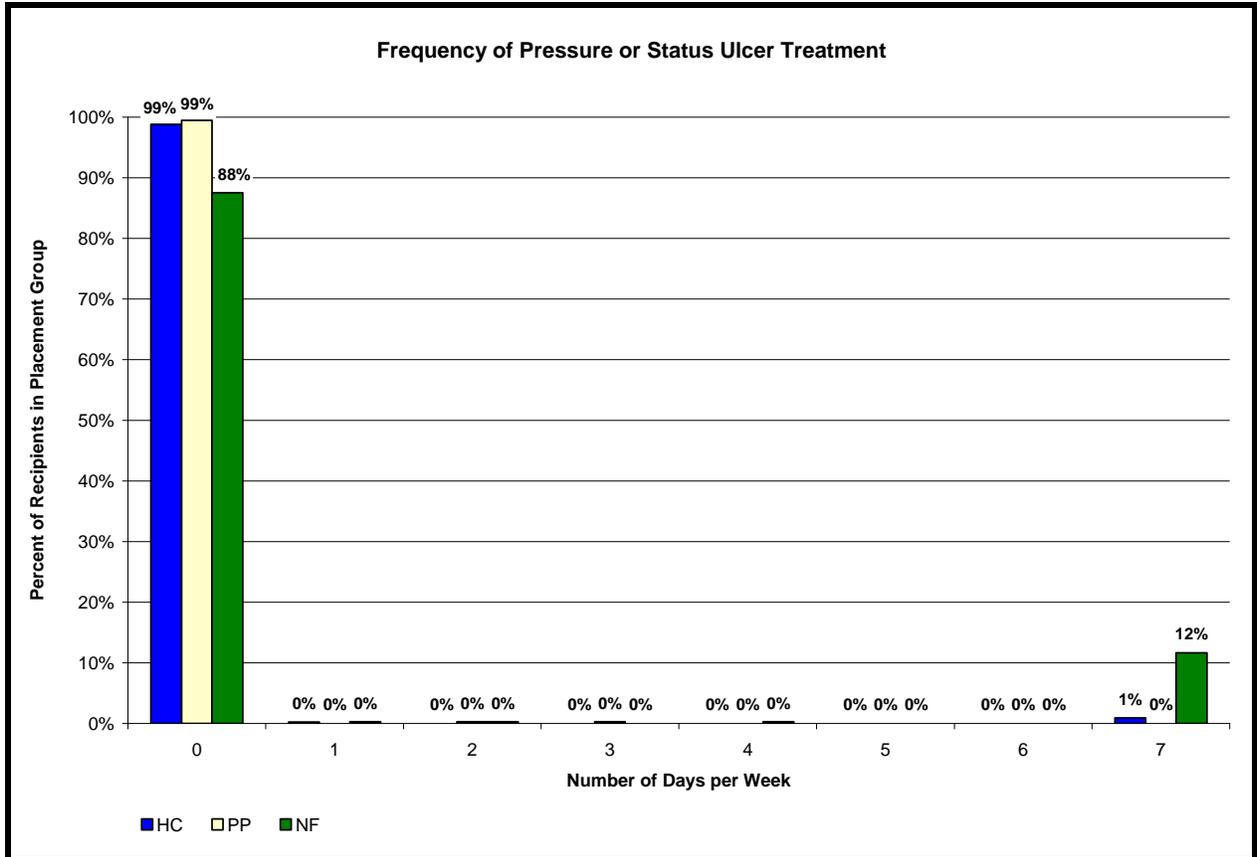


Figure 60. Frequency of Pressure or Status Ulcer Treatment

Treatment for pressure ulcers was more common in the Nursing Facility group with 12% needing daily treatment. Roughly 1% of the waiver program groups needed such treatment.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.7. Surgical Wound Care

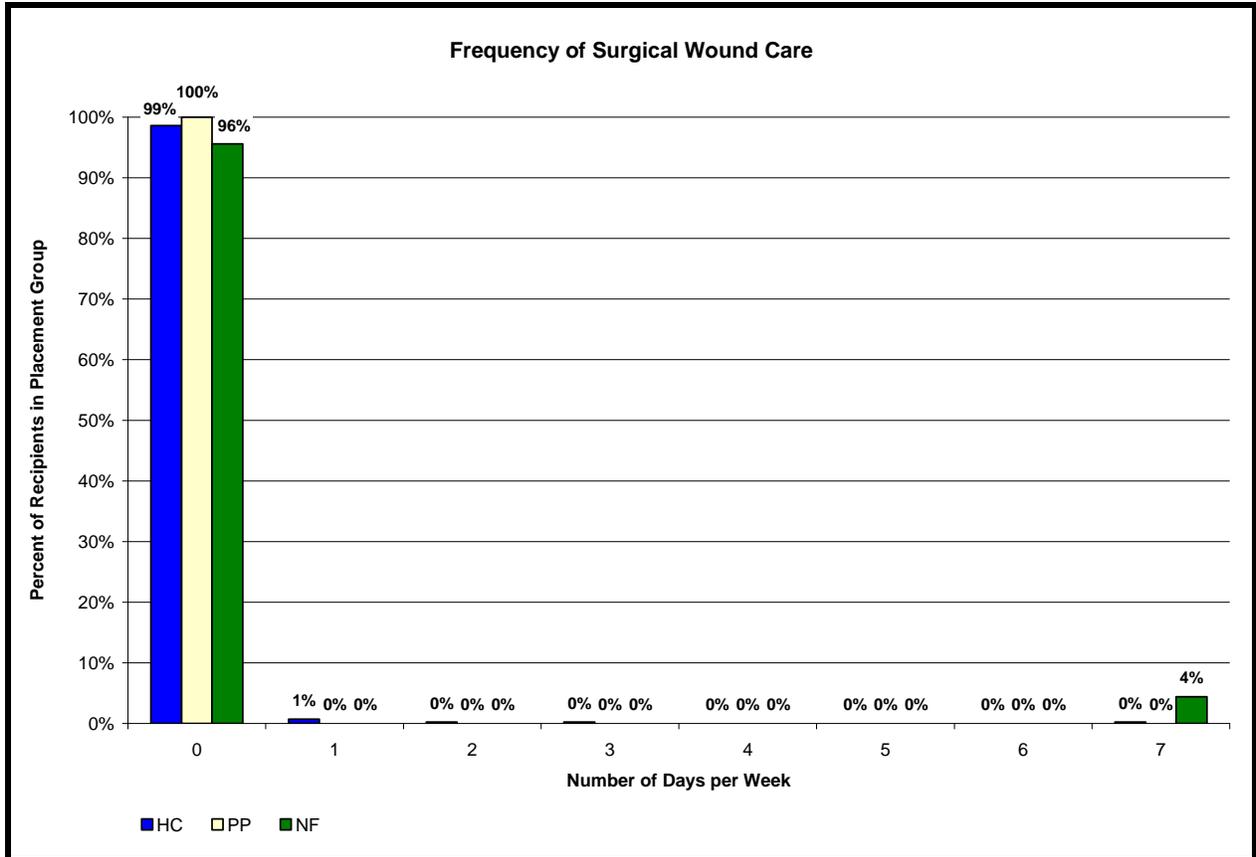


Figure 61. Frequency of Surgical Wound Care

Surgical wound care was required by 4% of the Nursing Facility group and 1% of the Home Care group. No surgical wound care was observed for the PASSPORT group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.8. Burn Care

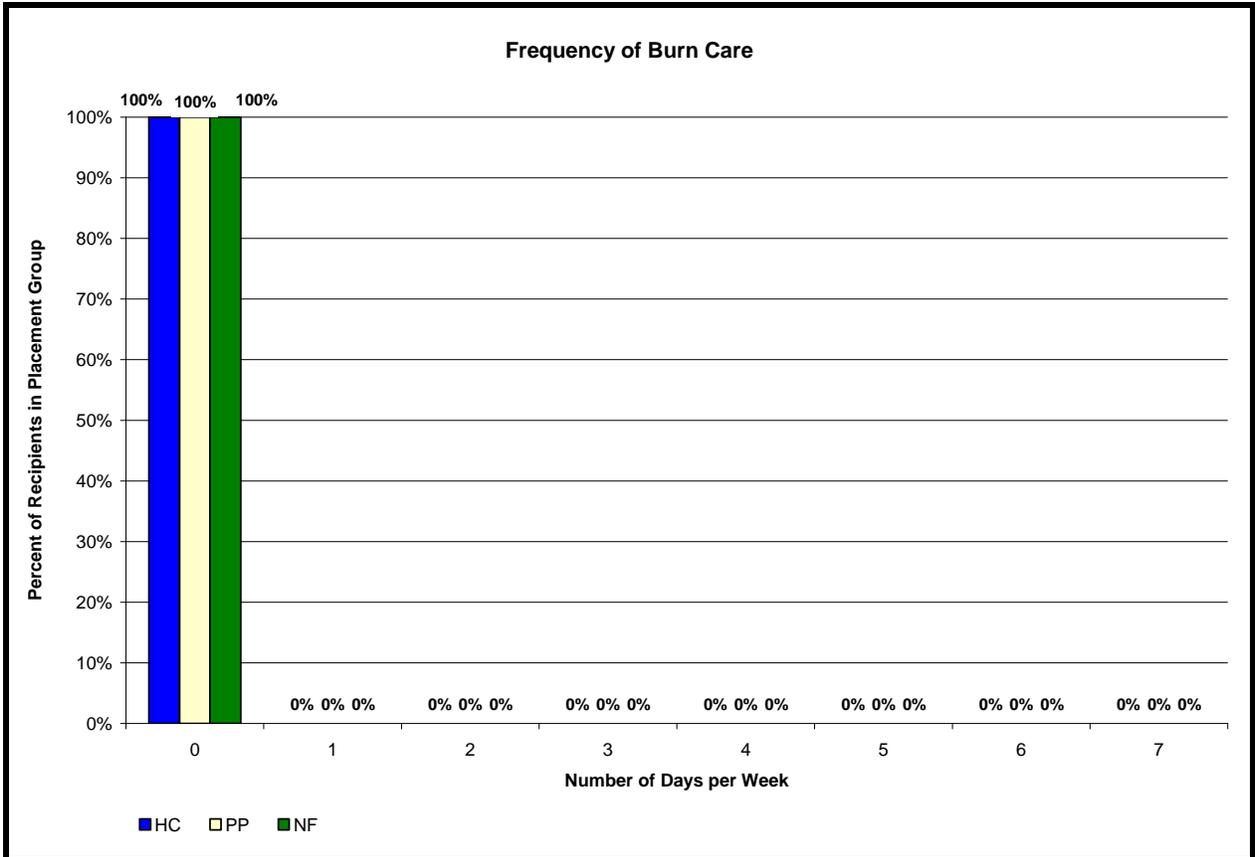


Figure 62. Frequency of Burn Care

No burn care services were required for any of the sampled consumers.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.9. Tube Feeding

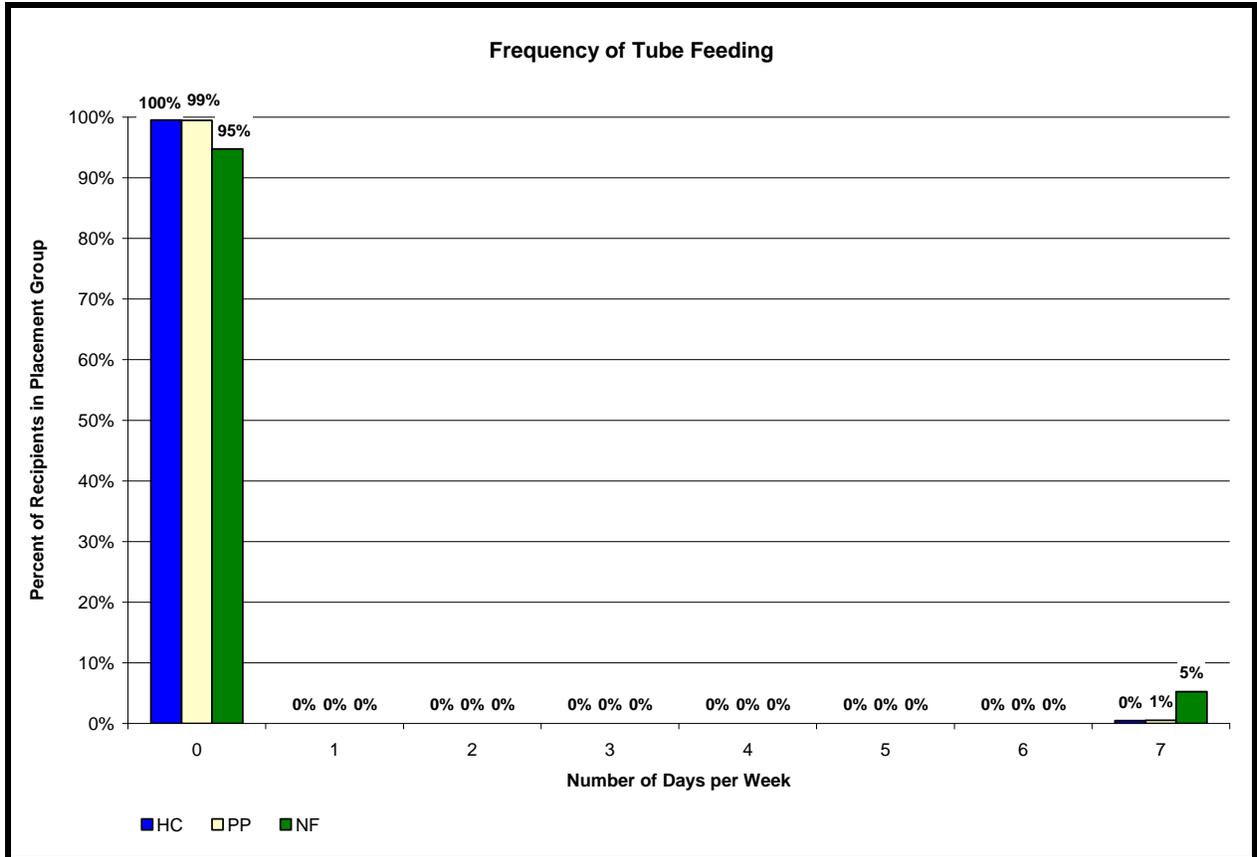


Figure 63. Frequency of Tube Feeding

Roughly 1% of the waiver program groups required tube feeding, as compared to 5% of the Nursing Facility group.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.10. Diabetes Monitoring and Insulin Injections

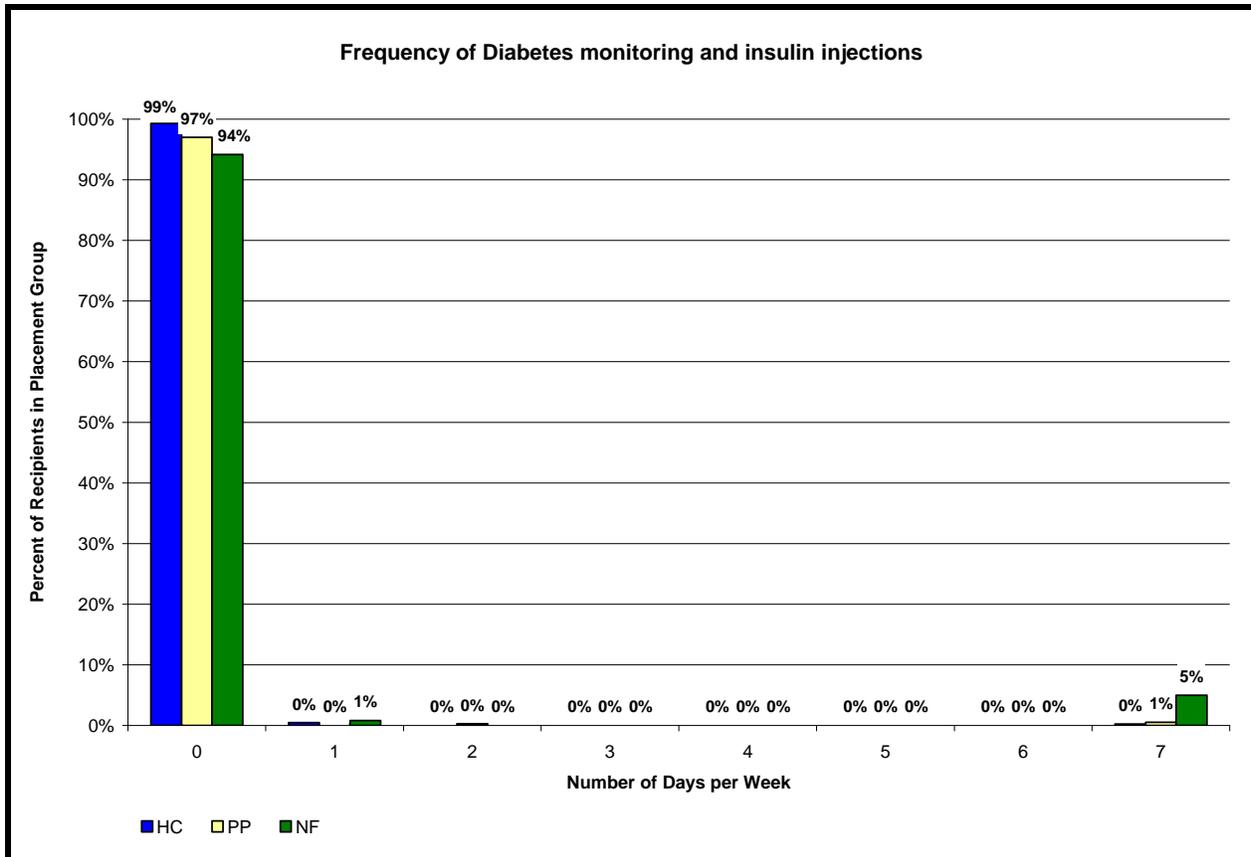


Figure 64. Frequency of Diabetes Monitoring and Insulin Injections

The need for skilled diabetes monitoring and insulin injections was greatest in the Nursing Facility group (6%) followed by the PASSPORT group (3%) and the Home Care group (1%).

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.11. Nursing

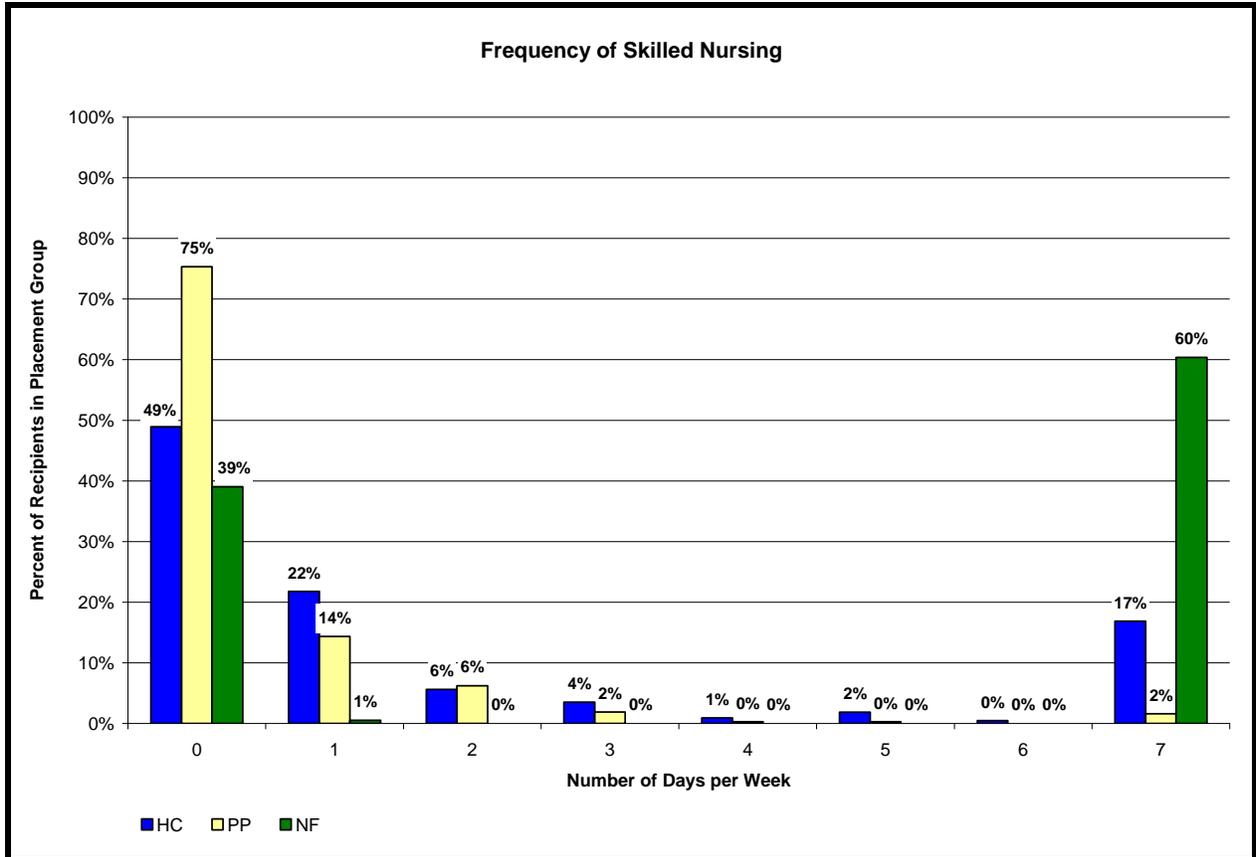


Figure 65. Frequency of Skilled Nursing

Daily skilled nursing was required by 60% of the Nursing Facility group, 17% of the Home Care group, and 2% of the PASSPORT group. Less than half of the Home Care and Nursing Facility groups did not require any skilled nursing services, but 75% of the PASSPORT group did not require any.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.12. Other Skilled Services

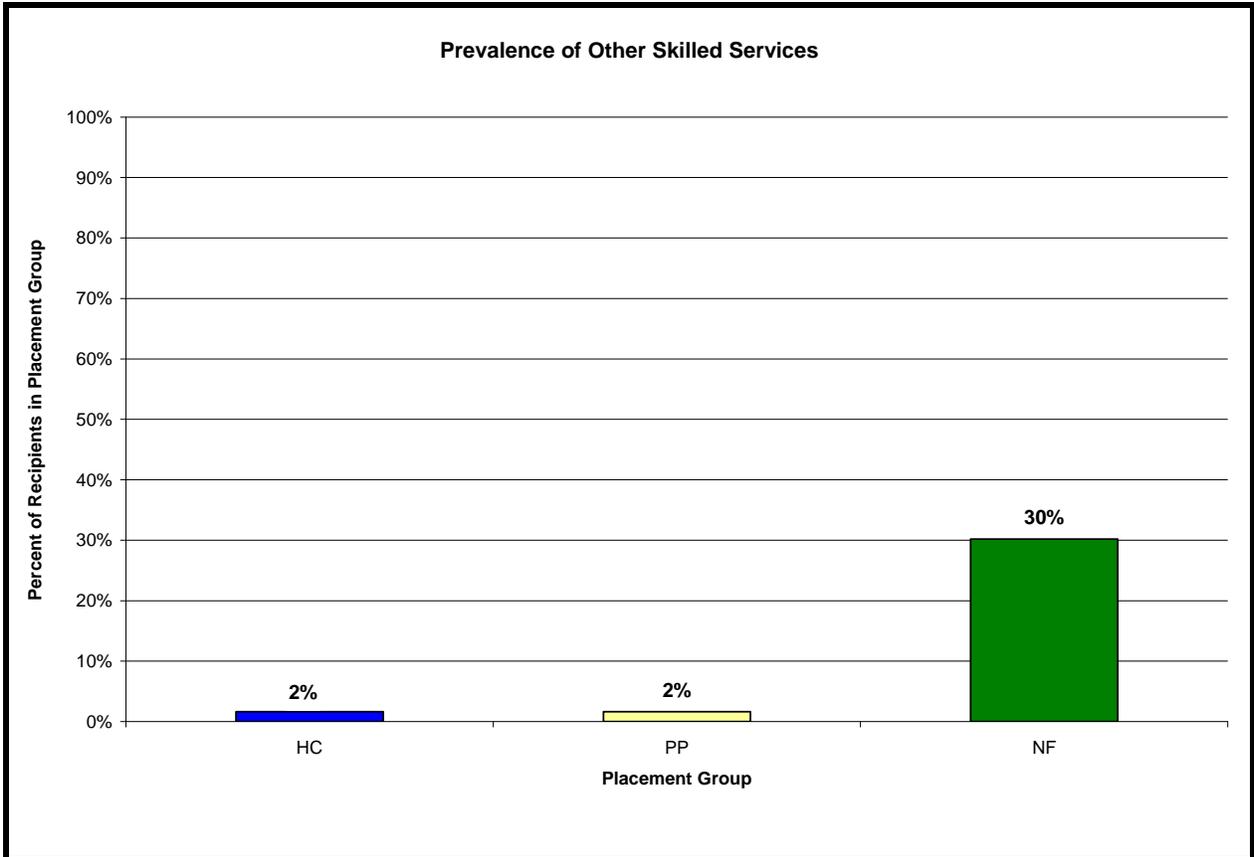


Figure 66. Frequency of Other Skilled Services

Thirty percent of the Nursing Facility group required other skilled services that were not specifically listed above, as compared to 2% of both the Home Care and PASSPORT groups. These services include ostomy care, intravenous medications, ADL skills training, case management and counseling.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.23.13. Skilled Services for Skilled and Intermediate Levels of Care

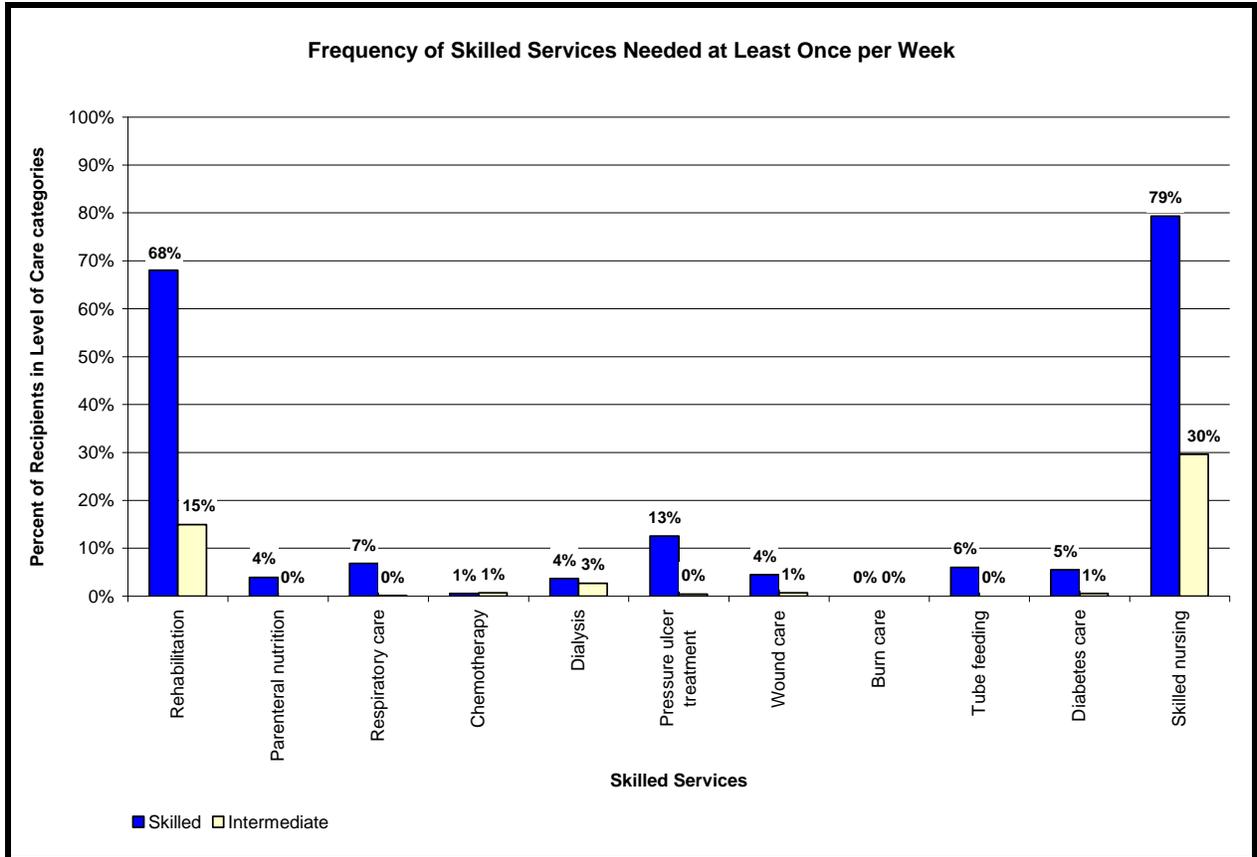


Figure 67. Frequency of Skilled Services Needed at Least One Day per Week

For all the types of skilled services reviewed, consumers with assigned skilled levels of care were more likely to need such services at least once a week than those consumers with assigned intermediate levels of care. The greatest differences occurred with rehabilitation and skilled nursing care. There was also a double-digit difference with pressure ulcer treatments.

5.24. Rehabilitation Potential

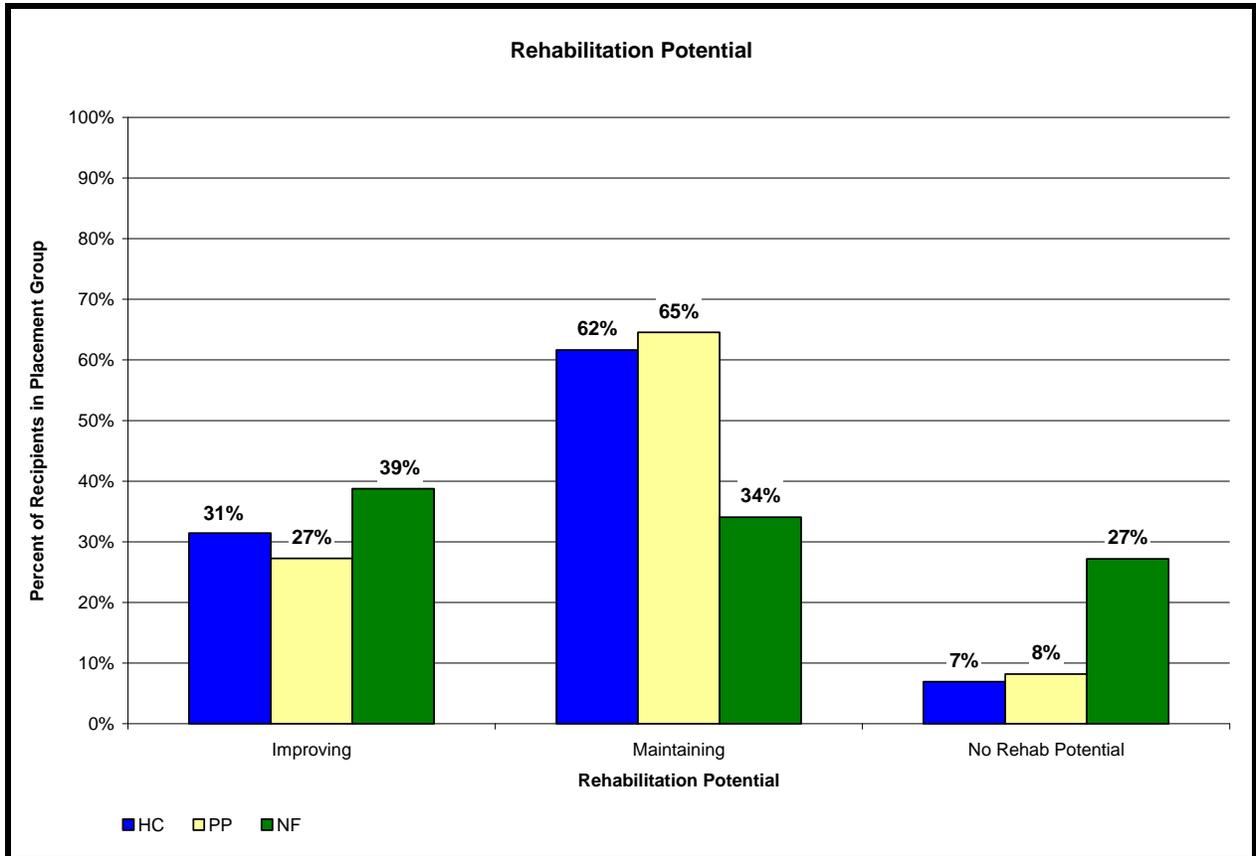


Figure 68. Rehabilitation Potential

For those that required some type of skilled service, most had the potential to improve or at least maintain. The Nursing Facility group had the highest proportion of consumers with no rehab potential at 27%, followed by the PASSPORT group at 8% and the Home Care at 7%.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.25. Medications

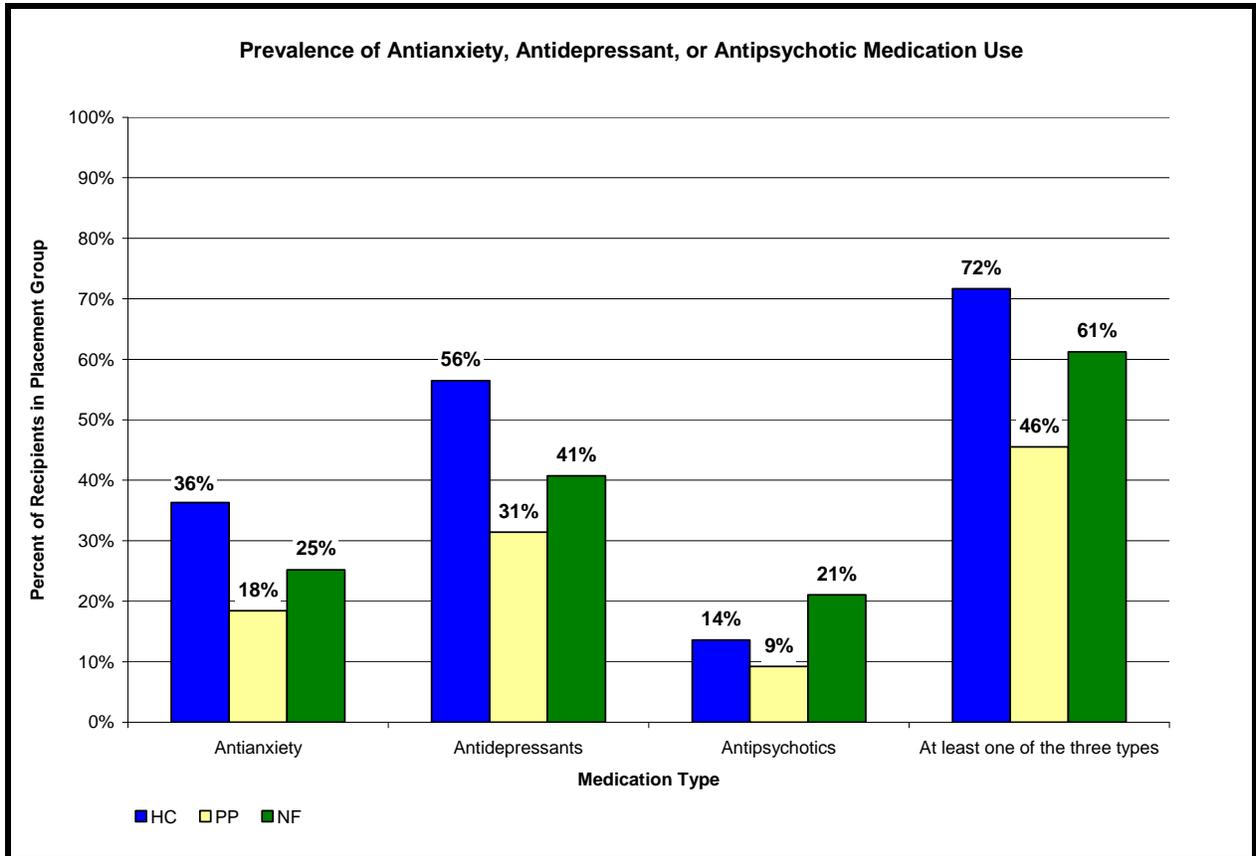


Figure 69. Prevalence of Antianxiety, Antidepressant, or Antipsychotic Medication Use

Antianxiety and antidepressant medication use was highest in the Home Care group, while antipsychotics were more common in the Nursing Facility group. Overall, 72% of the Home Care group had at least one of the 3 types of selected medications, as compared to 61% of the Nursing Facility group and 46% of the PASSPORT group. The list of medications by type is in Appendix D.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.26. Living Arrangements

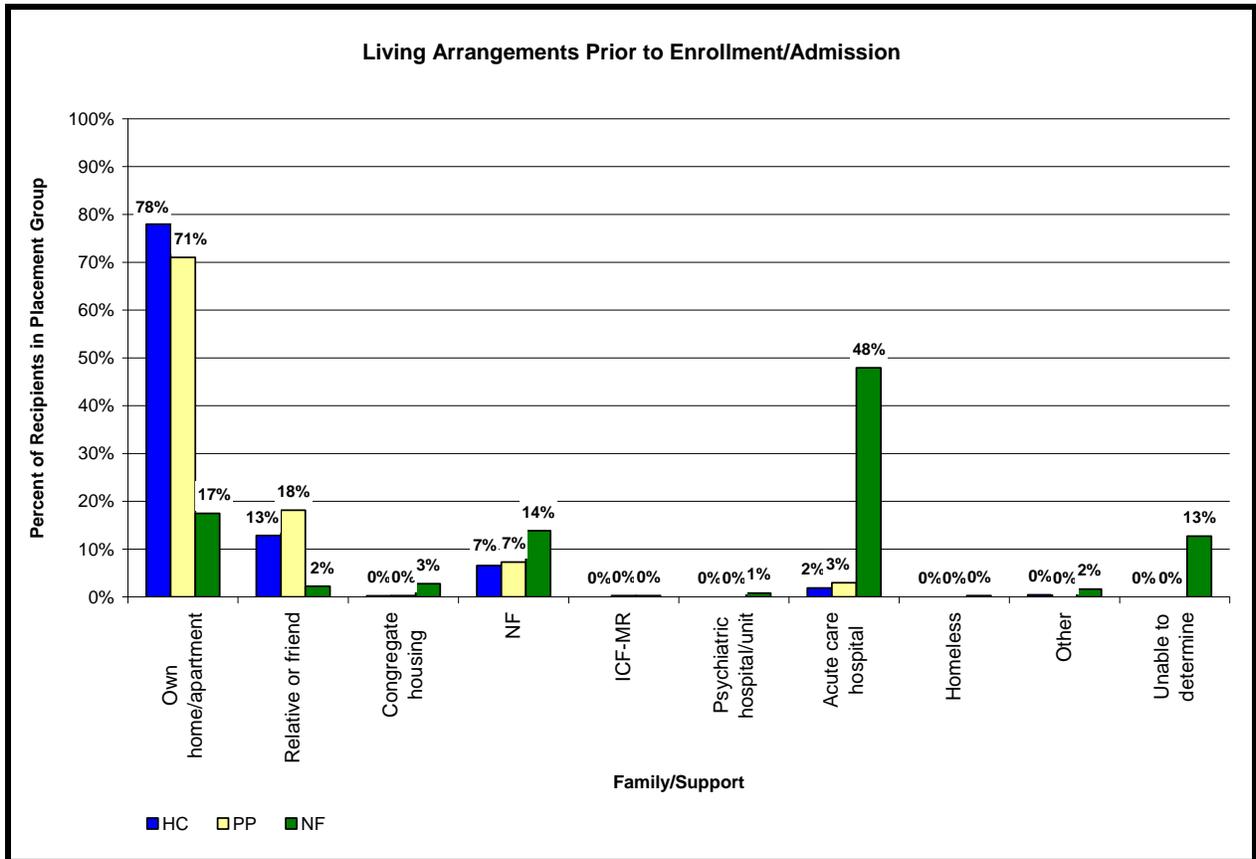


Figure 70. Living Arrangements Prior to Enrollment/Admission

The majority of the waiver program groups lived in their own home or apartment prior to their enrollment in the program, whereas the most common prior living arrangement for the Nursing Facility group was an acute care hospital.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.27. Family/Support Composition

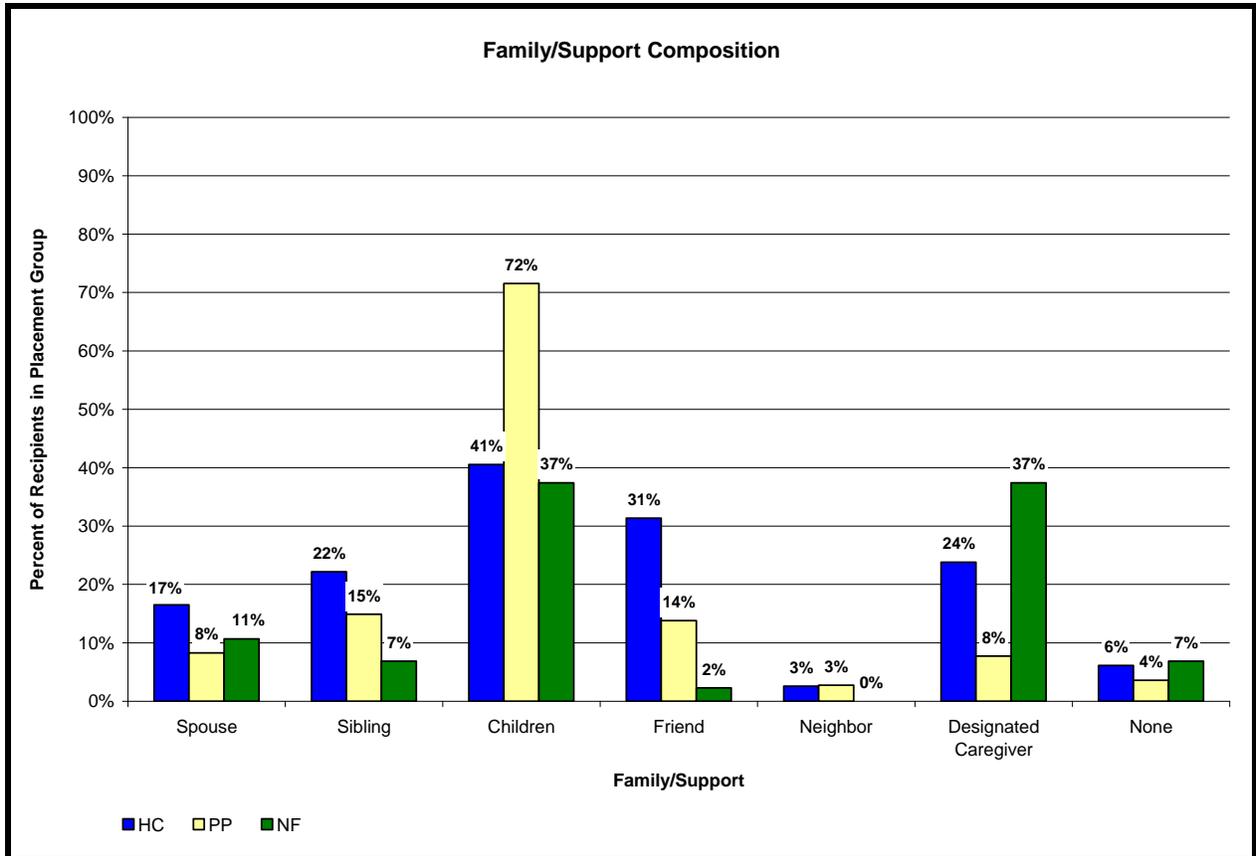


Figure 71. Family/Support Composition

Family/support composition prior to placement into the waiver program was documented in 99% of the Home Care group, 98% of the PASSPORT group, and only 36% in the Nursing Facility group. Of those with such documentation, the Home Care group was most likely to have a spouse, a sibling, or a friend for support. The PASSPORT group was most likely to have children for support. The Nursing Facility group was most likely to have a designated caregiver or no support.

Source: Level of Care Assessment, Level of Care Determination Worksheet and Data Collection Tool, Comprehensive Assessment/Referral Evaluation Tool, Minimum Data Set-Version 2.0, Pre-Admission Screening /Resident Review, and Program Eligibility Assessment Tool and Related Worksheet

5.28. History of Hospital Admissions

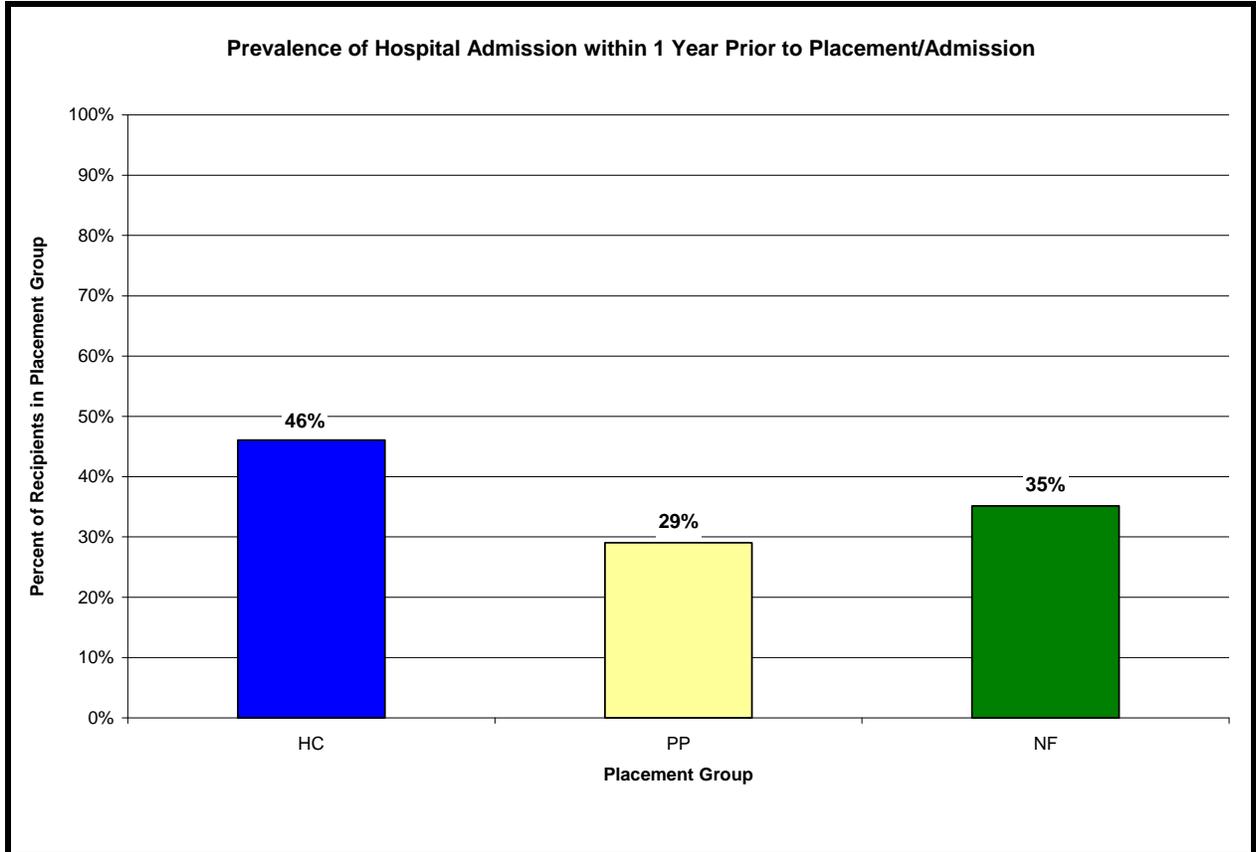


Figure 72. Prevalence of Hospital Admission within 1 Year Prior to Placement/Admission

The Home Care group had the highest proportion of consumers with a hospital admission within the year prior to their enrollment in the program. The Nursing Facility group had the next highest proportion at 35%, and the PASSPORT group had 29%. The Nursing Facility proportion is lower than expected given the living arrangement results, but this indicator only measures prior hospital admissions that were paid by Ohio Medicaid. It is possible that more Nursing Facility consumers had prior hospital admissions that were paid by another insurance program.

Source: Hospital claims data

5.29. History of Home Care

5.29.1. Home Nursing Care

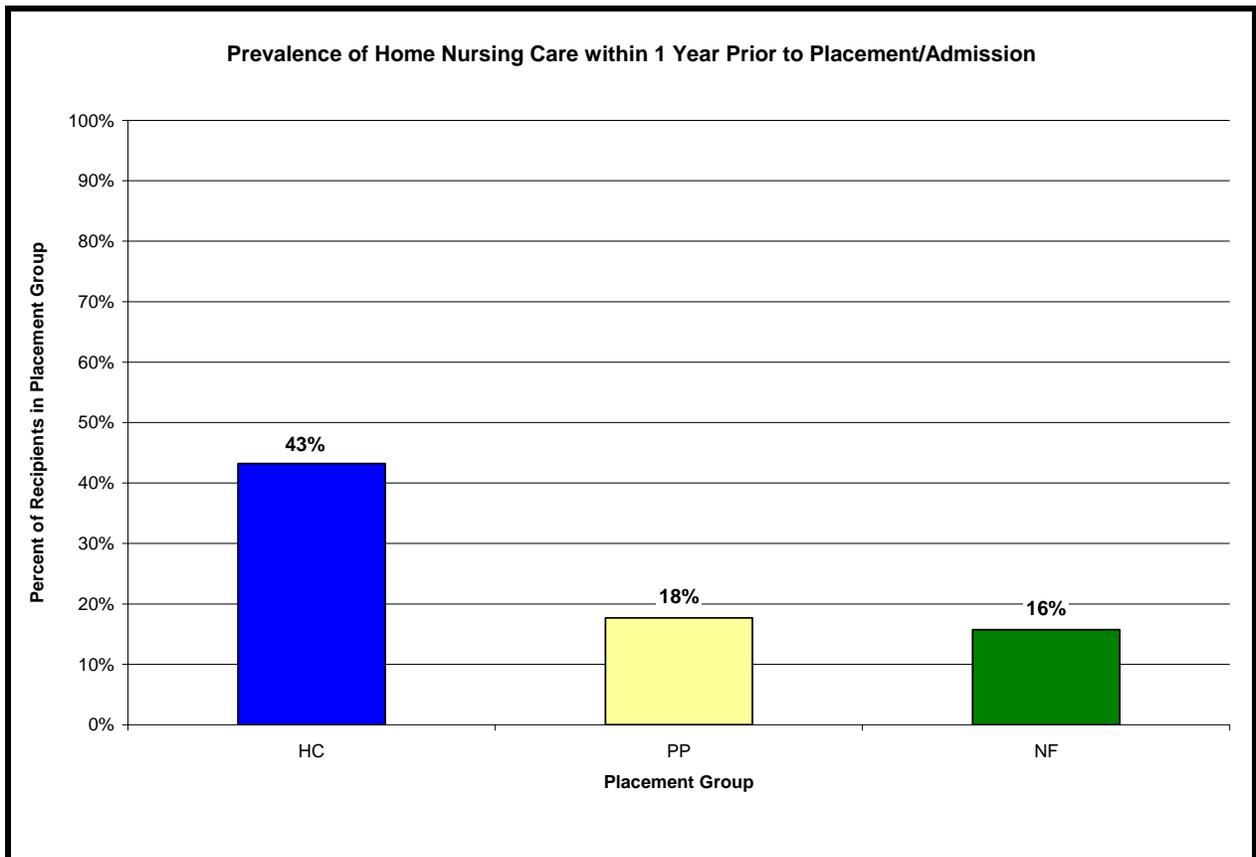


Figure 73. Prevalence of Home Nursing Care within 1 Year Prior to Placement/Admission

The Home Care group had the highest proportion of consumers who had received home nursing care within the year prior to their current waiver program enrollment. For those in this group who received home nursing care, the minimum number of units received was 2, the maximum was 866, the median was 16, and the mean was 44.

The PASSPORT and Nursing Facility proportions were very similar at 18% and 16%, respectively. For those in the PASSPORT group who received home nursing care, the minimum number of units received was 1, the maximum number was 268, the median was 17, and the mean was 32. For the Nursing Facility group, the minimum number was 2, the maximum was 224, the median was 24, and the mean was 40.

Source: Home nursing care was identified through professional claims data using procedure codes T1000, T1002, T1003, and Z8001. Each unit associated with these procedure codes are for up to 5 minutes of care.

5.29.2. Home Personal Care

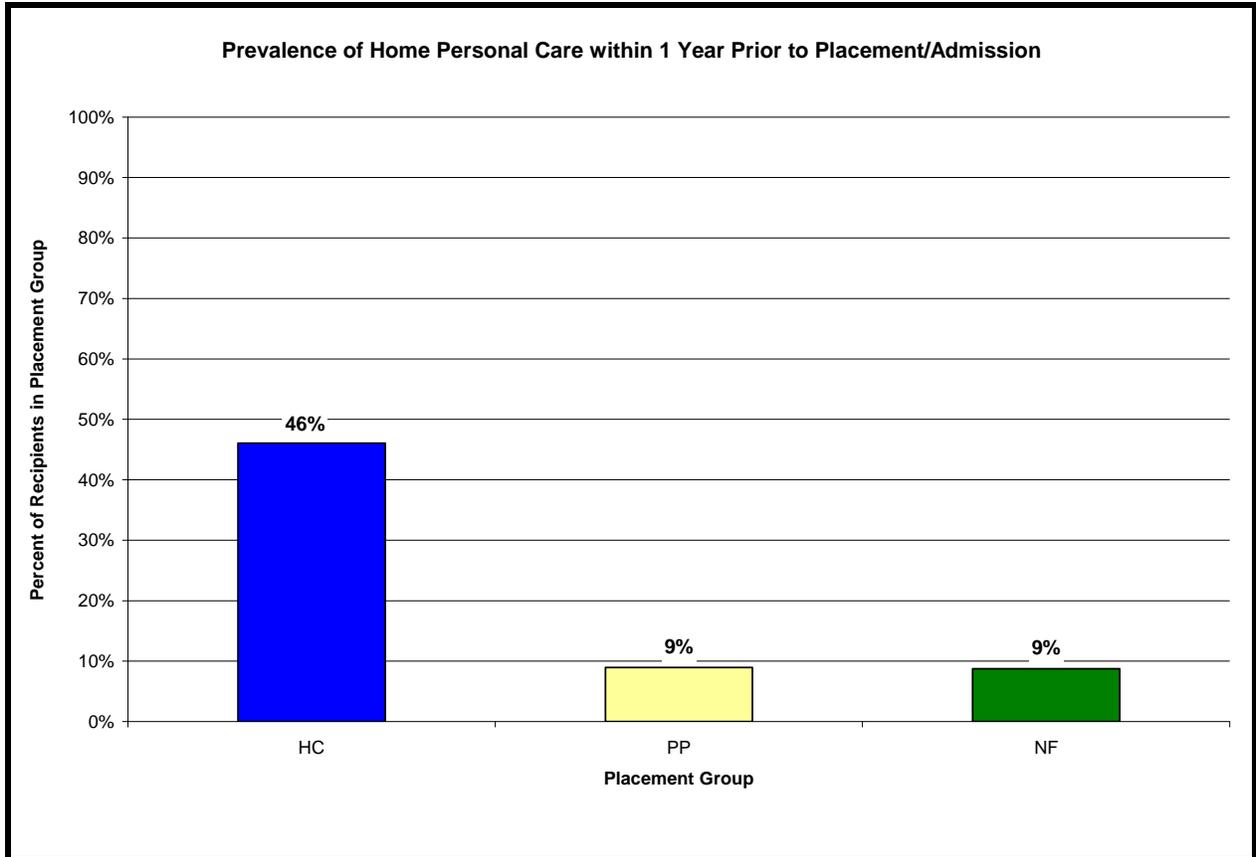


Figure 74. Prevalence of Home Personal Care within 1 Year Prior to Placement/Admission

The Home Care group had the highest proportion of consumers who had received home personal care within the year prior to their current waiver program enrollment. For those in this group who received home personal care, the minimum number of units received was 32, the maximum was 2,664, the median was 192, and the mean was 286.

The PASSPORT and Nursing Facility proportions were identical at 9%. For those in the PASSPORT group who received home personal care, the minimum number of units received was 12, the maximum number was 478, the median was 192, and the mean was 182. For the Nursing Facility group, the minimum number was 1, the maximum was 1,228, the median was 112, and the mean was 302.

Source: Home personal care was identified through professional claims data using procedure codes T1019, S5125, and Z8002. Each unit associated with these procedure codes are for up to 15 minutes of care.

5.30. History of Waiver Enrollment

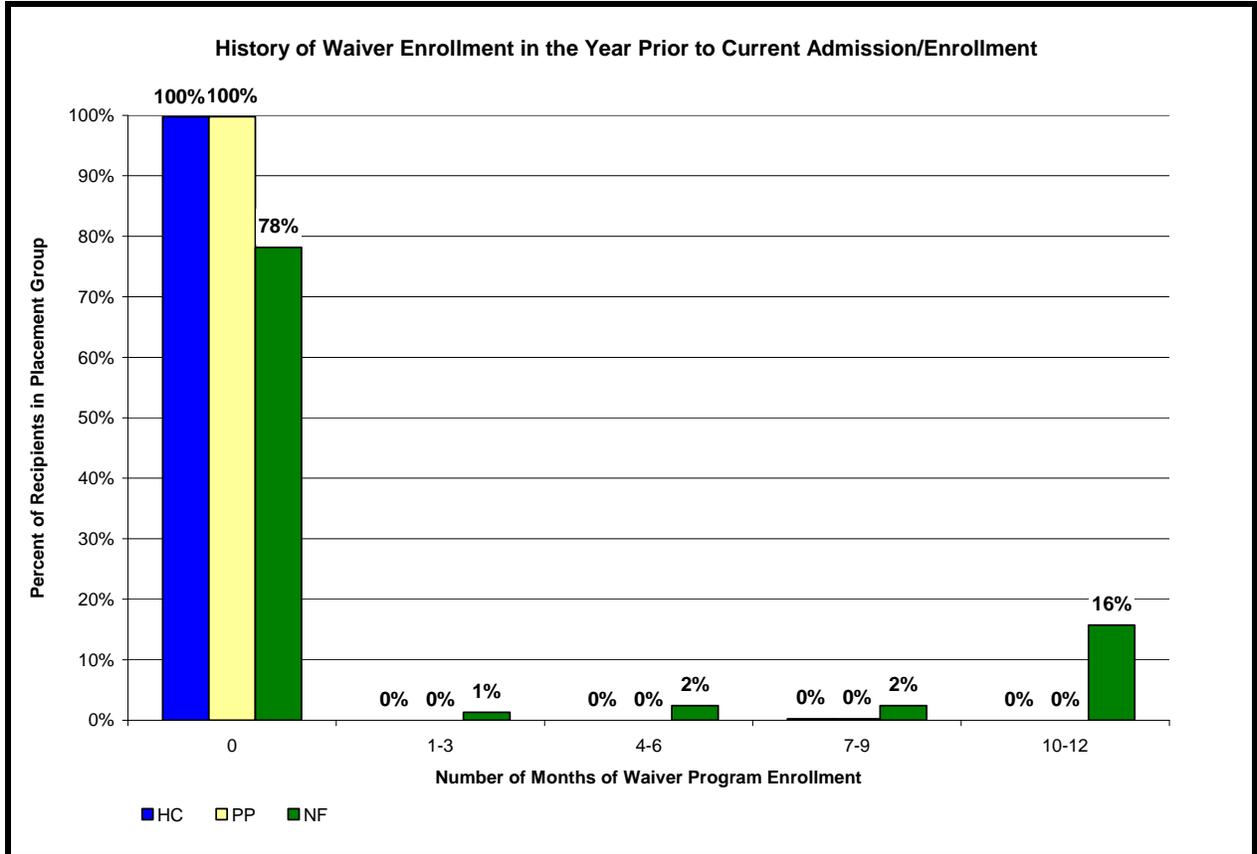


Figure 75. History of Waiver Enrollment in the Year Prior to Current Admission/Enrollment

The overwhelming majority of consumers in all 3 groups did not have a history of waiver program enrollment in the year prior to their current admission/enrollment. One consumer in the Home Care group and one consumer in the PASSPORT group had a history of prior waiver enrollment (7 and 8 months, respectively). Twenty-two percent of the Nursing Facility group had a history of waiver enrollment, the majority of which (11%) were enrolled for the entire 12 months prior to their nursing facility admission.

Source: Recipient Master File

5.31. Precipitating Factors[†]

5.31.1. Loss of Informal Caregiver/Supports

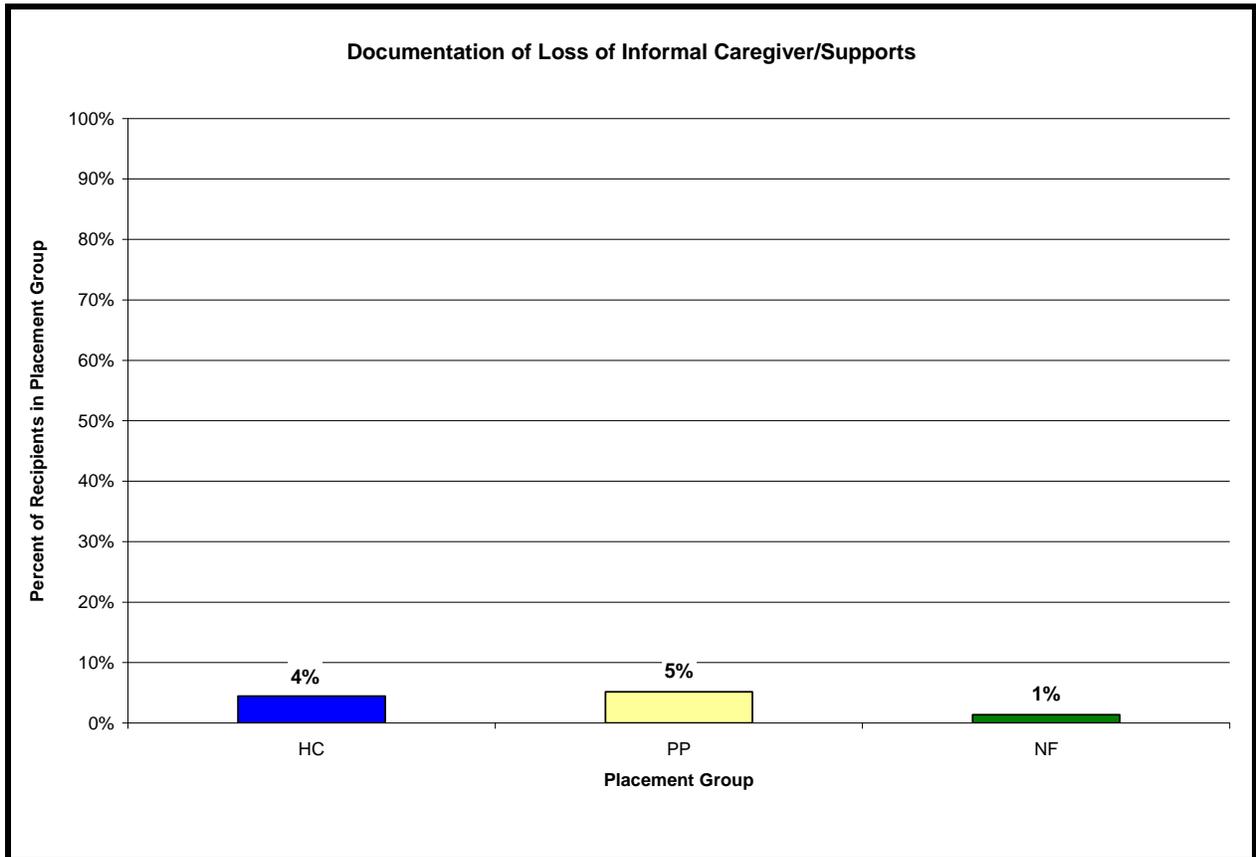


Figure 76. Documentation of Loss of Informal Caregiver/Supports

Five percent of the PASSPORT group had documentation of loss of informal caregiver/supports, followed by 4% of the Home Care group and 1% of the Nursing Facility group.

[†] In an effort to explore reasons why consumers were admitted into the three different programs, seven factors that may have contributed to the admissions/enrollments into the specific programs were chosen for data collection. These factors are not usually listed on assessment forms so the data was collected from medical record/case management descriptive documentation.

5.31.2. Emergency Mental Health Services

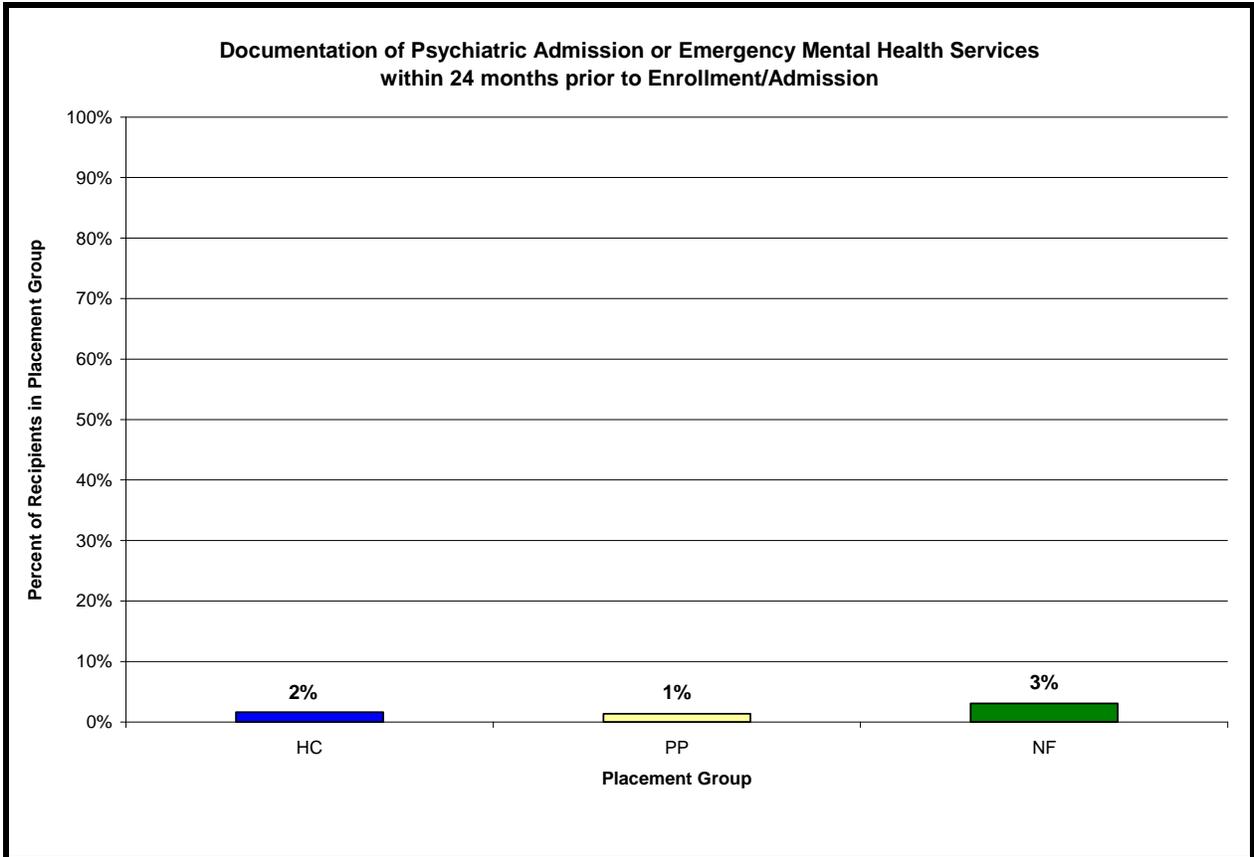


Figure 77. Documentation of Psychiatric Admission or Emergency Mental Health Services within 24 Months Prior to Enrollment/Admission

No more than 3% in any of the 3 groups had documentation of a psychiatric admission or emergency mental health services within 24 months prior to program admission or nursing facility enrollment.

5.31.3. Change in Psychiatric Symptoms

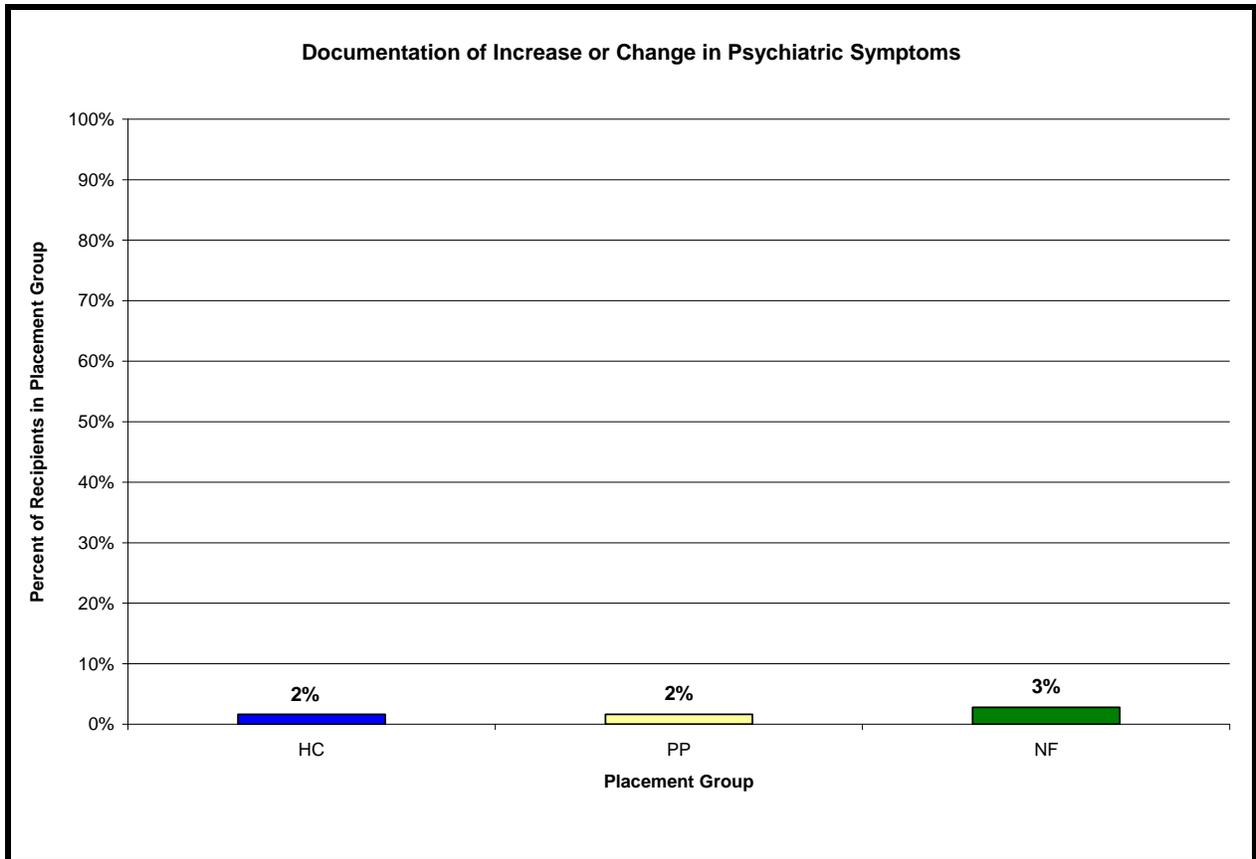


Figure 78. Documentation of Increase or Change in Psychiatric Symptoms

Three percent of the Nursing Facility group had documentation of an increase or change in psychiatric symptoms, followed by 2% of both the Home Care and PASSPORT groups.

5.31.4. Change in Physical Function

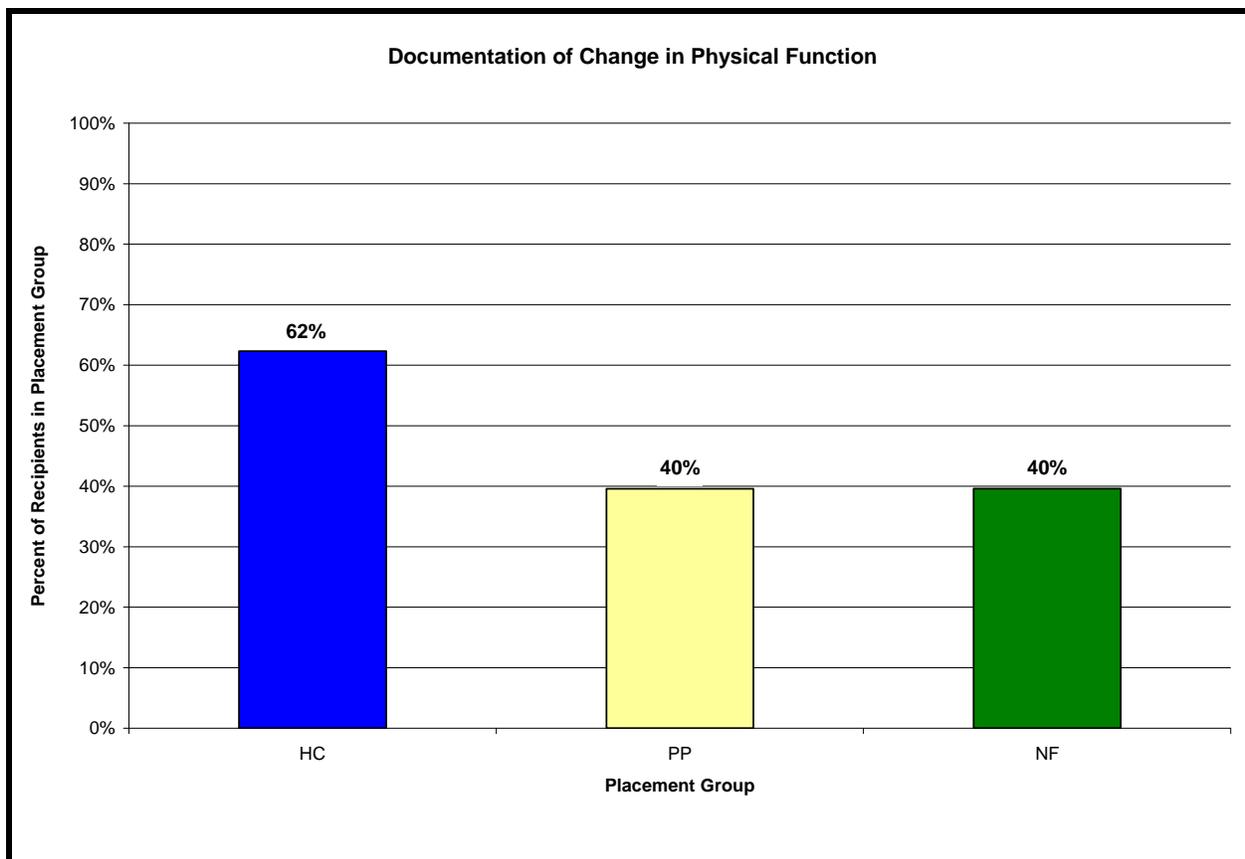


Figure 79. Documentation of Change in Physical Function

Sixty-two percent of the Home Care group had documentation of a change in physical function, followed by 40% of both the PASSPORT and Nursing Facility groups.

5.31.5. Change in Cognitive Function

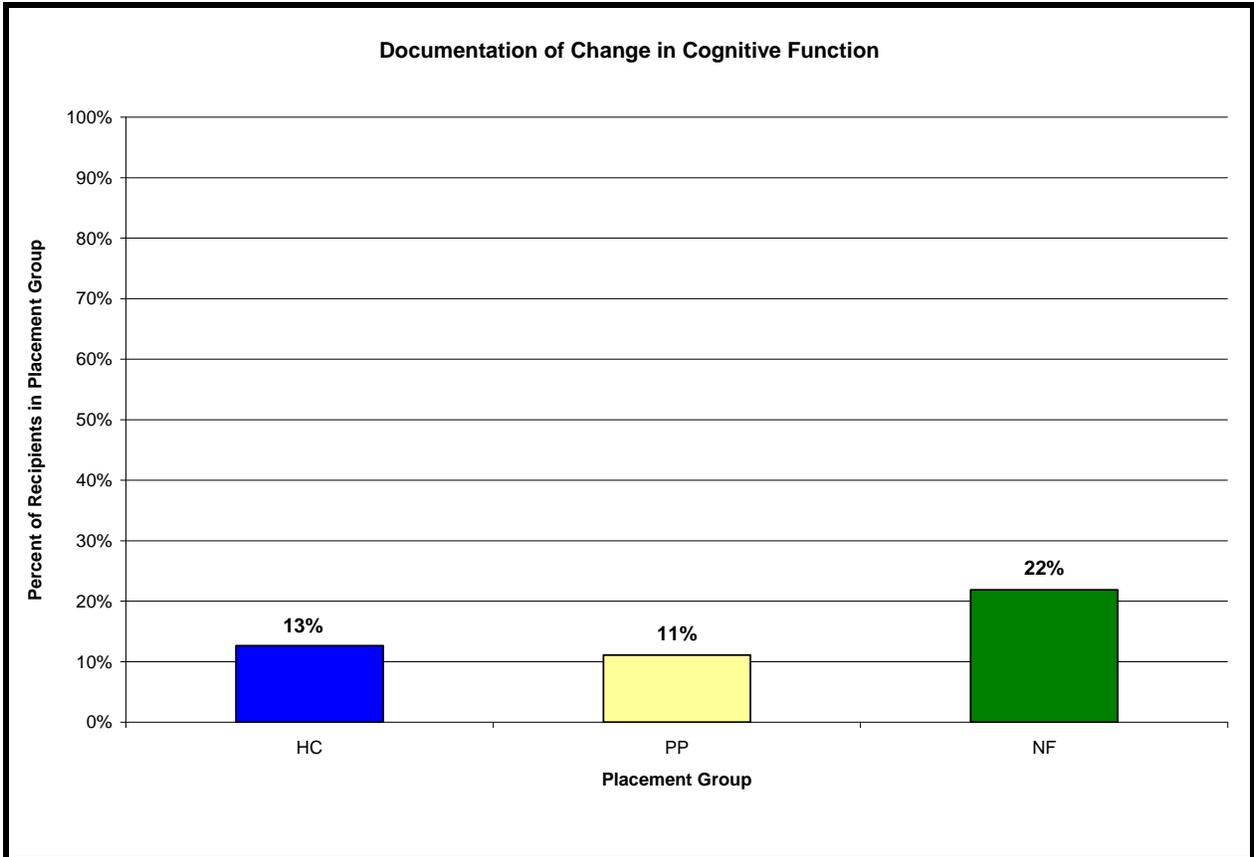


Figure 80. Documentation of Change in Cognitive Function

Twenty-two percent of the Nursing Facility group had documentation of a change in cognitive function, followed by 13% of the Home Care group and 11% of the PASSPORT group.

5.31.6. Environmental Issues

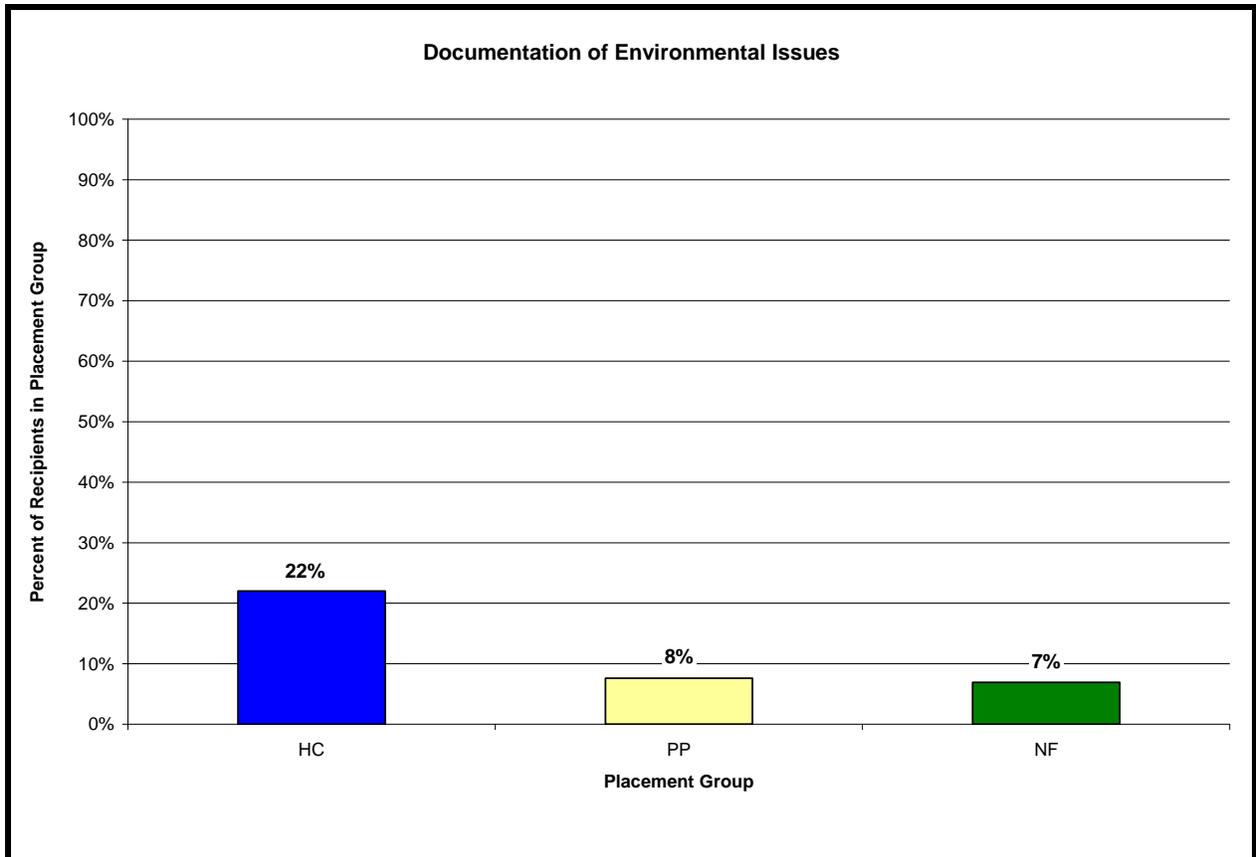


Figure 81. Documentation of Environmental Issues

Twenty-two percent of the Home Care group had documentation of environmental issues, followed by 8% of the PASSPORT group and 7% of the Nursing Facility group.

5.31.7. Inability to Obtain Appropriate Providers

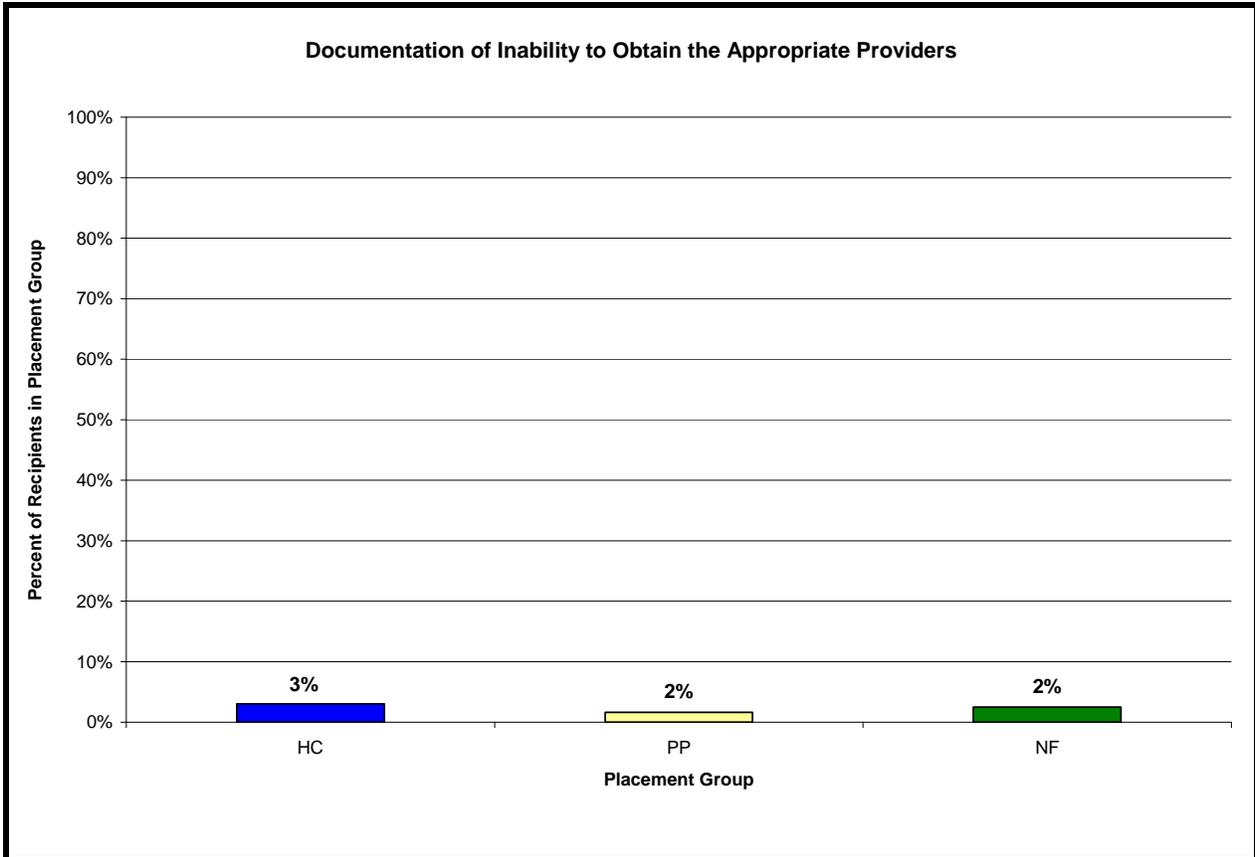


Figure 82. Documentation of Inability to Obtain the Appropriate Providers

Three percent of the Home Care group had documentation of an inability to obtain appropriate providers, followed by 2% of both the PASSPORT and Nursing Facility groups.

5.32. Factors Related to Enrollment/Admission

Logistic regression was used to identify consumer characteristics at the time of enrollment/admission that were significantly related to the probability of a consumer being enrolled in a waiver program. Separate models were constructed for consumers age 40-59 and age 60 or older, since these are the eligible age ranges for the Ohio Home Care and PASSPORT waiver programs, respectively. This stratification controls for the known confounding variable of age, and eliminates the need for age interaction terms in the model, which in turn simplifies the interpretation of the results. The results are expressed in Figures 82 and 83 as odds ratios for each of the significant factors. Each estimated odds ratio is the odds of a consumer with the characteristic being enrolled in a waiver program, divided by the same odds for consumer without the characteristic.

The odds of a consumer being enrolled in a waiver program are the probability that the consumer will be enrolled in a waiver program divided by the probability that the consumer will be admitted to a nursing facility. Therefore, odds ratios greater than one indicate that consumers with a given characteristic are more likely to be enrolled in a waiver program than those without the characteristic. Conversely, odds ratios less than one indicate that consumers with a given characteristic are more likely to be admitted to a nursing facility than those without the characteristic. A brief interpretation of each odds ratio follows the result charts.

5.32.1. Home Care Enrollment versus Nursing Facility Admission

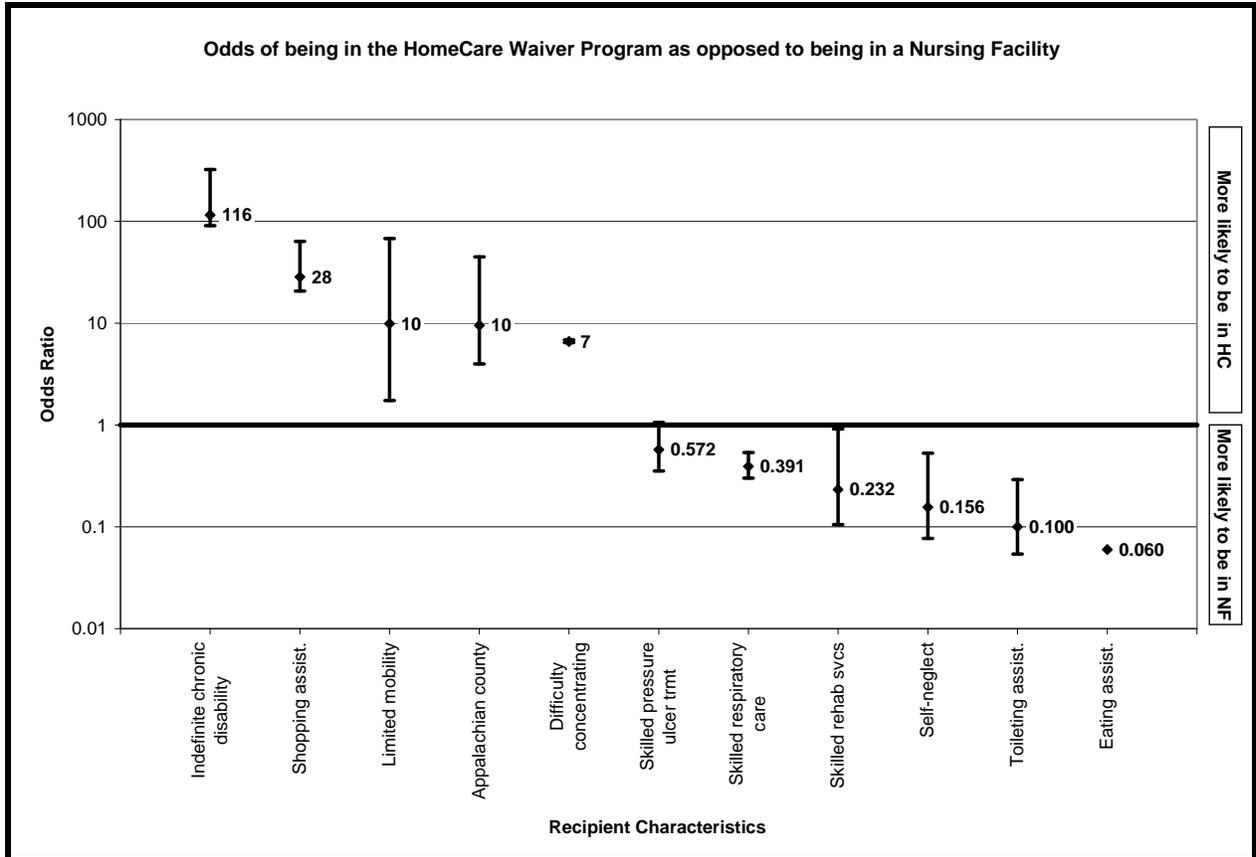


Figure 83. Odds of Being in the HomeCare Waiver Program as Opposed to Being in a Nursing Facility

Summary model interpretation for consumers age 40 through 59 years:

- Consumers with a chronic disability that was expected to last indefinitely were more likely to be enrolled in a waiver program than consumers without such a disability
- Consumers who needed hands on assistance with shopping were more likely to be enrolled in a waiver program than consumers who needed no assistance or only supervision with shopping
- Consumers with a chronic disability that resulted in substantial limitation in mobility were more likely to be enrolled in a waiver program than consumers without such limitations
- Consumers who lived in an Appalachian county were more likely to be enrolled in a waiver program than consumers outside of the Appalachian region
- Consumers who exhibited difficulty concentrating were more likely to be enrolled in a waiver program than consumers who did not exhibit such difficulty
- Consumers who required skilled treatment for pressure ulcers were more likely to be admitted to a nursing facility than consumers who did not receive such treatment
- Consumers who required skilled respiratory care were more likely to be admitted to a nursing facility than consumers who did not receive such care

- Consumers who exhibited neglect to self were more likely to be admitted to a nursing facility than consumers who did not exhibit such behavior
- Consumers who required supervision or hands on assistance with toileting were more likely to be admitted to a nursing facility than consumers who did not require any toileting assistance
- Consumers who required supervision or hands on assistance with eating were more likely to be admitted to a nursing facility than consumers who did not require any eating assistance

5.32.2. PASSPORT Enrollment versus Nursing Facility Admission

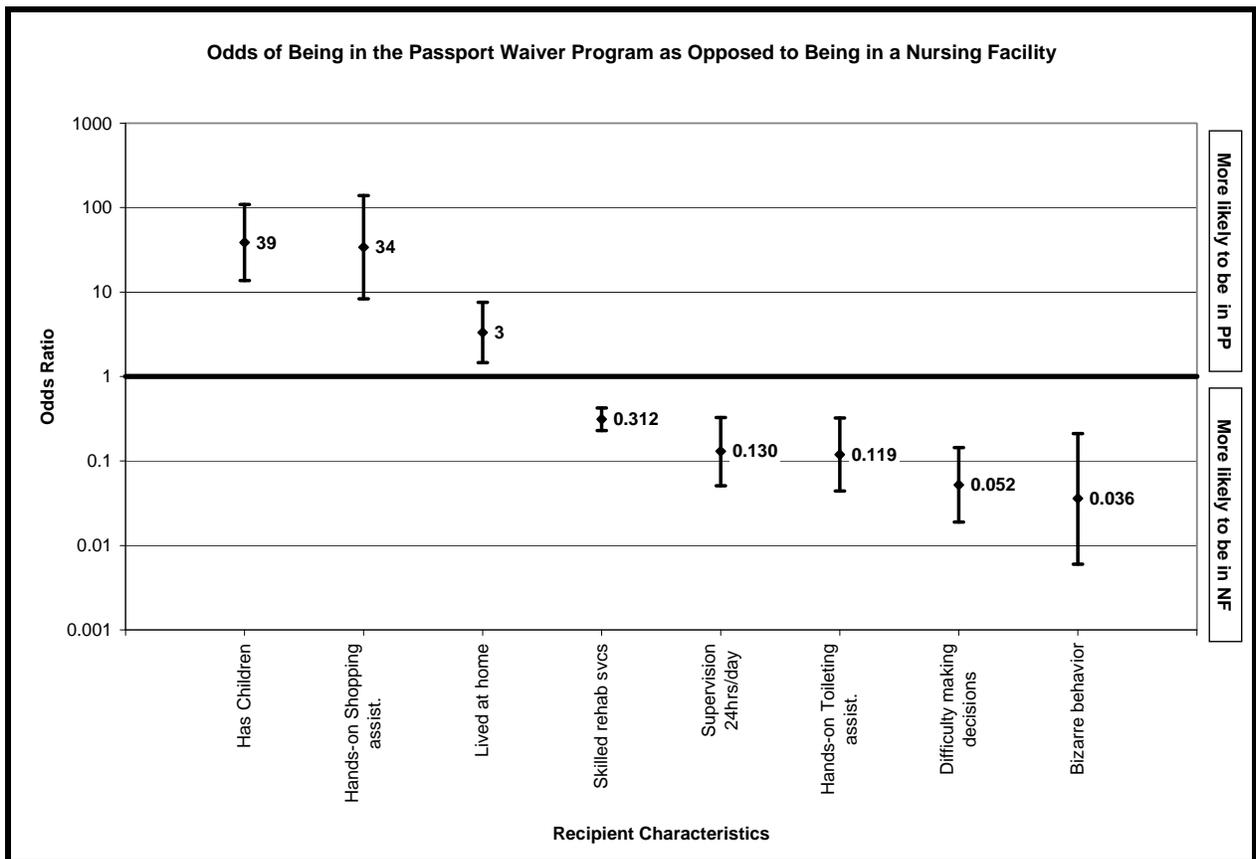


Figure 84. Odds of Being in the PASSPORT Waiver Program as Opposed to Being in a Nursing Facility

Summary model interpretation for consumers age 60 and over:

- Consumers with a family composition that included children were more likely to be enrolled in a waiver program than consumers without children
- Consumers who needed hands on assistance with shopping were more likely to be enrolled in a waiver program than consumers who needed no assistance or only supervision with shopping
- Consumers who lived at their own home immediately prior to enrollment/admission were more likely to be enrolled in a waiver program than consumers with other prior living arrangements

- Consumers who required skilled rehabilitation services were more likely to be admitted to a nursing facility than consumers without such services
- Consumers who required supervision 24 hours a day were more likely to be admitted to a nursing facility than consumers who did not need such supervision
- Consumers who required hands on assistance with toileting are more likely to be admitted to a nursing facility than consumers who did not need such assistance
- Consumers who exhibited difficulty making decisions were more likely to be admitted to a nursing facility than consumers who did not exhibit such behavior
- Consumers who exhibited bizarre behavior were more likely to be admitted to a nursing facility than consumers who did not exhibit such behavior

6. Limitations, Discussion, Summary, Recommendations

6.1. Limitations

The *Nursing Facility and Waiver Functional Assessment Study* is a retrospective assessment using claims data and medical chart review from a one-year period. The selection of quality indicators was based on the clinical study group consensus. Using evidence-based results from clinical research, the study demonstrated a direct correlation between the quality indicators and the conclusions. However, due to the observational nature of this study, causal relationships between study variables cannot be inferred.

Documentation errors or lapses, inherent abstractor errors, medical record unavailability, and misidentification of eligible patients all contribute to unavoidable imperfections in a study. Therefore, this study may fail to accurately reflect true rates for the quality indicators.

Medical record documentation for this study came from a variety of sources. Consideration for interpretation of form questions, and expertise and experience of case worker or manager in observing the consumers may affect the study outcomes. Also, interpretations of the questions may be influenced by the criteria that are required to get the consumer into the program of choice.

Additional limitations related to this study include lack of knowledge of previous patient health history and follow up if not identified by a Medicaid claim or medical record documentation. As such, the stability of the family-physician-patient relationships, benefit/risk considerations by prescribing physicians and case managers, the presence of disease management and patient education programs, and the ability of patients to adhere to recommendations or care could not be determined or factored into the results of this study.

6.2. Discussion

It is commonly believed that persons with long-term care needs are too often placed in nursing facilities when they might be better served at a lower level of care (Spector, Reschovsky, & Cohen, 1996). Ohio Medicaid's current long-term system is progressing toward greater flexibility in choosing long-term care options. Identification of long-term care needs provide important information to help determine appropriate options to meet these needs. The Nursing Facility and Waiver Functional Assessment Study provides information on patient demographics, profiles of levels of care criteria and long-term care placement in nursing facilities and waiver programs of PASSPORT and Ohio Home Care.

This study compared all the quality indicators, including patient demographics, level of care profiles, behavior characteristics, skilled care, supervision needs, and precipitating factors for program admissions among the three long-term care programs. As mentioned in Section 3, the population and sample were divided into three separate groups: nursing facilities, PASSPORT and Ohio Home Care Services. The stratified random sampling permitted the results to be generalized to all Ohio Medicaid long-term care patients who met the inclusions of either group.

6.2.1. Patient Profiles

Patient profiles provided a better understanding of the consumers in the three long-term care programs: Ohio Home Care Services, PASSPORT, and nursing facilities. The demographics in this study were based on the study population of each of the Ohio Medicaid programs of enrollment. The study population of Home Care Services program included consumers 40-59 year olds and PASSPORT waiver program for 60 year olds and over do not overlap in age. As expected, the majority, 64%, of the Home Care enrollees were between 50 and 59 years of age. The majority of the PASSPORT enrollees were evenly distributed between ages 60 and 79. The ages of the Nursing Facility residents were more widely distributed between 50 and 89 years old. According to The American Health Care Association (2007), in America, the average age on admission to a nursing facility is 79 and almost 50% are over 85 years old. Ohio's Medicaid Nursing facility population appears to be somewhat younger at an average age of 68 and 18% over 85 years old.

The gender distribution of the Home Care and Nursing Facility groups generally reflected the overall Ohio Medicaid population of 61% females (Ohio Medicaid Report, 2007). However the PASSPORT group had a higher proportion of females (79%). The race distribution reflected the Ohio Medicaid population and proportion for all three groups were similar.

Marital status was assessed and varied somewhat per group. The most common marital status in the Home Care group was *divorced* with 40%; the most common in the PASSPORT and Nursing Facility groups was *widowed* with 46% and 34% respectively.

The county types of residence were evaluated and the distribution was similar in all three groups. As expected, due to larger populations, the Metro counties had the highest percent of consumers in the programs; 49% of the Home Care consumers, 57% of the PASSPORT consumers, and 61% of the Nursing Facility consumers. A list of the counties and types are in Appendix A.

Although overall the geographic distribution for all three groups were similar, the PASSPORT group had a higher proportion of consumers in the southwest (32%) and the Home Care Group had a higher proportion in the southeast (17%). A list of the counties and regions are in Appendix B.

Previous waiver program placement during the month preceding admission was observed, but none of the Home Care and PASSPORT consumers had any previous enrollment into waiver programs. Only 17% of the Nursing Facility group previously had been enrolled in PASSPORT, 1% in the Home Care group, and 1% in Individual Options.

Levels of care for each of the three groups were determined by the algorithm as based on abstracted data elements developed by the Ohio Department of Job and Family Services, as described on page 9. There seems to be significant difference in the levels of care between the Nursing Facility group and the waiver programs. The majority of consumers in the waiver program groups had intermediate levels of care, Home Care-72%, and PASSPORT-94%. Most of the Nursing Facility consumers (94%) required a skilled level of care.

Diagnoses

Because long-term care is generally provided to the elderly and disabled population, it was expected that the primary and secondary diagnoses on admission to all three programs were chronic diseases. *Diabetes*

Type 2 was the most commonly coded primary diagnosis in the Home Care and Nursing Facility groups and the second most common in the PASSPORT group. *Hypertension* was in the top four of the lists in all of the programs.

Diagnoses of *Mental Disorders* as defined in the ICD-9 Code Book (2007) appeared in at least half of the consumers of each of the three groups; PASSPORT 79%, Home Care Services 68%, and Nursing Facilities 50%. The specific mental disorder diagnoses varied, with *Mental Illness* in 55% of the Home Care group and 31% of the PASSPORT group. *Dementia* was seen in 50% of Nursing Facility group and only 17% of the Home Care group. *Traumatic Brain Syndrome* was not common in any of the three groups, the Nursing Facility group had the highest proportion of 4%, Home Care had 3% and the PASSPORT group had 2%.

Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)

There are level of care requirements for admission to all three programs. Included in the requirements are ADL and IADL impairments. The ADL and IADL impairments often indicate the degree of the consumer's disability.

Over 55% of all three groups needed *hands on* assistance with mobility, bathing and dressing. *Hands on* grooming was required by 74% of the Home Care group and 75% of the Nursing Facility group but only 29% of the PASSPORT group. Over 74% of the Home Care and PASSPORT group did not need help with eating, while only 24% of Nursing Facility group could feed themselves without help.

The daily activity of toileting showed the greatest variations among the groups. The 62% of Home Care group, 69% of the PASSPORT group and only 11% of the Nursing Facility group needed *no assistance* with toileting. Eleven percent of the Nursing Facility consumers required *supervision* while 76% needed *hands on* assistance. Additional analysis revealed that 84% of the Nursing Facility consumers, who did not need any assistance with toileting, were receiving skilled services.

The number of ADL impairments per consumer for the Home Care group averaged 4; the PASSPORT group was slightly lower with 3.5. The Nursing Facility group had the highest number of ADL impairments with an average of 5.4. This information is comparable to the Scripps Study of Long-term Care (2007). Scripps found that 80% of nursing facility patients and 27% of the PASSPORT patients had 4 or more ADL impairments.

The overwhelming majority of all three groups needed *hands on* assistance for all the IADLs: community access, environmental management, shopping, meal preparation, and laundry. The Home Care group had the lowest number of IADL impairments with an average of 4.7, PASSPORT group had an average of 4.8 and the Nursing Facility group had an average of 4.9.

Medication Administration

The consumer's ability to administer his/her own medications was assessed. The Nursing Facility group differed considerably from the Waiver groups. The Waiver program groups were somewhat evenly distributed, 44% of the Home Care group and 36% of the PASSPORT group needed *no assistance*. *Hands on* assistance was needed by 47% of the Home Care group and 40% of the PASSPORT group. Of the Nursing Facility group, only 2% did not need help, while 79% needed *hands on* assistance.

Incontinence

Referring back to the variations among the groups in toileting, it would be expected that there would be the same variation in urinary and fecal incontinence. However, the proportion of incontinence: frequent, occasional, and none, did not seem to vary among the groups. Almost 50% of all three groups did not have urinary incontinence of urine. Over 60% of the groups did not have fecal incontinence.

Chronic Disabilities

Nearly all of the Home Care group (99%), 24% of the PASSPORT group and 27% of the Nursing Facility group had severe, chronic disabilities that resulted in impairment of intellect or adaptive behavior. These were attributed to a condition other than mental illness. For those with a chronic disability, it was not common that the conditions were evident before age 22, however, the disabilities almost always were expected to continue indefinitely.

Behavioral Characteristics

Behavioral characteristics were assessed and documented at the time of admission. Although there were some variations of the distribution of behavioral characteristics, among the three groups, most were only slight variations. For example, the Nursing Facility group had the highest proportion of consumers with disorientation to time (24%), and place (21%). The Home Care group had consumers with disorientation to time (8%), and place (8%) and the PASSPORT group had consumers with disorientation to time (16%) and place (7%).

The most notable differences included the prevalence of difficulty sleeping and inability to make their own decisions. The Home Care group had 52% of consumers who had difficulty sleeping, while the PASSPORT group had 15%, and the Nursing Facility group had 16%. Almost half of the Nursing Facility group (49%) were unable to make their own decisions while only 9% of the Home Care group and 10% of the PASSPORT group were unable to make decisions.

Supervision Needs

Consumer supervision requirements were observed. There was significant variability among the three groups. Only 14% of the Home Care group needed 24 hour supervision, while 84% needed 1 to 23 hours/day supervision and 2% did not need any supervision. Only 13% of the PASSPORT group needed 24 hour supervision, while 58% needed 1 to 23 hour/day supervision and 29% did not have any supervision requirements. Of the Nursing Facility group, 61% needed 24 hour supervision, 37% needed 1 to 23 hour supervision and only 1% did not require any supervision.

Skilled Care

Skilled services were most prevalent in the Nursing Facility group. Of the Nursing Facility group, 69% required physical therapy rehabilitation services at least one day per week. Only 21% of the Home Care group and 9% of the PASSPORT group required any physical therapy rehabilitation services. The Nursing Facility group also required more of the following skilled services than the waiver groups: parenteral nutrition (4%), respiratory care (7%), status ulcer treatment (12%), surgical wound care (4%), tube feedings (5%), insulin injections and diabetic monitoring (6%), daily skilled nursing (60%), and

other skilled services (30%). As expected, consumers with an assigned skilled level of care were much more likely to receive skilled services than those with an assigned intermediate level of care.

For those requiring skilled services, the potential to improve or at least maintain with the appropriate therapies/treatments was observed. The Nursing Facility group had the highest proportion of consumers with no rehabilitation potential (27%), followed by the PASSPORT group (8%) and the Home Care group (7%).

Medications

The prevalence of categories of psychotropic medications at the time of admission was observed. The categories included anti anxiety, antidepressants and antipsychotics. The prevalence of each category varied with antidepressants being used more than the other two categories. Antidepressants were used by 56% of the Home Care group, 31% of the PASSPORT group and 41% of the Nursing facility group. Overall, 72% of the Home Care group was taking at least one of the three categories of medications, followed by Nursing Facility group (61%) and the PASSPORT group (46%).

Living Arrangements

Living arrangements prior to admission to the long-term care programs were compared. The majority of the waiver program group consumers lived in their own home or apartment prior to their admission to the programs. Almost half of Nursing Facility group (48%) was admitted to a nursing facility from an acute care hospital. Of the 52% Nursing Facility consumers who were admitted directly from an acute care hospital, 81% required skilled services.

Family/Support Composition

Family/Support composition was documented in 99% of the Home Care group, 98% of the PASSPORT group and only 36% of the Nursing Facility group. It is interesting to note that the Home Care group was most likely to have a spouse, a sibling or a friend for support, while the PASSPORT group was most likely to have children for support. The Nursing Facility group was more likely to have a designated caregiver or no support. Observation of the distribution of available support may suggest that this is more influenced by the age groups of the consumers than the programs.

History of Hospital Admissions

The results of the indicator of prevalence of hospital admissions within one year prior to placement/admission, may be misleading. From the analysis it appears that the Home Care group had the highest proportion of consumers with a hospital admission (46%) and Nursing Facility group had 35% followed by the PASSPORT group with 29%. However, it is possible that the Nursing Facility consumers are dual-eligible and the hospitalizations were paid by Medicare or some other health insurance.

History of Home Nursing, Home Personal Care, and Waiver Enrollment

The Home Care group had the highest proportion of consumers (43%) who had received home nursing care within the year prior to their current Ohio Home Care waiver program enrollment. Only 16% of the

Nursing Facility group and 18% of the PASSPORT group had received home nursing care prior to admission into the programs.

The Home Care group also had the highest proportion of consumers (48%) who received home personal care within the year prior to their current program enrollment. Only 9% each of the PASSPORT and Nursing Facility groups receive home personal care one year prior to their enrollment.

The overwhelming majority of consumers in all three groups did not have a history of waiver program enrollment in the year prior to their current admission/enrollment. Only 22% of the Nursing Facility group had been enrolled in a waiver program. This shows very little indication that the patients are moving from the waiver programs into a nursing facilities as their health declines.

Precipitating Factors

In an effort to explore reasons why consumers are admitted into the three different programs, members of the study group chose seven factors that may contribute to the admissions/enrollments into the specific programs. These factors are not usually listed on forms and so the data was collected through medical record/case management descriptive documentation. Since precipitating factors are not part of the standard documentation requirements that the case workers must fulfill, reliable estimates of the prevalence of these factors cannot be produced.

Only 5% of the PASSPORT group, 4% of the Home Care group and 1% of the Nursing Facility group had documentation of loss of informal caregiver/supports.

No more than 3% in any of the three groups had documentation of a psychiatric admission or emergency mental health services within two years prior to admission/enrollment in the programs.

No more than 3% in any of the three groups had documentation of an increase or change in psychiatric symptoms.

A change in physical function, such as mobility, eating, and continence issues, was documented in 62% of the Home Care group, and 40% of both the PASSPORT and Nursing Facility groups prior to admission/enrollment to the program.

A change in cognitive function, such as memory, decision making and communication problems, was documented in 22% of the Nursing Facility group and 13% of the Home Care group and % of the PASSPORT group prior to admission/enrollment to the program.

Environment issues, such as safety issues, and inability to keep home habitable, were documented prior to admission/enrollment in 22% of the Home Care group, 8% of the PASSPORT group and 7% of the Nursing Facility group.

Inability to obtain appropriate providers was documented in 3% of the Home Care group, and 2% of each of the PASSPORT and Nursing Facility groups.

Factors Related to Enrollment/Admission Models

Logistic regression was used to identify consumer characteristics at the time of enrollment/admission that were significantly related to the probability of a consumer being enrolled in a waiver program. Separate models were constructed for consumers age 40–59 and those age 60 and older since those are the eligible age ranges for the Home Care group and the PASSPORT group respectively. Since there was no overlap in the consumer ages between the waiver groups, the summary model interpretation of the correlation of age and other factors would not be expected to change per waiver program.

The summary model interpretation for the 40 – 59 age group more likely to be enrolled into a waiver program than a nursing facility includes:

- Consumers with chronic disability that was expected to last indefinitely.
- Consumers with hands on assistance with shopping
- Consumers with a chronic disability that resulted in substantial limitation in mobility
- Consumers who lived in an Appalachian county
- Consumers who exhibited difficulty concentrating
- Consumers who did not exhibit neglect to self
- Consumers who did not require any toileting assistance
- Consumers who did not require any eating assistance
- Consumers who did not required skilled treatment for pressure ulcers.
- Consumers who did not receive skilled respiratory care

The summary model interpretation for the 60 and over age group more likely to be enrolled into a waiver program than a nursing facility includes:

- Consumers with a family composition that included children
- Consumers who needed hands on assistance with shopping
- Consumers who lived in their own home immediately prior to enrollment/admission
- Consumers who did not require skilled rehabilitation services
- Consumers who did not require daily 24 hours supervision
- Consumers who did not require hands on assistance with toileting

- Consumers who did not exhibit difficulty making decisions
- Consumers who did not exhibit bizarre behavior

Summary

The focus of the Nursing Facility and Waiver Functional Assessment Study was to assess patient characteristics, levels of care, and long-term care needs and services among consumers residing in nursing facilities, or enrolled in the PASSPORT or the Ohio Home Care Waiver programs. The joint ODJFS/Permedion study group selected the quality indicators that were used to determine if consumer differences in the three long-term care programs exist. The quality indicators included patient demographics, physical, clinical, behavioral, and level of care characteristics, and precipitating events.

With the results of this study, the objectives were met and the research inquiries were answered as follows:

Determine variations and frequencies in physical, clinical and level of care characteristics of consumers receiving nursing facility, PASSPORT and Ohio Home Care Waiver services.

- Results of the patient profiles revealed age appropriate placement into the waiver programs and the average age of the Nursing Facility consumers was somewhat younger than the national average. The most common marital status for the Home Care group was *divorced* and the most common in the PASSPORT and Nursing Facility groups was *widowed*. In the preceding month of admission to the programs, none of the waiver program consumers had any previous waiver enrollment and only 19% of the Nursing Facility group had been in a waiver program. The majority of the waiver program groups lived in their own home or apartment prior to their admission to the program. Almost half of the Nursing Facility group was admitted directly from an acute care hospital.
- Chronic diseases of Diabetes Type 2, Hypertension, and Respiratory Symptoms were common in all three groups. Diagnoses of Behavioral Health Conditions appeared in at least half of the consumers of each of the three groups. Nearly all the Home Care group had severe, chronic disabilities that resulted in impairment of intellect or adaptive behavior that were attributed to a condition other than mental illness. *Hands on* assistance with medication administration was needed by the majority of the Nursing Facility group, while less than half of the waiver program groups needed *hands on* assistance.
- In observing the level of care, over half of all three groups needed *hands on* assistance with mobility, bathing, and dressing. The daily activity of toileting showed the greatest variations among the groups, with the Nursing Facility group needing the most assistance. The number of ADL impairments per consumer for the PASSPORT group averaged 3.5, the Home Care group averaged 4, and the Nursing Facility group averaged 5.4. The overwhelming majority of all three groups needed *hands on* assistance for all IADLs. Skilled services were most prevalent in the Nursing Facility group. However, the Nursing Facility group receiving skilled services, also had the highest proportion of consumers with no rehabilitation potential.

Determine associations of consumer characteristics with placement group through multinomial logistic regression analysis.

- Logistic regression was used to identify consumer characteristics at the time of enrollment/admission that were significantly related to the probability of a consumer being enrolled in a waiver program. Separate models were constructed for consumers age 40 – 59 and those age 60 and older since those are the eligible age ranges for the Home Care group and the PASSPORT group respectively. The summary model interpretation is described on pages 113-115.

Determine what associated factors or events precipitate admissions to nursing facility and long-term care waiver programs through descriptive analysis.

- Precipitating factors that were not part of the standard documentation requirements were observed. Of the seven factors that may have contributed to the admissions/enrollments into specific program, the three that were noteworthy included: a change in physical function, such as mobility, eating, and continence issues; a change in cognitive function, such as memory, decision making and communication problems; and environment issues, such as safety issues and inability to keep home habitable.

Recommendations

One of the primary functions of the “Front Door” for long-term services and supports is to identify options that may meet a consumer’s needs in a way that provides meaningful choice. In order to provide meaningful choice, the criteria for different services and/or benefit packages are a critical element. As the “Front Door Stakeholder Group” examines the existing criteria for accessing institutional and waiver services, many options for reform that could contribute substantially to a balanced delivery system for long-term services and supports will be identified.

The Money Follows the Person/Unified Long-term Care Budget recommendations includes proposals to modify the level of care criteria and operational processes as well as to develop a future tiered model of services. Changes to criteria may need to be linked to benefit design to ensure continuity of services to Ohio’s consumers. Any changes to existing rules and regulations should be data driven to the extent possible and based on analysis of utilization and assessment data. This study provides a firm foundation for such work to begin. The findings support the following recommendations:

Medical record documentation for this study came from a variety of sources. The knowledge of the various forms used to assess the consumers for the different programs, the expertise and experience of case workers, nurses, and managers, and the interpretations of the criteria that are required to place the consumers into the programs of choice could affect placement outcomes. For determination of a consumer’s care needs, eligibility, planning, and monitoring across various agencies and long-term care services, a uniform assessment instrument with common definitions and common criteria may be needed.

In some instances, the multiple assessment forms had conflicting information regarding the consumer. A hierarchy of the forms for data collection purposes was given to the nurse reviewers. The establishment of a quality assurance program with emphasis placed on documenting inter-rater reliability would improve consistency in the assessments. Also, training for personnel conducting consumer assessments would provide more accurate information across long-term care settings.

This study measured the relative frequency of the consumers' levels of care at the beginning of their most recent program placements. Each consumer's level of care was determined based on abstracted data elements according to the Ohio Medicaid algorithm. The assigned levels of care were not collected. It is recommended that further review of the actual level of care assigned to the consumer and the level of care determined by use of the algorithm be compared. This information could be valuable in determining if the algorithm for levels of care is useful in deciding long-term care program placements.

The prevalence of anti anxiety, antidepressant, and antipsychotic medication use was significant. Overall, 72% of the Home Care group had at least one of the three types of selected medications, as compared to 61% of the Nursing Facility group and 46% of the PASSPORT group. There were also variations between the types of medications and programs. Further analysis of the medication categories by consumer age may provide additional understanding of the prescribing of these medications.

By selecting a sample from the relatively short, fixed time period of one year, this study estimated the prevalence of the quality indicators during the study period. In order to more fully explain how the consumers move between the waiver programs and nursing facilities, and how their care needs change over time, a second study would be needed to track a fixed group of consumers over a longer period of time.

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8. Study Group Participation

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9. Glossary

Activities of Daily Living (ADLs) – Personal or self-care performed with or without the use of assistive devices, on a regular basis that enables the individual to meet basic life needs for food, hygiene, and appearance. ADLs include activities of mobility, bathing, grooming, toileting, dressing, and eating as described in the following:

Mobility – The ability to use fine and gross motor skills to reposition or move oneself from place to place, with or without the use of assistive devices.

Bathing – The ability to cleanse one’s body by showering, tub or sponge bath, or any other generally accepted method, and may be performed with or without the use of assistive devices.

Grooming – The ability to perform the tasks associated with oral hygiene, hair care, and nail care.

Toileting – The ability to appropriately eliminate and dispose of bodily waste, with or without the use of assistive devices or appliances. Toileting may include the use of a commode, bedpan, or urinal, the ability to change an absorbent pad, and to appropriately cleanse the perineum; and/or the ability to manage an ostomy or catheter;

Dressing – The ability to put on, fasten, and take off all items of clothing, including the donning and/or removal of prostheses;

Eating – The ability to feed oneself. Eating includes the processes of food preparation, getting food into one’s mouth, chewing, and swallowing, and/or the ability to use and self-manage a feeding tube.

Antianxiety Medication - Drugs that relieve anxiety by slowing down the central nervous system. They have relaxing and calming effects and are the most widely prescribed type of medication for anxiety. They are also prescribed as sleeping pills and muscle relaxants.

Antidepressant Medication – Drugs used to help people who have depression. Most antidepressants work by slowing the removal of certain chemicals from the brain. These chemicals are called neurotransmitters (such as *serotonin* and *norepinephrine*).

Antipsychotic Medication – Drugs that are effective in treating certain symptoms of schizophrenia, particularly hallucinations and delusions. Antipsychotics are broadly divided into two groups, the typical or first generation and atypical or second generation antipsychotics.

Behavioral Characteristics – Performances of mental function, resulting in a decrease of productive activities, inability to fulfill relationships with other people and/or the inability to adapt and change and cope.

Disoriented to Person – Not able to answer questions about relatives, friends, staff, and neighbors.

Disoriented to Time – Not aware of what time, day, month, year and/or season it is.

Disoriented to Place – Not aware of where he/she is, is not able to give details on where he lives, his address, or where he is presently staying.

Confusion – Abnormal mental state in which the individual experiences reduced mental functions, attentiveness, alertness and ability to comprehend the environment.

Withdrawn, Isolates Self – a pattern of listlessness, lethargy, apathy, or lack of energy, which is not attributable to physical illness or injuries.

Hyperactive – Increased or excessive activity

Mood Swings – Intense signs of distress or depression followed by sense of well being or happiness.

Exhibits Bizarre Behavior – Socially inappropriate actions, such as disruptive sounds, excessive noise, sexual behavior, disrobing in public, hoarding, throwing food or feces, etc.

Neglect to Self – Shows no interest in dressing, eating, bathing or caring for him/herself

Verbally Abusive/Aggressive – Threatens screams or curses at others.

Physical Abusive/Aggressive – Physically attacks others by throwing objects, punching, biting, pushing, pinching, pulling hair, scratching, etc.

Wanders Mentally – Cluster of global, transient changes and disturbances in attention, cognition, psychomotor activity, level of consciousness, and/or sleep-wake cycle

Wanders Physically – Moves with no rational purpose, seemingly oblivious to needs or safety.

Agitation – Excessive restlessness, increased mental and/or physical activity associated with anxiety

Cannot Make Own Decisions – Inability to make rational assessments/judgments

Difficulty Sleeping – Experiences nightmares, inability to sleep, or sleep disturbances

Difficulty Concentrating – Inability to fix mind on one subject to the exclusion of other thoughts

Comprehensive Assessment/Referral Evaluation Tool (CARE) – An ODJFS developed tool used to collect data, identify needs, and determine the level of care on admission to the PASSPORT waiver program

Front Door Stakeholder Group – Designated team who are working toward modifying the entry into long-term services and supports by focusing attention on the functional criteria and operational processes that lead to consumer entrance.

Functional Limitations – Restrictions in major life activities caused by disabilities that prevent or severely limit the ability to perform the following functions:

Self Care – Ability to bathe, groom, toilet, dress and feed self and administer medications to self with or without the use of assistive devices

Understanding – Ability to know and react to cause and effect

Learning – Ability to achieve increased knowledge milestones as expected for the individual's chronological age

Mobility – Ability to use fine and gross motor skills to reposition or move oneself from place to place, with or without the use of assistive devices

Self direction – Ability to foresee the outcome of actions, understand cause and effect and make future decisions based on past consequences.

Capacity for independent living – Ability to initiate appropriate activities, exercise self-control in daily life, follow basic rules, live by self

Communication – Age appropriate ability to express needs and wants in a manner that is understandable to people, includes spoken, written, signed, electronic, or mechanical means

Economic self-sufficiency – Ability to obtain and engage in community employment and manage money, access insurance and/or public benefits

Instrumental Activities of Daily Living (IADLs) – A community living skill performed, with or without the use of assistive devices on a regular basis that enables the individual to

independently manage the individual's living arrangement. May refer to shopping, meal preparation, environmental management, house cleaning, heavy chores, yard work, and/or maintenance, person laundry, accessing community services, telephoning, accessing transportation, managing legal and/or financial affairs, and medication administration as described in the following:

Shopping – The ability to prepare a shopping list and purchase groceries, clothing, and household items

Meal Preparation – The ability to plan nutritional meals and cook any type of food

Environmental Management – The ability to maintain the living arrangement in a manner that ensures the health and safety of the individual

Personal Laundry – The ability to wash and dry clothing and household items by machine or by hand.

Accessing Community Services – The ability to interface with the community.

Level of Care (LOC) – Amount of assistance required by consumers which may determine their eligibility for programs and services. Level include: protective, intermediate, and skilled. In order to qualify for Medicaid nursing home or home and community-based services, an individual must meet a nursing home level of care (either intermediate or skilled).

Level of Care Assessment – A utilization management tool used to determine, via a set of common standards, what acuity of care/services is needed on admission to a long-term care program.

Level of Care Determination Worksheet and Data Collection Tool - A form used to provide information to assist in completing the Level of Care Assessment

Long-term Care (LTC) – The broad spectrum of medical and support services provided to persons who have lost some or all capacity to function on their own due to a chronic illness or condition, and who are expected to need such services over a prolonged period of time. Long-term care can consist of care in the home by family members who are assisted with voluntary or employed help, adult day health care, or care in assisted living or skilled nursing facilities.

Medical Waiver Program – Medicaid programs that provide alternatives to nursing home care. These programs have the potential to reduce overall Medicaid costs by providing services in innovative ways, or to groups of people not covered under the traditional Medicare program. These programs are approved on a demonstration basis, and generally have limited slots available.

Medication Administration – The ability to prepare and self-administer all forms of over the counter and prescription medication.

Minimum Data Set – Version 2.0 - A basic assessment tracking form used for nursing facility resident assessment and care screening. This information collected on this form is used for payment to the facility.

Money Follows the Person Rebalancing Demonstration – A part of a comprehensive, coordinated strategy, enacted by the Deficit Reduction Act of 2005, to assist States in their efforts to reduce their reliance on institutional care, while developing community-based long-term care opportunities.

Nursing Facility – A facility licensed by the state to offer residents personal care as well as skilled nursing care on a 24 hours a day basis. Nursing facilities provide nursing care, personal care, room and board, supervision, medication, therapies, and rehabilitation. Rooms are often shared and communal dining is common

Office of Ohio Health Plans – The State department that manages the provision of health coverage to families with low incomes, children, pregnant women, and people who are aged, blind, or who have disabilities.

Ohio Home Care Services Waiver – The waiver is designed to meet the home care needs of people, 0 to 60 years old, who have certain medical conditions and/or functional abilities that would qualify them for Medicaid coverage in a nursing home or hospital.

PASSPORT (Pre-Admission Screening and Services Providing Options and Resources Today) – Ohio’s home and community-based Medicaid waiver program for low-income persons age 60 years and over.

Pre-Admission Screening/Resident Review - A screening process that is Federally mandated to prevent people with mental illness and/or mental retardation from being inappropriately admitted to a nursing facility, and if they are admitted, that they receive active treatment for their mental illness or mental retardation while in the facility.

Program Eligibility Assessment Tool and Related Worksheet – (PEAT) The ODJFS-developed tool used during a face-to-face interview with an applicant or consumer as part of the ODJFS administered waiver program eligibility determination/redetermination process.

Provision of Help – The amount of assistance needed in the initiation and/or completion of a task. The measurements were defined as follows:

No Help – Independent with care needs. This means the patient did not require assistance (except mechanical such as wheel chair, walker, cane, pilot dog, etc.) in performing the specific ADLs.

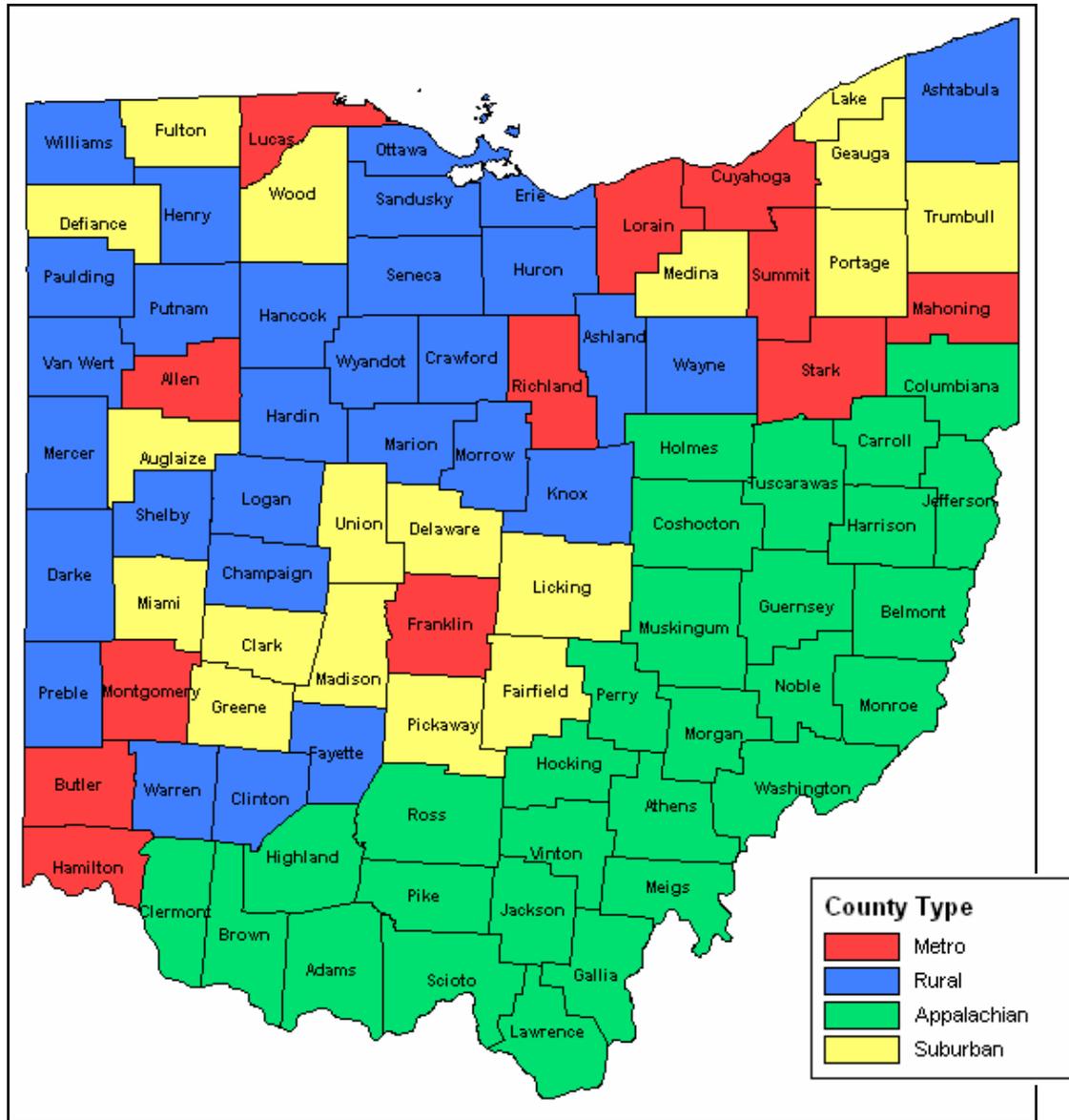
Supervision – Needed supervision assistance, such as reminders, directions, cues, etc. or observing while the individual performs an activity to ensure the individual’s health and safety, but not hands on assistance.

Hands On – Unable to perform the specific ADLs without someone to physically assist them.

Skilled Nursing – Services that a nurse is needed to monitor a condition on an on-going basis, to make physician/nurse ordered adjustments to treatment regimen and indicate that interventions and adjustments are both necessary and made. Measurement of nursing includes instability of conditions, complexity of services and special medical complications.

Skilled Services – Medical services such as physical therapy, injections, catheterizations, and dressing changes provided by medical professionals, including nurses, doctors and physical therapists.

Appendix A – Ohio County Type Map



County Type	Counties
Metro	Allen, Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Richland, Stark, Summit
Rural	Ashland, Ashtabula, Champaign, Clinton, Crawford, Darke, Erie, Fayette, Hancock, Hardin, Henry, Huron, Knox, Logan, Marion, Mercer, Morrow, Ottawa, Paulding, Preble, Putnam, Sandusky, Seneca, Shelby, Van Wert, Warren, Wayne, Williams, Wyandot
Appalachian	Adams, Athens, Belmont, Brown, Carroll, Clermont, Columbiana, Coshocton, Gallia, Guernsey, Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Tuscarawas, Vinton, Washington
Suburban	Auglaize, Clark, Defiance, Delaware, Fairfield, Fulton, Geauga, Greene, Lake, Licking, Madison, Medina, Miami, Pickaway, Portage, Trumbull, Union, Wood

Appendix B – Ohio County Location Map



County Location	Counties
Northwest	Allen, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Lucas, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert, Williams, Wood, Wyandot
Northeast	Ashland, Ashtabula, Columbiana, Cuyahoga, Geauga, Holmes, Lake, Lorain, Mahoning, Medina, Portage, Stark, Summit, Trumbull, Wayne
Southeast	Athens, Belmont, Carroll, Clermont, Coshocton, Gallia, Guernsey, Harrison, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Tuscarawas, Vinton, Washington
Southwest	Adams, Brown, Butler, Champaign, Clark, Clermont, Clinton, Darke, Fayette, Greene, Hamilton, Logan, Miami, Montgomery, Pike, Preble, Ross, Scioto, Shelby, Warren
Central	Delaware, Fairfield, Franklin, Knox, Licking, Madison, Marion, Morrow, Pickaway, Union

Appendix C – Mental Disorder Diagnosis Codes

Mental Disorder Group	ICD-9 Diagnosis Code	Description
Dementia	290.xx	Senile and Presenile Organic Psychotic Condition
	293.xx	Transient Organic Psychotic Conditions
	294.xx	Other Organic Psychotic Conditions
	310.xx	Conditions due to Organic Brain Damage
	331.xx	Other Cerebral Degenerations
Mental Illness	295.xx	Schizophrenia
	296.xx	Affective Psychoses
	297.xx	Paranoid States
	298.xx	Other Non-Organic Psychoses
	300.xx	Neurotic Disorders
	301.xx	Personality Disorders
	306.xx	Physiological Malfunction Arising from Mental Factors
	307.xx	Special Symptoms, Not Classified Elsewhere
	309.xx	Adjustment Reaction
	311.xx	Depressive Disorders, Not Classified Elsewhere
	312.xx	Disturbances of Conduct, Not Classified Elsewhere
MR/DD	316.xx	Factors Associated with Other Diseases
	317.xx	Mental Retardation
	318.xx	Mental Retardation
Substance Abuse	319.xx	Mental Retardation
	291.xx	Alcoholic Psychosis
	292.xx	Drug Psychosis
	303.xx	Alcohol Dependence
	304.xx	Drug Dependence
	305.xx	Nondependent Abuse of Drug

Appendix D – Medications

Antipsychotics

TYPICAL ANTIPSYCHOTICS

Haldol (haloperidol), Haldol Decanoate
Loxitane (loxapine)
Mellaril (thioridazine)
Moban (molindone)
Navane (thiothixene)
Prolixin (fluphenazine), Prolixin Decanoate
Serentil (mesoridazine)
Stelazine (trifluoperazine)
Thorazine (chlorpromazine)
Trilafon (perphenazine)
Vesprin (triflupromazine)

ATYPICAL ANTIPSYCHOTICS

Clozaril (clozapine)
Risperdal (risperidone)
Seroquel (quetiapine)
Zeldox (ziprasidone)
Zyprexa (olanzapine)

BIPOLAR DISORDER

Calan (verapamil)
Cibalith-S (lithium citrate)
Depakene (valproic acid)
Depakote (divalproex sodium)
Eskalith (lithium carbonate)
Isoptin (verapamil)
Lithobid (lithium carbonate)
Tegretol (carbamazepine)
Topamax

Antidepressants

Tricyclics

Adapin (doxepin)
Anafranil (clomipramine)
Desyrel (trazodone)
Elavil (amitriptyline)
Endep (amitriptyline)
Ludiomil (maprotiline)
Norpramin (desipramine)
Pamelor (nortriptyline)
Sinequan (doxepin)
Surmontil (trimipramine)
Tofranil (imipramine)
Vivactil (protriptyline)

SSRIs

Luvox (fluvoxamine)
Paxil (paroxetine)
Prozac (fluoxetine)
Zoloft (sertraline)

MAOIs

Nardil (phenelzine)
Parnate (tranylcypromine sulfate)

Others

Effexor (venlafaxine)
Remeron (mirtazapine)
Serzone (nefazodone)
Wellbutrin (bupropion)

Asendin (amoxapine)

Anti Anxiety

ADD

Adderall (amphetamine; dextroamphetamine)
Cylert (pemoline)
Dexedrine (dextroamphetamine)
Norpramin (desipramine)
Ritalin (methylphenidate)
Wellbutrin (bupropion)

ANXIETY

Ativan (lorazepam)
BuSpar (buspirone)
Centrax (prazepam)
Klonopin (clonazepam)
Librium (chlordiazepoxide)
Serax (oxazepam)
Tranxene (clorazepate)
Valium (diazepam)
Xanax (alprazolam)

OCD

Anafranil (clomipramine)
Luvox (fluvoxamine)
Paxil (paroxetine)
Prozac (fluoxetine)
Zoloft (sertraline)

PANIC

Paxil (paroxetine)
Prozac (fluoxetine)
Tofranil (imipramine)
Xanax (alprazolam)
Zoloft (sertraline)
