U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

PICTURE OF HOUSING AND HEALTH:

MEDICARE AND MEDICAID USE AMONG OLDER ADULTS IN HUD-ASSISTED HOUSING

March 2014

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PICTURE OF HOUSING AND HEALTH:
Medicare and Medicaid Use Among Older Adults in HUD-Assisted Housing

The Lewin Group

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Prepared for
Office of Disability, Aging and Long-Term Care Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services

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ACRONYMS

The following acronyms are mentioned in this report and/or appendices.

ADL	Activity of Daily Living
AIDS	Acquired Immune Deficiency Syndrome
AMI	Area Median Income
ASC	Ambulatory Surgery Center
BMIR	Below-Market Interest Rate
CBPP	Center on Budget and Policy Priorities
CBSA	Core Based Statistical Area
CCW	Chronic Condition Warehouse
CMS	Centers for Medicare and Medicaid Services
DIB	Disability Insurance Benefits
DME	Durable Medical Equipment
E&M	Evaluation and Management
ED	Emergency Department
ER	Emergency Room
ESRD	End Stage Renal Disease
FFS	Fee-For-Service
FIPS	Federal Information Processing Standards
FPL	Federal Poverty Level
GDIT	General Dynamics Information Technology
HCBS	Home and Community-Based Services
HH	Home Health
HHS	U.S. Department of Health and Human Services
HIV	Human Immunodeficiency Virus
HMO	Health Maintenance Organization
HUD	U.S. Department of Housing and Urban Development
IADL	Instrumental Activity of Daily Living
IMG	Imaging Services
LIS	Low Income Subsidy
MAX	Medicaid Analytic eXtract

MDS	Minimum Data Set
MME	Medicare and Medicaid Enrollee
MR/DD	Mental Retardation and Other Developmental Disabilities
MSP	Medicare Savings Program
NF	Nursing Facility
PAC	Project Assistance Contract
PHA	Public Housing Authority
PHYS	Physician Office Services
PIC	Public and Indian Housing Information Center
PIH	Public and Indian Housing
PMPM	Per Member Per Month
PRAC	Project Rental Assistance Contract
QDWI	Qualified Disabled and Working Individual
QMB	Qualified Medicare Beneficiary
RAP	Rental Assistance Payment
RTI	Research Triangle Institute
SCHIP	State Children's Health Insurance Program
SNF	Skilled Nursing Facility
SSA	Social Security Administration
SSI	Supplemental Security Income
SSN	Social Security Number
TRACS	Tenant Rental Assistance Certification System

EXECUTIVE SUMMARY

Overview

For the U.S. Departments of Health and Human Services (HHS) and Housing and Urban Development (HUD), the Lewin Group and its sub-contractors, Leading Age and the Moran Company, explored the potential for publicly-subsidized senior housing to serve as a platform for efficiently managing the population health of low-income older adults with various levels of physical and mental health risk. We developed a demonstration design and piloted creating a new dataset linking HUD tenant and Medicare/Medicaid claims data in 12 jurisdictions across the country.

Study Objective

This study task explored the feasibility of matching HUD administrative data to the HHS Centers for Medicare and Medicaid Services (CMS) administrative data in order to determine the extent to which this resource could track health and housing outcomes, and whether this approach could reliably support future research and policy analysis.

Data

We focused on 2008 individual-level administrative data provided for the 12 geographic areas from both HUD and CMS. The HUD multifamily and public housing data came from the Tenant Rental Assistance Certification System and the Public and Indian Housing Information Center. Medicare administrative data came from the Medicare Beneficiary Summary File and includes Medicare Parts A, B, and D enrollment, payments, and utilization, as well as information about chronic conditions. The Medicaid Analytic eXtract Person Summary file, based on state submission of Medicaid administrative data, provided enrollment, payment and utilization for Medicaid-covered services.

Study Objectives and Results

We provide a detailed description of the study results in the **Summary Report** and in Appendix C. The chart below provides a brief overview of the study objectives and corresponding results.

Objectives	Results
Match Rate between HUD and CMS data	Among HUD-assisted individuals age 65 or older in 2008, 93% matched to Medicare based on Social Security number (SSN) only; 85% matched to Medicare when requiring a match on SSN, gender, and date of birth.
Estimate HUD-assisted Medicare beneficiaries enrollment in Part D subsidy assistance programs or Medicaid	Health insurance assistance programs for Medicare beneficiaries reduce out-of-pocket health care expenses, which result in savings for HUD. Among HUD-assisted Medicare beneficiaries age 65 years or older: • Approximately 68% of HUD-assisted Medicare beneficiaries were dually enrolled in Medicare and Medicaid. • Approximately 90% of the Medicare beneficiaries had Part D (drug coverage) coverage. Among those with Part D coverage, 80% received premium and out-of-pocket assistance through the Low Income Subsidy Program. While we would not expect the proportion to be 100%, as not all HUD-assisted Medicare beneficiaries meet the eligibility requirements for these programs because the income criteria for HUD-assisted housing can be higher than that for health insurance assistance, there may be room for improvement in the enrollment rates.
Compare Medicare and Medicaid payment and utilization among Medicare and Medicaid enrollees (MMEs)	Most of our analyses to compare HUD-assisted individuals to unassisted individuals focused on Medicare beneficiaries dually enrolled in Medicaid (MMEs), age 65+ with fee-for-service (FFS) coverage compared to unassisted MME beneficiaries in the community in order to examine comparable groups in terms of economic status because this factor drives social determinants of health, use of services, and resulting payment. Health conditions: • HUD-assisted MMEs had more chronic conditions (55% of HUD-assisted MMEs had 5 or more compared to 43% of unassisted MME), which translated into higher health care utilization and costs than unassisted MMEs in the community. Medicare payments and utilization: • HUD-assisted MME beneficiaries' average Medicare FFS per member per month (PMPM) payment was 16% higher than unassisted MMEs in the community ($1,222 compared to $1,054). • Higher utilization by HUD-assisted MMEs for home health visits (31% higher), ambulatory surgery center visits (45% higher), physician office visits (26%), and emergency department visits (13%) drove the higher payments. Medicaid payments and utilization: • HUD-assisted MMEs Medicaid FFS PMPM payment was 32% higher than unassisted MMEs ($1,180 vs. $895). • HUD-assisted MMEs used over 100% more Personal Care services, 80% more "other HCBS", and over 67% more durable medical equipment services covered by Medicaid than unassisted MMEs in the community.

Discussion

This study demonstrates the feasibility and utility of linking HUD tenant data to CMS administrative data. The descriptive results summarized above highlight key areas for future analysis to better understand the health and health care utilization of HUD-assisted elderly individuals enrolled in Medicare. This includes supplementing current data sources with additional CMS data, refining matching algorithms and study samples to better determine HUD-assisted elderly individuals' eligibility and enrollment in Medicare programs, providing distributional analyses, and conducting multivariate regressions to determine if the differences observed in descriptive comparisons remain after adjusting for confounders.

I. INTRODUCTION

A. Study Overview and Task Objectives

The U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Planning and Evaluation's Office of Disability, Aging and Long-Term Care Policy, in partnership with U.S. Department of Housing and Urban Development (HUD) and the HHS Administration for Community Living, engaged the Lewin Group and its sub-contractors, Leading Age Center for Applied Research and the Moran Company to develop design options for a demonstration of targeted, coordinated housing, health and long-term care services and supports for low-income older adults. This project sought to: (1) identify and examine affordable housing with services models that enable low-income older adults to live in affordable, safe, and accessible housing with access to health and supportive services needed to "age in place"; and (2) propose a demonstration design to track and measure outcomes and costs associated with promising housing with services models. This report presents the results of *Task 6: Data Analysis.* It explores the feasibility of matching HUD administrative data to national health administrative data in order to determine whether health and housing outcomes can be tracked through existing administrative data sources and whether this approach can reliably support future research and policy analysis.

We specifically focused on the feasibility of linking data from the HHS Centers for Medicare and Medicaid Services (CMS) to the HUD individual tenant-level administrative data. CMS data included the Medicare Beneficiary Annual Summary File and the Medicaid Analytic eXtract (MAX) for the 12 geographic areas of interest in this study (see Section III). Given the study objective, we chose geographic areas that have unique public housing with services models. For example, Burlington, Vermont has the "Supports and Services at Home" program that incorporates an interdisciplinary team of community service providers to coordinate participating residents' health and long-term care needs.

This report lays the groundwork for federal efforts to use existing administrative data maintained separately by health and housing agencies to more effectively serve individuals (including elderly and non-elderly persons with disabilities) and communities that could benefit from a coordinated housing with services program. In addition, we conducted initial descriptive analyses of the linked datasets to describe the individuals present in both the HUD and CMS data sources and compared them to individuals covered by Medicare and/or Medicaid, but not receiving housing assistance. Understanding the characteristics of individuals and their use of health care services in different housing arrangements will ideally inform policy to promote rational and optimal care.

B. Background

A large and rapidly expanding pool of low-income and modest-income older adults face the dual challenges of finding affordable and safe housing that can also accommodate changing needs as they grow older. Millions of older adults who rent or own their own homes face excessive housing costs and/or live in housing with serious physical problems. In 2011, an estimated 3.9 million older renter households without children had very low incomes (50% or less of area median income (AMI)). Of these households, 37% faced severe housing cost burdens exceeding half their incomes without public housing assistance, and a similar proportion, 36%, did receive assistance.[1]

A report from the Summit on Aging in Place in Public Housing (2011) stated that 1.3 million older adult renters live in publicly-subsidized housing. These older renters may have increased difficulty as they age, since they may experience a decline in their physical, cognitive, and/or mental health conditions.[2] While the majority of these older renters are relatively healthy, Assets and Health Dynamics Among the Oldest Old survey data (Wave 2) show that subsidized older residents report poorer health than unsubsidized renters, more chronic conditions, significantly higher numbers of limitations in their ability to carry out basic activities of daily living (ADLs) and instrumental activities of daily living (IADLs), and less likelihood to live in properties that offer services.[3]

The current system of multiple payers -- primarily Medicare and Medicaid -- provides few incentives for primary, acute and chronic care providers to collaborate with each other, let alone cooperate with low-income housing or aging and long-term services and supports providers.[4] As a result, when many older adults most need integrated services, they experience a highly fragmented and poorly coordinated services system. The ability of older adults with chronic conditions and/or significant disability to continue living independently may be cut short, their health and safety compromised, and public and private health and long-term care costs may skyrocket as a result of premature transfers to more expensive nursing homes and residential care facilities, repeated trips by emergency medical technicians to an individual's home, repeated trips to hospital emergency departments, and frequent hospitalizations.

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[1] U.S. Department of Housing and Urban Development. (2013). Worst Case Housing Needs 2011: Report to Congress. Washington, D.C. Available at:
http://www.huduser.org/portal/publications/affhsg/wc_HsgNeeds11_report.html.

[2] Summit on Aging in Place in Public Housing. (2011). Hosted by Enterprise Community Partners, Inc., LeadingAge. Supported by the Atlantic Philanthropies.

[3] Gibler, K. (2003). Aging Subsidized Housing Residents: A Growing Problem in U.S. Cities. *Journal of Real Estate Research 25*, (4) 395-420.

[4] Long-term services and supports include institutional (e.g., nursing facility) and home and community-based services (HCBS) (e.g., personal care to assist with bathing, dressing, eating and other ADLs in an individual's home or residential group setting, homemaker services, and transportation).

To address some of these issues, hundreds of publicly assisted largely not-for-profit housing providers and several states and private sector organizations have developed programs to bring enhanced services to residents. Innovative housing providers across the country, working with federal, state, and community partners have, largely at their own initiative, developed many prototypes of publicly assisted housing with enhanced services for older adults. Typically, these properties employ a service coordinator (available through HUD grants and, in some cases, incorporated into the properties operating budget), complemented by a wide array of community partnerships.

The following table provides a guide to HUD and CMS key concepts and terms used throughout this report.

Guide to Housing Assistance and Medicare and Medicaid Services
U.S. Department of Housing and Urban Development (HUD) Programs
HUD provides housing assistance to about 4.6 million low-income households,[1] including families with children, older adults, and people with disabilities. Tenant income eligibility is determined on the basis of AMI (generally calculated for metropolitan areas and non-metropolitan counties), adjusted for family size. Low-income families are defined as families whose incomes do not exceed 80% of the AMI and very low-income families are defined as families whose incomes do not exceed 50% of the AMI. Over three-fourths of assisted households in 2009 had extremely low incomes not exceeding 30% of AMI. HUD programs important for this report include: - Public Housing is housing administered by PHAs for eligible low-income families, older adults, and people with disabilities. Eligibility is based on annual gross income and United States citizenship or eligible immigration status.[2] About 23% of HUD-assisted households live in public housing.   - Housing Choice Vouchers (also known as Section 8 vouchers) provide rent subsidies used in private rental markets and, like public housing, are administered by PHAs. Eligibility is based on income and citizenship or eligible immigration status. A family or individual receiving a voucher must pay a specified percentage (often 30%) of their income toward rent and the PHA pays the balance of rent, subject to program limits.[3] Voucher holders represent about 46% of HUD-assisted households.   - Section 202 housing is the Supportive Housing for the Elderly Program. This is a program run by HUD's Office of Multifamily Housing Programs. It helps finance the development of affordable and accessible housing for low-income older adults. This capital is provided to private not-for-profit organizations and not-for-profit consumer cooperatives and need not be repaid as long as the buildings house low-income seniors.[4] The program may also provide rent subsidies.[5]   - Section 811 housing is supportive housing for persons with disabilities. It is also run by HUD's Office of Multifamily Housing Programs. The 811 program provides interest-free capital to eligible organizations to help them finance affordable housing with supportive services for low-income adults with disabilities. As with the 202 program, capital need not be repaid as long as the buildings house low-income disabled persons. The program may also provide rent subsidies.[6]   - HUD's Office of Multifamily Programs has several programs termed here "other multifamily housing," in which rental assistance is provided in conjunction with programs that subsidize developments through below-market interest financing, mortgage insurance or other forms of assistance for the new construction or rehabilitation of housing for low-income individuals. Multifamily programs, including the Section 202 and Section 811 supportive housing programs represent about 30% of HUD-assisted renters. See Appendix D for the full list of multifamily housing properties included in the data analysis.
Centers for Medicare and Medicaid Services (CMS) Programs
Medicare[7,8,9] is a federal program that provides health insurance for older adults and people with disabilities. This program was designed for people age 65 and older. This program is typically an entitlement for older adults who: - Are eligible for Social Security Payments, and   - Have made payroll tax contributions for 10 or more years.   The spouse of someone who meets these guidelines is also eligible for Medicare. Those under 65 can qualify for a couple of reasons. One of the major reasons is being entitled to Social Security disability benefits for at least 2 years. There are multiple parts to Medicare, including: - Medicare Part A ("Hospital insurance") covers acute health care needs, including hospital care, SNF care, hospice, and HH. Part A is paid for by a portion of Social Security tax. The vast majority of people age 65 and over get Medicare Part A for free as long as the individual or his/her spouse paid Medicare taxes for a minimum of 10 years and did not enroll late for Medicare, meaning he/she enrolled when first eligible.   - Medicare Part B ("Medical insurance") covers outpatient health care needs, including doctors' visits and other preventive care services. Individuals who elect Part B coverage must pay premiums.

- Medicare Part C, or Medicare Advantage Plans, provide you with all your Part A and Part B benefits, and often also cover prescription drugs. Private companies that contract with Medicare offer various types of plans including HMOs, Preferred Provider Organizations, Private FFS Plans, Special Needs Plans, and Medicare Medical Savings Account Plans. Individuals who elect Part C coverage must pay premiums.
- Medicare Part D provides prescription drug coverage. This is a voluntary program that is offered through private insurance companies that are under contract with Medicare, and include premiums.

Medicaid[10,11] is a public health insurance program for low-income children and adults.[12] States administer this program following federal rules, and it is jointly financed by both federal and state governments. The federal minimum standards for eligibility are:

- State coverage of core groups, which include low-income elderly individuals, people with disabilities, pregnant women, children, and parents of children.
- These core groups are subject to different minimum income levels. For older adults and people with disabilities, states typically provide coverage to those who receive SSI.

Beyond these federal minimums, states can set their own standards for eligibility within the allowed federal range and can opt to cover additional services. For example, all states provide HCBS to older adults through waivers and many states use the upper income limits of 300% of SSI for these services.

Medicaid also covers the Medicare premiums and copayments for low-income Medicare beneficiaries through the MSP. Those with income 100% or less of the FPL receive premium and copayment coverage while those with income 101%-125% of the FPL receive premium coverage only. In addition, some individuals receive full Medicaid benefits for services not included in Medicare, such as assistance with personal care and long stay nursing facility care. Participants who are a part of both programs, MMEs, are often referred to as Dual Eligibles or Duals.

NOTES:
1. Program statistics in this table come from HUD's Picture of Subsidized Households dataset for 2009, available from http://www.huduser.org/portal/datasets/picture/yearlydata.html.
2. U.S. Department of Housing and Urban Development. HUD's Public Housing Program. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/topics/rental_assistance/phprog.
3. U.S. Department of Housing and Urban Development. Housing Choice Vouchers Fact Sheet. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/topics/housing_choice_voucher_program_section_8.
4. U.S. Department of Housing and Urban Development. Section 202 Supportive Housing for the Elderly Program. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/eld202.
5. Note that some tables refer to both "Section 202" and "Section 202/162." A small number of 202 properties contain units for non-elderly disabled that were funded with rental assistance created by Section 162 of the Housing and Community Development Act of 1987. Section 162 has been superseded by the Section 811 program, which supports housing for disabled individuals.
6. U.S. Department of Housing and Urban Development. Section 811 Supportive Housing for Persons with Disabilities. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/disab811.
7. Lind, K.D. (2012). Setting the Record Straight about Medicare. Washington, DC: AARP Public Policy Institute. Accessed December 2013. http://www.aarp.org/health/medicare-insurance/info-02-2012/Setting-the-Record-Straight-about-Medicare-fact-sheet-AARP-ppi-health.html.
8. Kaiser Family Foundation. (2012). The Medicare Program at a Glance. Accessed December 2013. http://kff.org/medicare/fact-sheet/medicare-at-a-glance-fact-sheet/.
9. Barry, P. (2013). Do You Qualify for Medicare? Accessed December 2013. http://www.aarp.org/health/medicare-insurance/info-04-2011/medicare-eligibility.html.
10. Kaiser Family Foundation. (2013). The Medicaid Program at a Glance. http://kff.org/medicaid/fact-sheet/the-medicaid-program-at-a-glance-update/.
11. Kaiser Family Foundation (2011). Federal Core Requirements and State Options in Medicaid: Current Policies and Issues. Accessed December 2013. http://kff.org/health-reform/fact-sheet/federal-core-requirements-and-state-options-in/.
12. "Low-income" for Medicaid and Medicare do not follow the same guidelines as HUD. They are subject to federal and state regulations.

II. STUDY OBJECTIVES AND RESEARCH QUESTIONS

The specific objectives of *Task 6: Data Analysis* and the corresponding research questions are outlined below. Although our project focuses on older adults and housing with services, we assessed the feasibility and quality of the match to the Medicare and Medicaid administrative data under Objectives A and B based on all HUD-assisted individuals. For Objectives C and D, related to Medicare enrollment and health care spending and utilization, we restricted our sample to individuals age 65 and older. This resulted in the most representative comparison because the vast majority of individuals age 65 and older have Medicare coverage and the small subset of those age 60-64 with Medicare or Medicaid coverage likely have it due to a disability.

A. Understand Demographic Characteristics of HUD-Assisted Individuals in the 12 Study Jurisdictions
The first component of the study was to understand the characteristics of HUD-assisted individuals--both elderly and non-elderly. We conducted basic descriptive statistics on the HUD individual tenant-level administrative data to answer the following research questions: 1. What are the demographic characteristics of HUD-assisted individuals, including age, gender, subsidy type, property type, race, disability status, and living arrangement?   • How do the characteristics vary across year? Across the 12 geographic locations? Across housing subsidy type? Across housing program type?   2. What proportion of public and assisted housing properties are "elderly properties"?   • How does this designation vary across the 12 geographic locations?
B. Calculate HUD and Medicare and/or Medicaid Match Rate in the 12 Study Jurisdictions
The second study component used both the HUD and CMS data sources. We linked individuals within the HUD data to the CMS data to answer the following research questions: 1. What proportion of HUD-assisted individuals link to Medicare or Medicaid enrollment data ("match rate")?   • How does the match rate vary across age groups? By geography? By housing program type?   2. How do older individuals receiving HUD housing assistance and who link to Medicare or Medicaid enrollment data compare demographically to HUD-assisted elderly individuals who do not link to the Medicare or Medicaid data?
C. Estimate the Proportion of HUD-Assisted Medicare Beneficiaries with Enrollment in Part D Subsidy Assistance Programs or Medical Savings Program (i.e., Medicaid)
HUD is interested in understanding what proportion of HUD-assisted Medicare beneficiaries are enrolled in programs that could reduce their out-of-pocket health care expenses and, therefore, reduce HUD's costs.   1. What proportion of HUD-assisted Medicare beneficiaries are enrolled in Part D subsidy assistance programs or Medical Savings Program (i.e., Medicaid)?
D. Compare Medicare and Medicaid Payment and Utilization for HUD-Assisted Beneficiaries and Unassisted Beneficiaries in the Community in the 12 Study Jurisdictions
How do HUD-assisted Medicare beneficiaries compare to unassisted beneficiaries in the community? What are the differences in demographic characteristics, Medicare/Medicaid coverage characteristics, health and health care utilization and payments?   This summary includes results for this research question for two sub-groups: 1. MMEs, age 65+.   2. Medicare/No Medicaid, age 65+.

III. DATA

We based the analysis on tenant-level administrative data from HUD and individual-level administrative data from CMS in the table below and described in detail in *Appendix A*. Note, that while we received HUD and CMS Medicare data for 2007-2009, the majority of our results are based on 2008 as 2009 data was not available for CMS Medicaid data.

	HUD Tenant-Level Administrative Data	CMS Individual-Level Administrative Data
Years	2007, 2008, & 2009	• 2007-2009 (Medicare) • 2007 & 2008 (Medicaid)
Data Sources	TRACS	Medicare Administrative Data from the Medicare Beneficiary Summary File for 2007-2009 • Parts A, B, & D • Chronic Conditions • Payment & Use
	PIH/PIC	Medicaid Administrative Data from the MAX Person Summary file for 2007 & 2008

The data were limited to individuals in our 12 geographic areas of interest for this study. As mentioned in the Introduction, given the study objective, we chose geographic areas that have unique public housing with services models:

1. New Haven-Milford, Connecticut
2. Bridgeport-Stamford-Norwalk, Connecticut
3. Milwaukee-Waukesha-West Allis, Wisconsin
4. San Francisco-Oakland-Freemont, California
5. Boston-Cambridge-Quincy, Massachusetts
6. Durham-Chapel Hill, North Carolina
7. Richmond, Virginia
8. New York-Northern New Jersey-Long Island
9. Columbus, Ohio
10. Akron, Ohio
11. Cleveland, Ohio
12. The entire State of Vermont

IV. RESULTS

The results presented below are organized by study objective and based on 2008 -- the most recent year for which we had data on HUD, CMS Medicare, and CMS Medicaid enrollment. Additional results for 2008 are presented in **Appendix C**. We also produced results for Objectives A and B, and C by year (2007, 2008, and 2009), which are included in **Appendix D**, all years.

A. Understand Demographic Characteristics of HUD-Assisted Individuals in the 12 Study Jurisdictions

Our sample of HUD-assisted individuals consisted of all individuals that appear in the Tenant Rental Assistance Certification System (TRACS) or Public and Indian Housing (PIH) Information Center (PIC) data at any point in time during 2008 in the 12 study jurisdictions. This included **2,057,893** unique individuals and **967,557** unique household heads that received housing assistance at some point during 2008. The Objective A results are stratified by housing assistance program in **Appendix D**, all years.

A1. Demographic Characteristics of HUD-Assisted Individuals

Figure 1 presents the demographic characteristics for the HUD-assisted individuals in the 12 study jurisdictions. Some highlights include:

- Approximately **19% of the sample was older than 62 years of age** with 37% younger than age 18.

- The largest proportion of the sample, 38%, was Black non-Hispanic. Approximately 24% were Hispanic, 16% were White non-Hispanic, and 19% were unknown or declined to report.

- **Over half of the sample (59%) was located in the New York-Northern New Jersey-Long Island area**. Nine geographies represent 5% or less of the sample. This distribution is due to our selection of certain geographies. Given the New York City area is the majority of our sample, the individuals living in this area heavily influence the results across all objectives.

FIGURE 1. Demographic Characteristics of HUD-Assisted Individuals in 12 Study Jurisdictions, 2008		
	Unique Individuals (N=2,057,893)	
	Mean	SD
Age		
All Persons	34.9	25.3
Household Heads	54.2	18.8
	N	**%**
Age group		
<18	764,543	37.2%
18-44	566,059	27.5%
45-61	327,067	15.9%
62-64	46,700	2.3%
65+	352,091	17.1%
Unknown/declined to report	1,433	0.1%
Geographic area		
Vermont	22,635	1.1%
New Haven-Milford	50,201	2.4%
Bridgeport-Stamford-Norwalk	35,326	1.7%
Milwaukee-Waukesha-West Allis	51,555	2.5%
San Francisco-Oakland-Fremont	167,795	8.2%
Boston-Cambridge-Quincy	243,601	11.8%
Durham-Chapel Hill	17,945	0.9%
Richmond	43,196	2.1%
New York-Northern New Jersey-Long Island	1,213,201	59.0%
Columbus	72,332	3.5%
Akron	35,409	1.7%
Cleveland	104,697	5.1%
Race/ethnicity		
White non-Hispanic	331,944	16.1%
Hispanic	489,337	23.8%
Black non-Hispanic	773,550	37.6%
Asian	56,934	2.8%
American Indian/Alaskan	3,699	0.2%
Hawaiian/Pacific Islander	2,762	0.1%
Other non-Hispanic	259	0.0%
Mixed non-Hispanic	275	0.0%
Unknown/declined to report	399,133	19.4%

Figure 2 presents the proportion of HUD-assisted individuals by property type for all ages. **Figure 3** presents the proportion of HUD-assisted individuals by property type for individuals age 62 years or older.[5]

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[5] Assisted households are categorized by property type in which they live, despite minor variations in subsidy type. "Housing choice vouchers" include all types of buildings in which housing choice voucher holders live, from a single-family home to a large apartment complex.

FIGURE 2. Distribution of HUD-Assisted Individuals by Property Type in 12 Study Jurisdictions, 2008, All Ages
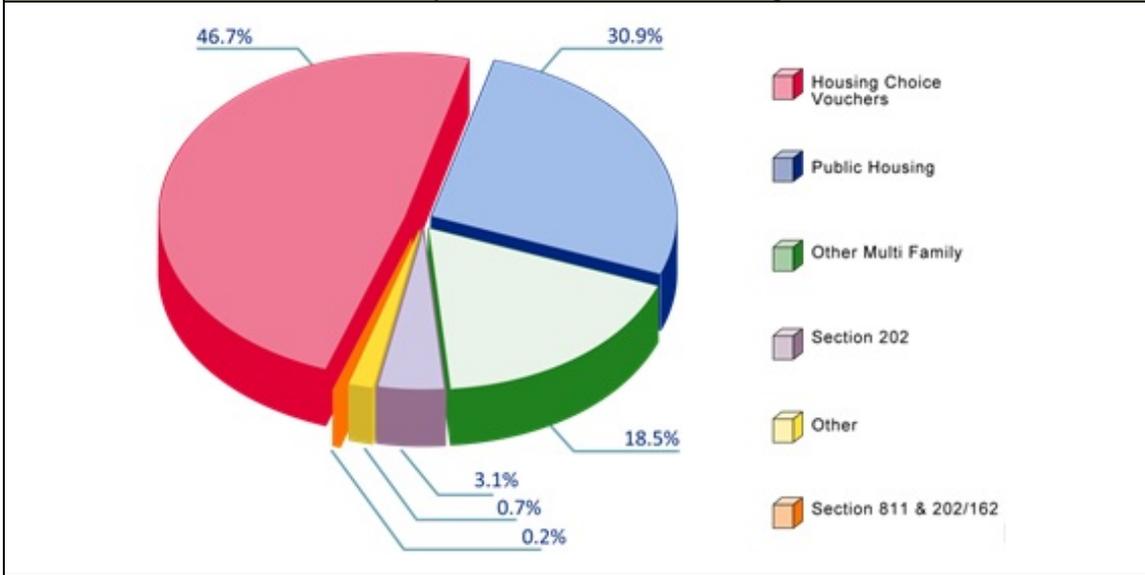
- The largest proportion of individuals received **Housing Choice Vouchers (47%)**.

- Approximately 31% resided in public housing, while 19% lived in other multifamily properties.

- Among individuals age 62 years or older, public housing, other multifamily, and Housing Choice vouchers were the most common (31%, 29%, and 26%), with an additional 14% residing in Section 202 properties.

FIGURE 3. Distribution of HUD-Assisted Individuals by Property Type in 12 Study Jurisdictions, 2008, Age 62+ Years
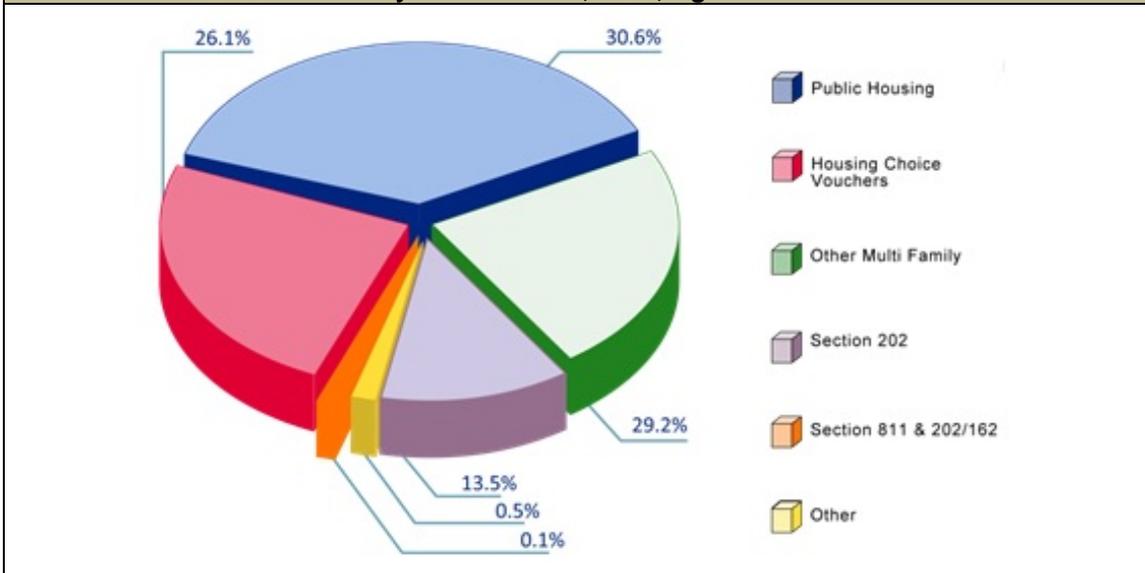
A2. HUD Elderly Properties

Figure 4 presents the proportion of properties that were defined as elderly[6] among all public housing properties (from PIC) and private assisted multifamily properties (from TRACS) within the 12 study jurisdictions. Half of all multifamily properties had an individual age 62 years or older in over 50% of their units. Approximately 42% of all public housing properties were either designated as elderly by public housing authorities (PHAs) or had an individual age 62 years or older in over 50% of their units. Both of these proportions varied greatly by the 12 study jurisdictions, from 30% of multifamily properties in Durham-Chapel Hill, North Carolina to 68% of multifamily properties in Bridgeport-Stamford-Norwalk, Connecticut and only 19% of public housing properties in Cleveland compared to 90% of public housing properties in Vermont (data not shown, see *Appendix D*).

FIGURE 4. Proportion of HUD-Assisted Properties in 12 Study Jurisdictions Defined as "Elderly", 2008		
Property Types	**Number of Properties**	**Percent of Properties**
Multifamily elderly properties (reported in TRACS)	1,811	50.0%
Public Housing elderly properties (reported in PIC)	335	42.0%

B. Calculate HUD and Medicare and/or Medicaid Match Rate in the 12 Study Jurisdictions, 2008

B1. Match Rate: HUD-Assisted Individuals to Medicare or Medicaid Enrollment Data

The main objective of this study task was to determine the ability to link HUD-assisted individuals to Medicare and Medicaid administrative data (*i.e., enrolled in Medicare or Medicaid health care programs*) in the 12 study jurisdictions. We accomplished this objective by calculating two measures that represent the ability to link the HUD and CMS data sources:

1. **Social Security Number (SSN) Match Rate**. The proportion of HUD-assisted individuals enrolled in Medicare and/or Medicaid programs determined **solely on a matched SSN** between the datasets.

2. **Restrictive Match Rate**. A fairly conservative method on which we established whether the individuals receiving housing assistance were definitively included in

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[6] For this report, "elderly properties" include properties designated as elderly by PHAs and properties in which 50 percent or more of households had an individual aged 62 years or older.

the Medicare and/or Medicaid data by ***requiring a direct match on SSN, gender, and date of birth***.[7]

 Figure 5 presents six separate SSN match rates. We calculated the match rate to Medicaid-only, Medicaid and Medicare, and Medicare only separately for HUD-assisted individuals less than age 65, and individuals age 65 or older. A match is defined as being present in both datasets at any point during 2008.

- Approximately 73% of HUD-assisted individuals less than age 65 and 96% of recipients age 65 or older matched to Medicaid, Medicare, or both.

- Among HUD-assisted individuals less than age 65, 66% linked to Medicaid-only, 6% link to both Medicare and Medicaid, and 1% link to Medicare only.

- **Among HUD-assisted individuals age 65 or older, 63% linked to both Medicare and Medicaid** and 30% linked to Medicare only. Less than 3% linked to Medicaid-only. It is most likely that the 3% who linked to Medicaid-only are not eligible for Medicare because they or their spouse did not make payroll tax contributions for ten or more years.

FIGURE 5. Medicare and Medicaid SSN Match Rates for HUD-Assisted Individuals, by Age Group, 2008

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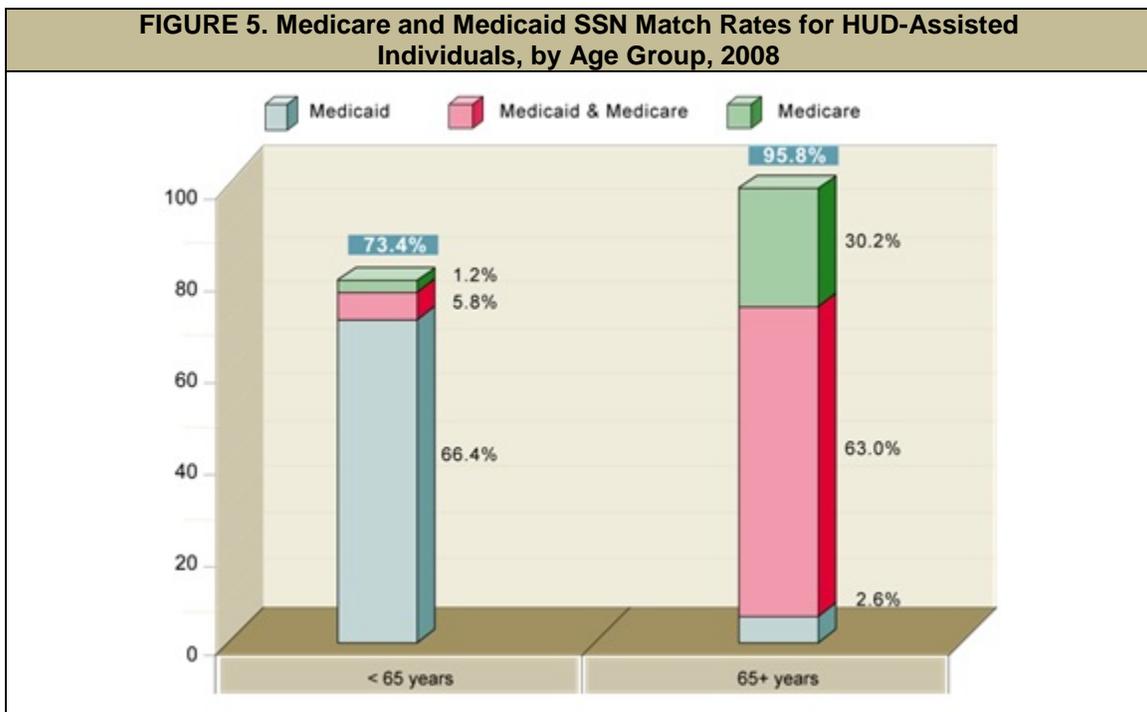
[7] Before calculating the **match rates**, we excluded all Medicare or Medicaid beneficiaries that were duplicates in the CMS administrative data. We excluded these individuals from both the CMS administrative data and the HUD data, for those that were also individuals receiving HUD-assisted housing. This way, the rates were accurate and did not overestimate the rates due to an individual being counted multiple times. We also excluded any individuals receiving HUD-assisted housing without a valid SSN from the denominator (invalid SSNs are those that begin with "999" or a letter).

Figure 6 presents the same six match rates as **Figure 5** using the restrictive match rate criterion. As expected, the match rate lowered given the more stringent criteria. The match rate for HUD-assisted individuals under age 65 decreased by four percentage points and by nine percentage points for recipients age 65 or older.

- Approximately 69% of HUD-assisted individuals less than age 65 and 87% of recipients age 65 or older matched to Medicaid, Medicare, or both.

- Among HUD-assisted individuals less than age 65, 63% linked to Medicaid only, 5% link to both Medicare and Medicaid, and 1% link to Medicare only.

- **Among HUD-assisted individuals age 65 or older, 58% linked to both Medicare and Medicaid** and 27% linked to Medicare only. Approximately 2% linked to Medicaid only. It is most likely that the 2% who linked to Medicaid only are not eligible for Medicare because they or their spouse did not pay payroll tax contributions for ten or more years.

FIGURE 6. Medicare and Medicaid Restrictive Match Rate for HUD-Assisted Individuals, by Age Group, 2008
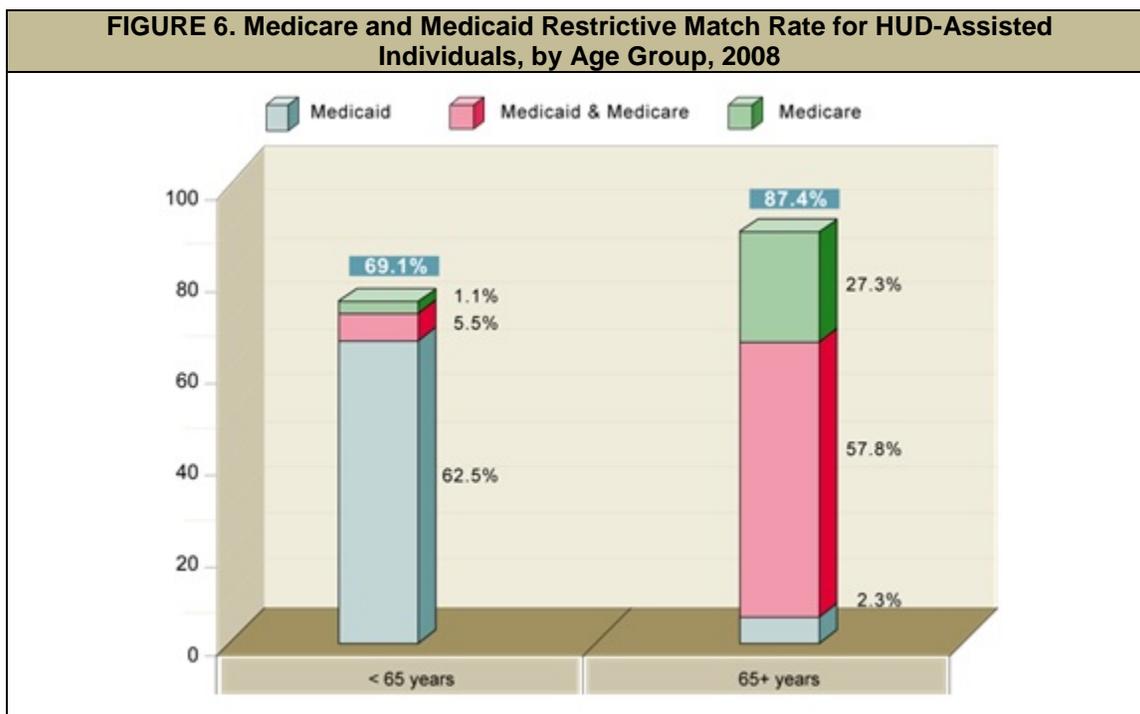
We also calculated the restrictive match rate for over age 65 by property type and geographic area (data not shown, see *Appendix D*).

- While the range of restrictive match rate did not vary widely across property types, the match rate was highest for Section 202 (elderly) properties at 90%. Individuals residing in public housing had the lowest match rate at 84%.

- These percentages are also high across geographic areas (86.2% in New York-Northern New Jersey-Long Island to 94.2% in Vermont) with the exception of Richmond, where only 31.2% linked.

The analyses in the remainder of the report rely on the sample that met the restricted match rate criteria. The more conservative restrictive match rate creates a sample for which we can be very confident the HUD-assisted individual was in fact enrolled in Medicare and/or Medicaid.

B2. *HUD-Assisted Individuals Matched to CMS Administrative Data Compared to Recipients Who Did Not Match*

Next we wanted to better understand the characteristics of HUD-assisted individuals that matched to the CMS administrative data relative to the recipients that did not match using the restrictive approach.

FIGURE 7. Comparison of HUD-Assisted Individuals Who Linked to Medicare or Medicaid and Who Did Not Link, Age 65 or Older, 2008				
	Linked to 2008 Medicare or Medicaid Enrollment Files (N=305,153)		Did Not Link to 2008 Medicare or Medicaid Enrollment Files (N=44,505)	
	N	%	N	%
Gender				
Male	91,241	29.9%	13,416	30.1%
Female	213,912	70.1%	30,965	69.6%
Unknown/declined to report	0	0.0%	124	0.3%
Race/ethnicity				
White non-Hispanic	65,942	21.6%	6,462	14.5%
Hispanic	46,760	15.3%	8,528	19.2%
Black non-Hispanic	48,785	16.0%	10,729	24.1%
Asian	11,373	3.7%	1,250	2.8%
Other	885	0.3%	103	0.2%
Unknown/declined to report	131,408	43.1%	17,433	39.2%
Property type				
Public housing	89,013	29.2%	16,709	37.5%
Housing Choice Vouchers	74,796	24.5%	9,005	20.2%
Other multifamily	91,469	30.0%	12,836	28.8%
Section 202	48,424	15.9%	5,750	12.9%
Other multifamily	298	0.1%	37	0.1%
Other	1,153	0.4%	168	0.4%
Elderly designated property[1]				
Yes	160,398	52.6%	20,102	45.2%
No	69,377	22.7%	15,328	34.4%
Unknown	75,378	24.7%	9,075	20.4%
SSI				
Receives SSI	134,484	44.1%	16,944	38.1%
1. As defined in the HUD data source.				

Figure 7 presents a comparison of HUD-assisted individuals age 65 or older[8] who were linked to Medicaid or Medicare enrollment files to those that were not linked based on the restrictive match rate. In other words, we compared the 87% of HUD-assisted individuals age 65 or older who linked to the 13% who did not link to any CMS data source. Individuals who linked to Medicare or Medicaid were more likely to be White (22% vs. 15% of individuals who did not link);[9] less likely to live in public housing (29% vs. 38%); and more likely to receive Supplemental Security Income (SSI) (44% vs. 38%).

C. Estimate HUD-Assisted Medicare Beneficiaries with Enrollment in Part D Subsidy Assistance Programs or Medical Savings Program (i.e., Medicaid)

As detailed in an October 2012 Center on Budget and Policy Priorities (CBPP) memo,[10] HUD-assisted individuals may have unreimbursed medical expenses deducted from their income for the purpose of determining the level of assistance provided by HUD. According to the CBPP, approximately 700,000 assisted households claim such expenses, which increase HUD rental subsidy costs by $400-$500 million per year. Therefore, HUD is interested in understanding what proportion of HUD-assisted Medicare beneficiaries (defined as HUD-assisted individuals who linked to Medicare based on the restrictive match criteria) are enrolled in programs that could reduce their out-of-pocket health care expenses and therefore reduce HUD's costs. These programs include:

1. **Medicare Part D (drug coverage) Low Income Subsidy (LIS)**. Medicare Part D provides coverage for prescription medications and the LIS program assists beneficiaries with paying the premium and out-of-pocket expenses for their medication.

2. **Medicare Savings Program (MSP)**. This is more commonly referred to as being a Medicare and Medicaid enrollee (MME) or dually eligible. Medicare beneficiaries may be eligible for Medicaid to assist with out-of-pocket Medicare expenses (premiums and copayments) and to receive Medicaid-covered services that are not covered by Medicare, including and importantly long-term services and supports.

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[8] We examined HUD-assisted individuals age 65 and older since most individuals over age 65 would be eligible for Medicare based on age (more than 97% of Americans age 65 and older are enrolled in Medicare, http://www.ssa.gov/history/pdf/WhatMedicareMeant.pdf).

[9] For the sample included in Figure 6, HUD-assisted individuals age 65 and older, over 40% of the sample has unknown/declined to report race/ethnicity.

[10] Center on Budget and Policy Priorities. October 2012. Reducing HUD Program Costs Associated with the Medical Deduction Policy.

Figure 8 presents the proportion of HUD-assisted Medicare beneficiaries age 65 years or older enrolled in Part D LIS and Medicaid.

- Approximately 90% of the Medicare beneficiaries had Part D coverage (data not shown, see *Appendix D*). Among those with Part D coverage, **80% received premium and out-of-pocket assistance** through the LIS Program.

- **Approximately 68% of Medicare beneficiaries were dually enrolled in Medicare and Medicaid**. Almost 89% of those dually enrolled in Medicare and Medicaid were receiving Medicaid assistance with Medicare expenses and fully eligible for Medicaid-covered services.

FIGURE 8. HUD-Assisted Medicare Beneficiaries (Age 65+): Part D LIS Status and Medicaid Participation
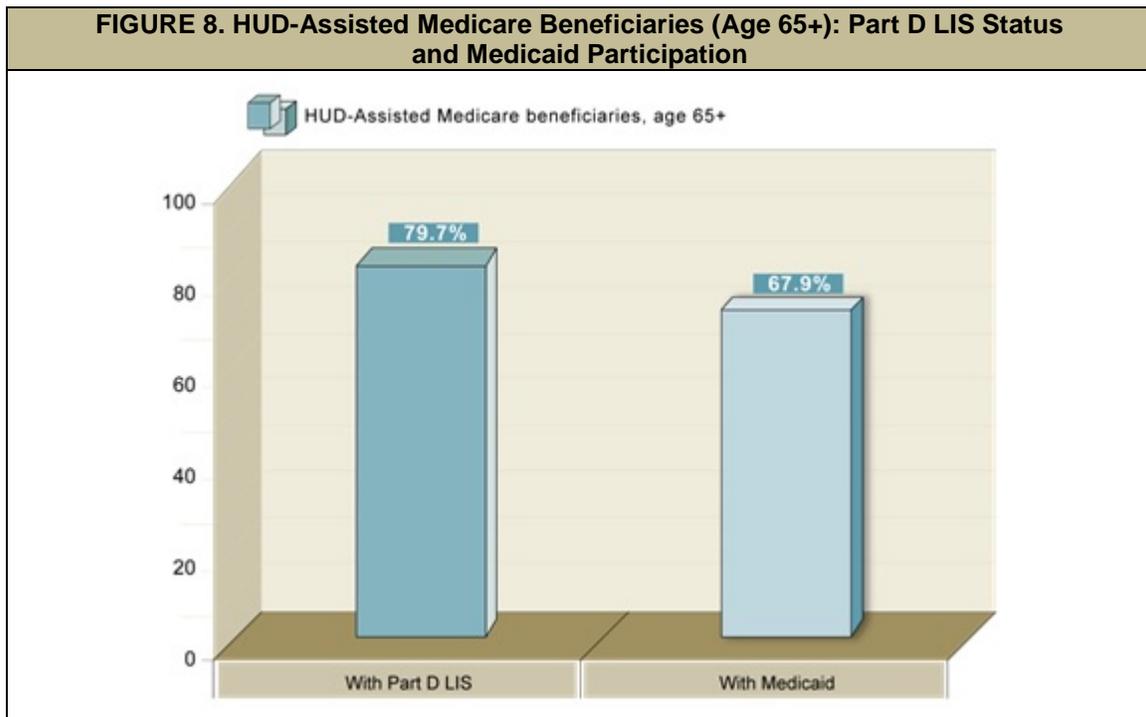
It is important to note that the results presented in Figure 8 above are the proportion of all HUD-assisted Medicare beneficiaries age 65+ who match based on the restrictive match criteria. It is not the proportion of HUD-assisted Medicare beneficiaries *who are eligible* for these programs based on national criteria for Part D LIS and criteria established by each state for Medicaid benefits. In other words, we would not expect the proportion to be 100% as not all HUD-assisted Medicare beneficiaries are eligible for these programs because the income criteria for HUD-assisted housing can be higher than that for health insurance assistance. In fact, among HUD-assisted individuals, an examination of the proportion of Medicare beneficiaries dually enrolled in Medicaid, where enrollment should be automatic for the Medicare Part D prescription drug LIS, found 99% received LIS, while only about one-third of those with Medicare and no Medicaid coverage had this coverage.

D. Compare Medicare and Medicaid Payment and Utilization for HUD-Assisted Beneficiaries and Unassisted Beneficiaries in the Community in the 12 Study Jurisdictions

After we identified the HUD-assisted individuals who were Medicare and/or Medicaid beneficiaries in 2008, the next objective was to compare HUD-assisted Medicare beneficiaries to unassisted beneficiaries in the community with regards to enrollment, chronic conditions, health care payment and utilization. Although our overall study focused on individuals age 62 and older receiving housing assistance, we narrowed this analysis to individuals age 65 and older because the vast majority of individuals age 65 and older have Medicare coverage. Before comparing groups of beneficiaries, we first refined our study sample of Medicare beneficiaries (both HUD-assisted and unassisted beneficiaries in the 12 study jurisdictions).

Figure 9 presents a graphical depiction of the inclusion criteria, regardless of age. Medicare beneficiaries had to be enrolled in Part A Hospital and Part B Physician Services for all 12 months of 2008 or up until death and have no Medicare managed care (i.e., Medicare Part C or Medicare Advantage)[11] enrollment in 2008. This reduced the sample of Medicare beneficiaries by 38%, down to 3.6 million. Approximately 7% of the Medicare beneficiaries were HUD-assisted individuals and 93% were unassisted in the community.

FIGURE 9. Inclusion Criteria for HUD-Assisted and Unassisted Medicare Beneficiaries for Payment and Utilization Comparison in 12 Jurisdictions, All Ages, 2008

All Medicare beneficiaries
N=5,752,662

Enrolled in A&B for entire 12 month period or up until death
N=4,799,074 (83%)

Medicare Fee-for-service (FFS) only
N=3,562,032 (62%)
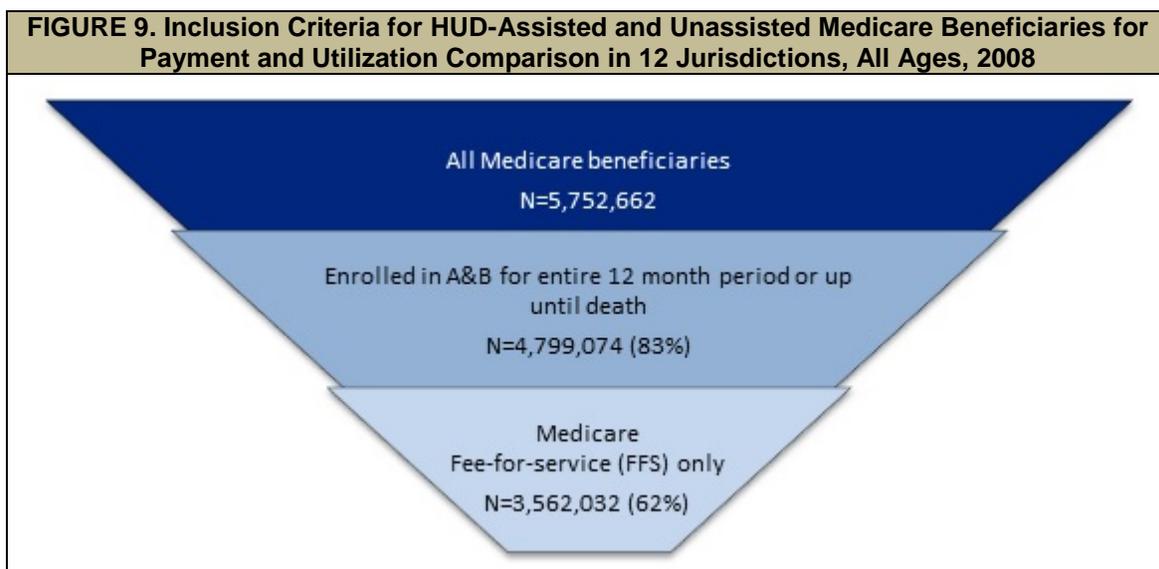
We expected HUD-assisted beneficiaries to differ dramatically from unassisted beneficiaries in the community with regards to health status, utilization, and payment given the differences in demographic factors (e.g., race, income) and Medicare and Medicaid program eligibility due to low income (e.g., Part D LIS and Medicaid participation defined above). This was supported by preliminary comparisons of HUD-

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[11] We excluded individuals with any managed care enrollment as the CMS administrative data only has enrollment for individuals in managed care, but does not have their claims data (i.e., health care cost and utilization data).

assisted Medicare beneficiaries age 65+ and unassisted Medicare beneficiaries age 65+ in the community. We found:

- After limiting our sample to HUD-assisted Medicare beneficiaries with continuous enrollment in Medicare Parts A and B with no Medicare managed care during 2008, **approximately 70% of HUD-assisted Medicare fee-for-service (FFS) beneficiaries age 65+** were dually enrolled in Medicaid compared to **only 13% of unassisted** Medicare FFS beneficiaries in the community.

- The average total medical and prescription drug per member per month (PMPM) Medicare payment was **$1,479 for HUD-assisted Medicare FFS beneficiaries** age 65+ compared to only **$937 for unassisted Medicare FFS beneficiaries** age 65+ in the community.

The higher expenditures for HUD-assisted Medicare beneficiaries likely reflects the much higher proportion of MMEs in the HUD-assisted sample. According to a recent study by the Kaiser Family Foundation, spending for MMEs was 1.8 times higher than for Medicare/No Medicaid counterparts.[12] Based on this knowledge, we stratified the Medicare beneficiaries into five sub-groups in an attempt to group similar beneficiaries into distinct samples to reduce variability between the HUD-assisted beneficiaries and the unassisted beneficiaries when comparing their Medicare enrollment characteristics, payments, and utilization. See *Appendix C* for detail on stratification and definitions for all five sub-groups. In this summary report, we present the results for the following two sub-groups:

- **Sub-group A1 (MMEs)**: MMEs, Age 65+, with no Medicare skilled nursing facility (SNF) or Medicaid nursing facility[13] use in 2008.

- **Sub-group C1 (Medicare only)**: Medicare beneficiaries with no Medicaid enrollment, age 65+, no SNF use in 2008.

D1. *Comparison of HUD-Assisted MMEs and Unassisted MMEs in the Community, Age 65+ in 12 Study Jurisdictions, 2008 (Sub-group A1)*

In 2008 in the 12 study jurisdictions, there were **112,045 HUD-assisted MMEs** and **249,490 unassisted FFS MMEs** in the community age 65+. **Figure 10**, **Figure 11**, and

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[12] Kaiser Family Foundation, Issue Brief, "Medicare's Role for Dual Eligible Beneficiaries", Gretchen Jacobson, Tricia Neuman, and Anthony Damico, April 2012.

[13] Given that beneficiaries residing in a nursing facility, for even a portion of the year, have poorer health status and therefore utilize more health care services compared to beneficiaries not in a nursing facility, accounting for that use becomes an important control factor. Due to incomplete information regarding the use of nursing facilities in the data available to us for this study and the fact that a higher proportion of individuals in the community sample used nursing facilities than in the HUD-assisted sample based on what we could observe (15% of unassisted beneficiaries in the community used Medicare SNF services compared to 8% HUD-assisted beneficiaries), we elected to remove all individuals with any nursing facility use that we could identify from both samples.

Figure 12 present the key findings when comparing HUD-assisted MMEs and unassisted MMEs in the community.

Figure 10 compares the count of chronic condition groupings among MMEs. HUD-assisted MMEs, on average, experience greater chronic illness than unassisted MMEs in the community.

- HUD-assisted MMEs are more likely to have multiple chronic diseases; 55% have five or more compared to 43% of unassisted MMEs in the community.

- The prevalence of eight of the nine chronic condition categories is also higher among HUD-assisted Medicare beneficiaries (data not shown, see *Appendix D*). The chronic condition groupings are: Cardiovascular; Cancer; Endocrine and Renal; Alzheimer's-related; Depression; Musculoskeletal; Pulmonary; Opthalmic; and, Other (Anemia, Hyperlipidemia, Hyperplasia, Hypertension).

FIGURE 10. Medicare and Medicaid Enrollees (MMEs) with Chronic Conditions (Age 65+), 2008, 12 Study Jurisdictions
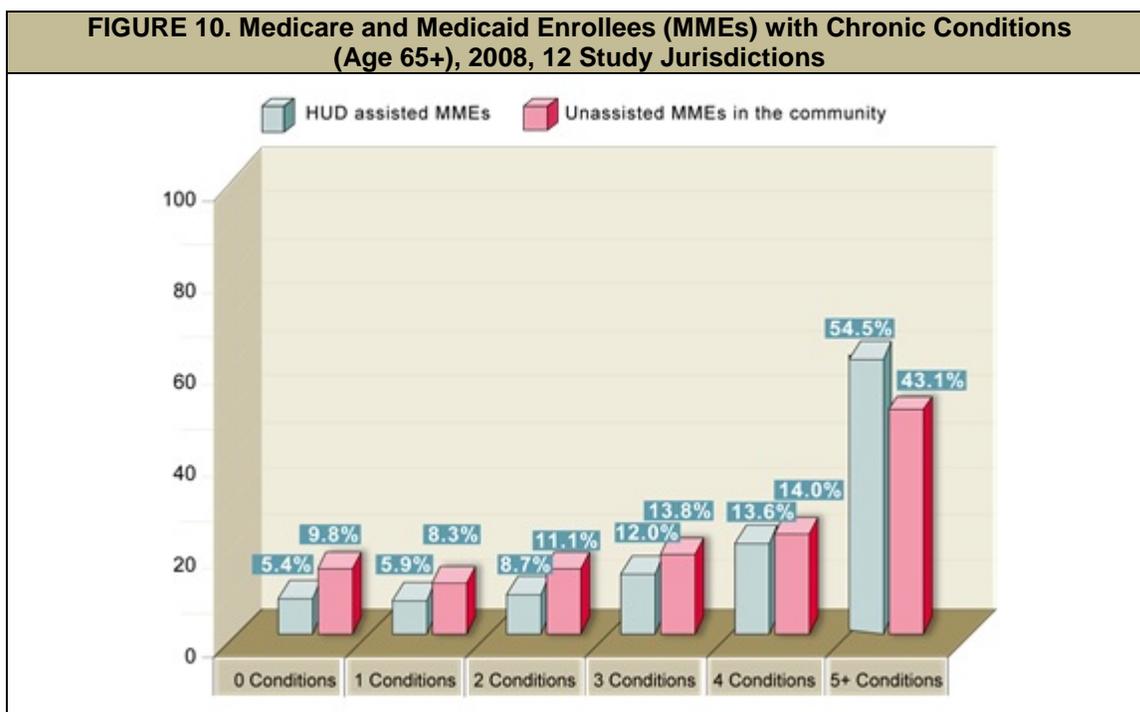
Figure 11 provides a comparison of health care service utilization between HUD-assisted FFS MMEs and FFS unassisted MMEs in the community. HUD-assisted MMEs were higher utilizers of health care services. With the exception of dialysis, the difference in utilization was statistically significant for all health care services.

- The **higher utilization for HUD-assisted MMEs was most notable** for home health visits (31% higher), ambulatory surgery center (ASC) visits (45% higher), other procedures (78% higher), durable medical equipment (DME) (22% higher), and Part B and D drugs (22% and 24% higher, respectively).

- HUD-assisted MME beneficiaries also had a 26% higher rate of physician office visits and 13% higher rate of emergency department visits than unassisted MME beneficiaries.

- As expected, this higher utilization resulted in 16% higher average medical and pharmacy PMPM Medicare payments for HUD-assisted MME beneficiaries than unassisted MME beneficiaries ($1,222 vs. $1,054) (data not shown, see *Appendix C*).

FIGURE 11. Comparison of Fee-for-Service HUD-Assisted MME and Unassisted MME Medicare Health Care Utilization			
Medicare Services Annual Utilization per 1000 Member Months[1]	HUD-Assisted MME (N=112,045)	Non-HUD-Assisted MME (N=249,490)	Ratio of HUD-Assisted vs. Unassisted MMEs
	Mean	Mean	
Total admissions	32.8	30.9	1.06**
Acute stay admissions	31.4	29.4	1.07**
Other inpatient admissions[2]	1.4	1.6	0.90**
Hospital readmissions	5.2	4.9	1.06*
Medicare HH visits	581.5	445.5	1.30*
Medicare hospice days	36.9	208.1	0.18*
Hospital outpatient visits[3]	686.5	590.5	1.16**
Total ED visits	58.4	51.6	1.13**
ED visits without an admission	36.6	30.6	1.19**
ED visits resulting in an admission	21.9	21.0	1.04**
Physician office visits	1,652.3	1,307.9	1.26**
ASC visits	14.5	10.0	1.45**
Dialysis events	17.0	17.3	0.98
Anesthesia events	27.8	23.7	1.17**
Imaging events	510.5	420.1	1.21**
Test events	1,762.2	1,428.5	1.23**
Other procedures	1,464.6	821.6	1.78**
DME	369.2	301.4	1.22**
Part B drugs	296.1	241.8	1.22**
Part D[4] drugs	5,080.1	4,094.3	1.24**

NOTES:
1. Utilization per 1000 member months calculated as number of total services across all MMEs divided by number of months enrolled for all MMEs in 2008 multiplied by 1000.
2. Non-acute inpatient settings include long-term care settings, like inpatient rehabilitation facilities.
3. This variable is the count of unique revenue center dates (as a proxy for visits) in the hospital outpatient setting for a given year.
4. Limited to Medicare beneficiaries with Part D coverage.

** $p<0.01$; * $p<0.05$

Figure 12 compares the utilization of Medicaid-covered services[14] by FFS HUD-assisted MMEs and unassisted MMEs in the community. HUD-assisted MMEs use a much greater amount of Medicaid-covered services than unassisted MMEs in the community. It should be noted that one driver of the higher utilization may be that a higher proportion of HUD-assisted MMEs were eligible for full Medicaid benefits than unassisted MMEs in the community (91% vs. 85%, respectively):

- HUD-assisted MMEs used over **100% more Personal Care services**,[15] 80% more "other HCBS", and over 67% more DME services covered by Medicaid than unassisted MMEs in the community. This suggests that the poorer health status of HUD-assisted MMEs increases their likelihood of needing HCBS and/or relationships between the property management and community supports make these services more available to HUD-assisted individuals.

- On the other hand, **unassisted MMEs in the community used 60% more Residential Care settings than HUD-assisted MMEs**. Residential care settings, including assisted living facilities, have traditionally provided assistance and oversight to persons with physical and mental impairments who cannot or choose not to live at home alone.[16]

- Due to the higher utilization of services, HUD-assisted MMEs Medicaid PMPM of $1,180 was 32% higher than unassisted MMEs PMPM of $895 (data not shown, see *Appendix D*).

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[14] Services only available through Medicaid health insurance, not covered by Medicare. We excluded MMEs with Medicaid managed care enrollment from the calculation of Medicaid cost and utilization because we do not have their complete health care cost and utilization data (similarly to those with Medicare managed care or Medicare Advantage.

[15] Personal Care Services include a range of human assistance provided to persons with disabilities and chronic conditions of all ages, enabling them to accomplish tasks they would normally do for themselves if they did not have a disability, including ADLs (such as eating, bathing, dressing, and bladder and bowel requirements) or IADLs (such as taking medications and shopping for groceries).

[16] Although Medicaid does not cover room and board services provided in residential care facilities, other components of residential care -- for example, personal care, 24-hour services, and chore services -- can be covered. Residential care includes group, family or individual home residential care; cluster residential care; and therapeutic residential care services, assisted living, supported living, and nigh supervision. (DME and services for mental health or substance abuse treatment are excluded.) We would expect HUD-assisted beneficiaries to be less likely to use Medicaid residential services because: (1) only under limited circumstances would HUD properties be considered residential for Medicaid purposes -- assisted living conversion and 811 group homes; and (2) few housing voucher recipients use them for assisted living.

FIGURE 12. Comparison of Fee-for-Service HUD-Assisted MMEs and Unassisted MMEs Medicaid Health Care Utilization[1]			
Medicare Service Utilization per 1000 Member Months	**HUD-Assisted MMEs with Medicaid FFS (N=106,764)**	**Unassisted MMEs with Medicaid FFS (N=227,186)**	**Ratio of HUD-Assisted vs. Unassisted MMEs**
	Mean	**Mean**	
Personal Care services	4,512.4	2,149.1	2.09**
Residential care	38.9	63.7	0.61**
DME	380.0	227.7	1.67**
Other HCBS[2]	3,309.8	1,840.6	1.79**

NOTES:
1. Limited to individuals with no Medicaid managed care enrollment since our data do not include managed care utilization and cost.
2. Private duty nursing, adult day care, HH, rehab, targeted case management, transportation, and hospice.

** p<0.01

D2. Comparison of HUD-Assisted Medicare/No Medicaid[17] Beneficiaries and Unassisted Medicare/No Medicaid Beneficiaries in the Community, Age 65+ in 12 Study Jurisdictions, 2008 (Sub-group C1)

FIGURE 13. HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Medicare/No Medicaid Beneficiaries, 2008, by Gender
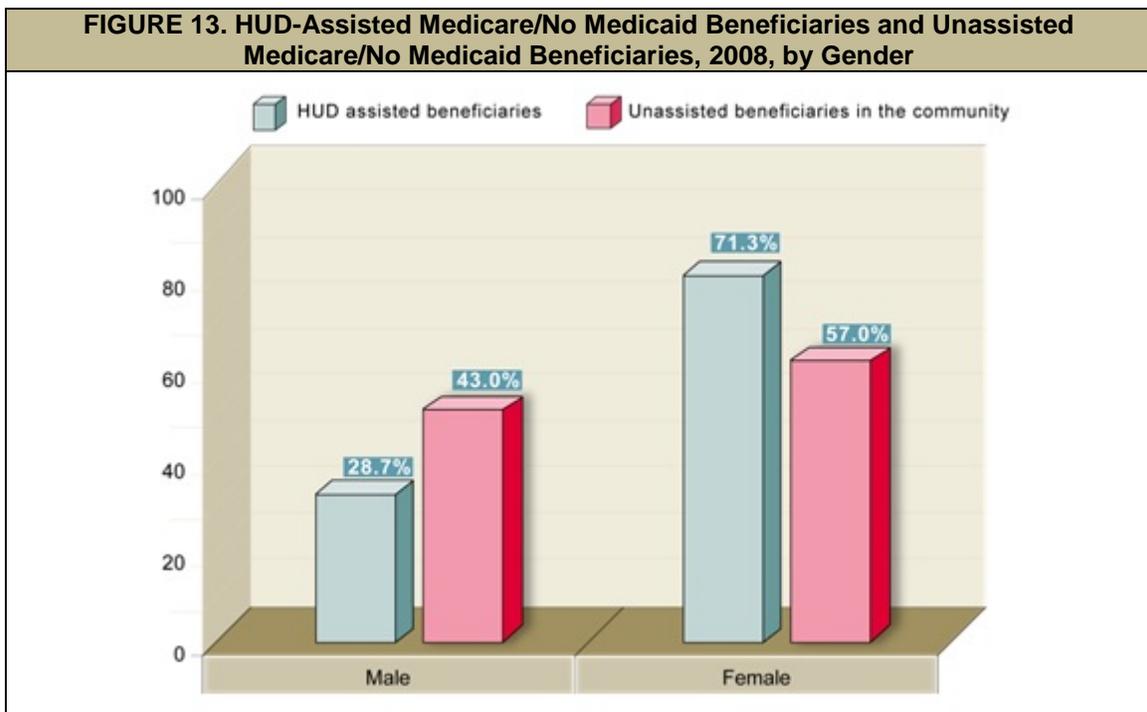
During 2008 in the 12 study jurisdictions, there were **46,806 FFS HUD-assisted Medicare/No Medicaid beneficiaries** and **2,318,394 unassisted beneficiaries** in the community age 65+. **Figure 13**, **Figure 14** and **Figure 15** present the key findings

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[17] No Medicaid eligibility; in other words, excluding individuals who are dually eligible for both Medicare and Medicaid.

when comparing HUD-assisted Medicare beneficiaries and unassisted beneficiaries in the community. Unlike the previous comparison of MMEs, these estimates do not control for income. We would expect that the HUD-assisted Medicare/No Medicaid beneficiaries would generally have lower income and experience greater social and economic constraints to good health than their community counterparts.

FIGURE 14. HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Medicare/No Beneficiaries, 2008, by Race/Ethnicity

* Other category includes categories of Asian/Pacific Islander, American Indian/Alaska Native, Other, Unknown. Race/ethnicity is based on CMS enrollment data.
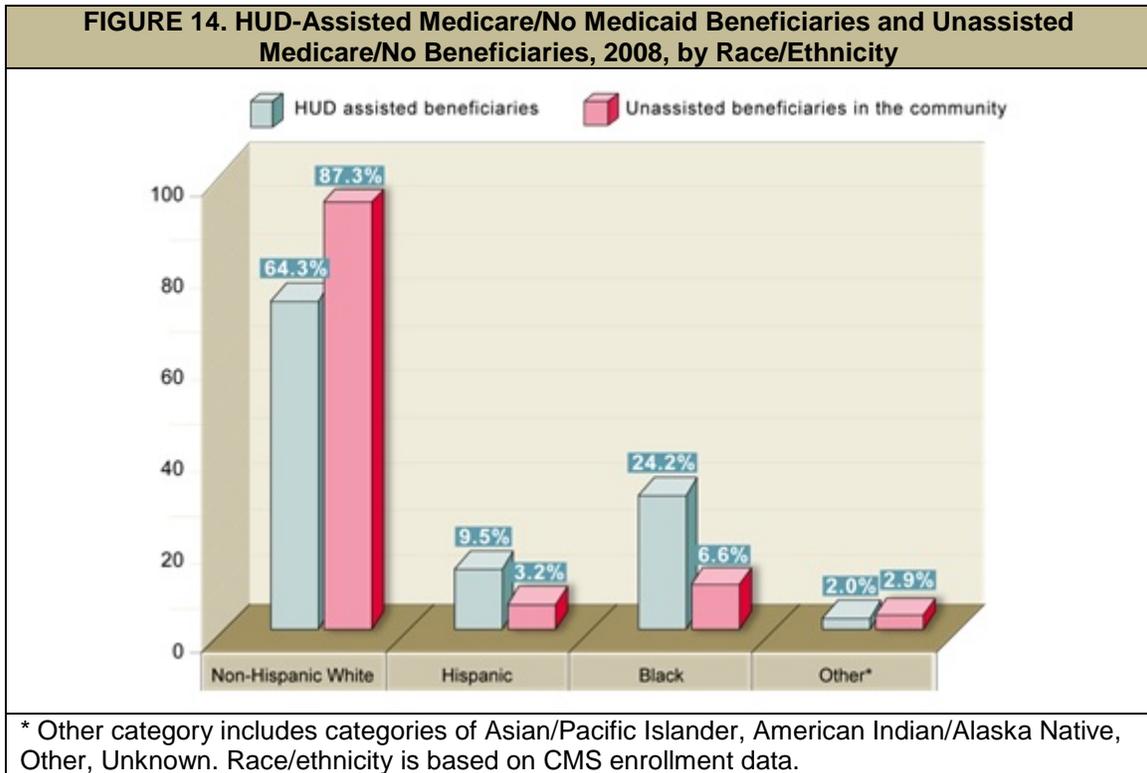
Figure 13, **Figure 14**, and **Figure 15** summarize the distribution of HUD-assisted Medicare beneficiaries and unassisted Medicare beneficiaries in the community by various demographic characteristics. As expected, the profile of the HUD-assisted beneficiaries does differ from the unassisted beneficiaries:

- Medicare/No Medicaid HUD-assisted beneficiaries are much more likely to be female (71% vs. 57%), Black (24% vs. 7%), and over age 85 years (23% vs. 16%) than unassisted beneficiaries (age data not shown, see *Appendix D*).

- Over 87% of unassisted beneficiaries in the community were non-Hispanic White compared to only 64% of HUD-assisted beneficiaries.

- HUD-assisted Medicare/No Medicaid beneficiaries are also more likely to have received Part D LIS (32% vs. 6%) than unassisted beneficiaries in the community.

FIGURE 15. Fee-for-Service HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Medicare/No Medicaid Beneficiaries, 2008, by Part D LIS Status
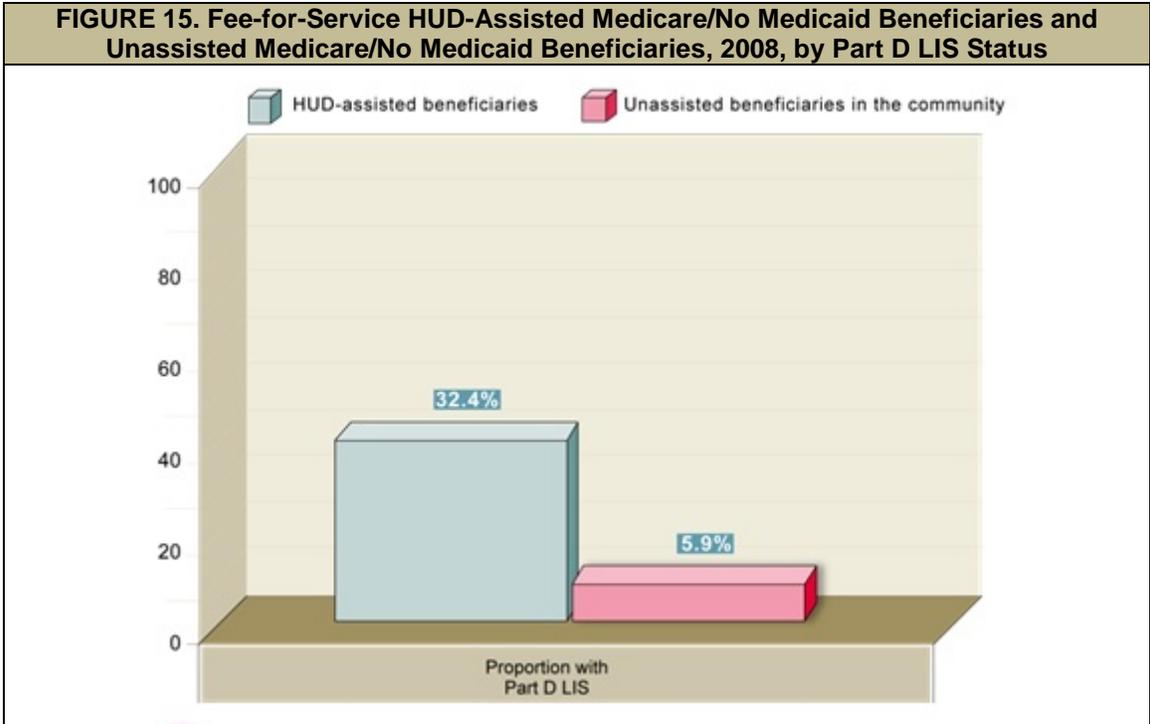
Figure 16 shows the proportion of HUD-assisted and unassisted Medicare beneficiaries with chronic conditions. Unlike the HUD-assisted MMEs age 65 or older (Sub-group A1 above), the HUD-assisted Medicare/No Medicaid beneficiaries of the same age group are more similar to the unassisted Medicare/No Medicaid beneficiaries with regards to health status.

- Approximately 14% of HUD-assisted Medicare/No Medicaid beneficiaries had zero chronic conditions compared to 13% of unassisted Medicare/No Medicaid beneficiaries. However, 38% of HUD-assisted Medicare/No Medicaid beneficiaries had five or more conditions compared to only 33% of unassisted Medicare/No Medicaid beneficiaries in the community.

- The prevalence of chronic conditions was not consistently higher for the HUD-assisted Medicare/No Medicaid beneficiaries. In fact, the unassisted Medicare/No Medicaid beneficiaries had a higher proportion of cancer (10% vs. 9%) and ophthalmic conditions (37% vs. 32%).

FIGURE 16. HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Beneficiaries, Age 65+, 2008, by Chronic Condition Category Count and Prevalence				
CCW Condition	**HUD-Assisted Medicare Beneficiaries**		**Unassisted Medicare Beneficiaries**	
	N	**%**	**N**	**%**
Prevalence of Chronic Conditions	46,806	100.0%	2,318,394	100.0%
0 Conditions	6,624	14.2%	299,936	12.9%
1 Condition	3,972	8.5%	249,962	10.8%
2 Conditions	5,245	11.2%	312,462	13.5%
3 Conditions	6,472	13.8%	358,219	15.5%
4 Conditions	6,669	14.2%	339,586	14.6%
5 or More Conditions	17,824	38.1%	758,229	32.7%
Prevalence of Chronic Conditions by Category				
Cardiovascular	20,638	44.1%	952,061	41.1%
Cancer	4,105	8.8%	238,416	10.3%
Endocrine and Renal	19,313	41.3%	800,924	34.5%
Alzheimer's-related	3,543	7.6%	179,304	7.7%
Depression	3,930	8.4%	167,119	7.2%
Musculoskeletal	15,494	33.1%	719,065	31.0%
Pulmonary	6,777	14.5%	246,619	10.6%
Ophthalmic	15,098	32.3%	847,512	36.6%
Other (Anemia, Hyperlipidemia, Hyperplasia, Hypertension)	35,030	74.8%	1,696,319	73.2%

Figure 17 provides a comparison of Medicare health care utilization between the Medicare/No Medicaid HUD-assisted beneficiaries and unassisted beneficiaries in the community. The utilization by HUD-assisted beneficiaries was higher for some services and lower for others when compared to unassisted Medicare/No Medicaid beneficiaries. In particular:

- HUD-assisted Medicare/No Medicaid beneficiaries used **42% more emergency room visits** per 1000 member months than unassisted beneficiaries.

- The admission rate was 19% higher and the readmission rate was 17% higher for HUD-assisted Medicare/No Medicaid beneficiaries.

- On the other hand, HUD-assisted Medicare/No Medicaid beneficiaries were more likely to not have any office visits. Approximately 13% of HUD-assisted beneficiaries did not have any office visits during 2008 compared to 9% of unassisted Medicare/No Medicaid beneficiaries (data not shown, see *Appendix D*).

- Overall, the **Medicare PMPM was 8% higher** for HUD-assisted Medicare/No Medicaid beneficiaries than unassisted Medicare/No Medicaid beneficiaries ($617 vs. $574).

Medicare Services Annual Utilization per 1000 Member Months	HUD-Assisted Medicare Beneficiaries (N=46,806)	Unassisted Medicare Beneficiaries (N=2,318,394)	Ratio of HUD-Assisted vs. Unassisted
FIGURE 17. Comparison of Fee-for-Service HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Medicare/No Medicaid Beneficiaries' Medicare Health Care Utilization			
	Mean	Mean	
Total Admissions	23.0	19.3	1.19**
Acute stay admissions	21.7	18.2	1.19**
Other inpatient admissions[1]	1.3	1.1	1.20**
Hospital Readmissions	2.7	2.3	1.17**
Medicare HH visits	220.5	136.0	1.62**
Medicare hospice days	36.5	77.6	0.47**
Total outpatient visits	444.8	409.5	1.09**
Total ED visits	43.0	30.4	1.42**
ED visits without an admission	27.2	18.8	1.45**
ED visits resulting in an admission	15.8	11.6	1.37**
Physician office visits	1,145.2	1,129.1	1.01*
ASC visits	12.7	16.0	0.79**
Dialysis events	6.5	4.8	1.36**
Anesthesia events	25.9	29.2	0.89**
Imaging events	378.2	382.2	0.99*
Test events	1,347.0	1,416.9	0.95**
Other procedures	527.2	635.4	0.83**
DME	180.7	139.0	1.30**
Part B Drugs	205.7	242.2	0.85**
Part D Drugs	2983.9	2496.0	1.20**

1. Non-acute inpatient settings include long-term care settings, like inpatient rehabilitation facilities.

** p<0.01; * p<0.05

V. DISCUSSION

To our knowledge, this study was the first attempt to link the HUD individual tenant-level and CMS beneficiary level administrative data (enrollment and payment and utilization claims data). This study demonstrates the feasibility of linking these rich data sources to conduct numerous informative analyses that can shed light on the advisability of investing in programs that might improve the health and well-being of individuals with HUD-assisted housing. This study also provides descriptive comparisons of HUD-assisted Medicare beneficiaries to unassisted Medicare beneficiaries, highlighting areas of potential future analyses.

A. Summary of Results

Match Rate

We found that among HUD-assisted individuals age 65 or older in 2008, 93% matched to Medicare based on SSN only; 85% matched to Medicare when requiring a match on SSN, gender, and date of birth.

HUD-Assisted Medicare Beneficiaries Enrollment in Part D Subsidy Assistance Programs or Medicaid

Some HUD-assisted Medicare beneficiaries age 65 and older not enrolled in programs that could reduce their out-of-pocket health care expenses, such as the Medicare Part D (drug coverage) LIS and MSP (being an MME, may be costing HUD). Approximately 68% of HUD-assisted Medicare beneficiaries were dually enrolled in Medicare and Medicaid. Among HUD-assisted Medicare beneficiaries with Part D coverage, 80% received premium and out-of-pocket assistance. We would not expect the proportion to be 100% as not all HUD-assisted Medicare beneficiaries are eligible for these programs because the income criteria for HUD-assisted housing can be higher than that for health insurance assistance. We plan to examine the issue of participation among eligible individuals in future analyses.

Compare Medicare and Medicaid Payment and Utilization

The average total FFS medical and prescription drug PMPM Medicare paid amount was $1,479 for HUD-assisted Medicare beneficiaries age 65 and older compared to only $937 for unassisted Medicare beneficiaries in the community. The higher expenditures for HUD-assisted Medicare beneficiaries likely reflects the much higher proportion of MMEs in the HUD-assisted sample than in the unassisted beneficiaries in the community (70% vs. 13%), as spending for MMEs is almost two times higher than for Medicare/No Medicaid counterparts.

Given the difference in demographic characteristics, health conditions, and MME enrollment among HUD-assisted beneficiaries and unassisted beneficiaries in the community, we created similar sub-groups for comparison, including MMEs age 65+ with no SNF or nursing facility use and Medicare/No Medicaid age 65+ with no SNF use.

Fee-for-Service MME, Age 65+, No SNF/Nursing Facility Use

HUD-assisted MMEs age 65+ had more chronic conditions which translated into higher health care utilization and payments than unassisted MMEs in the community. HUD-assisted MME beneficiaries' average Medicare FFS PMPM was $1,222 compared to $1,054 PMPM for unassisted beneficiaries. This was driven by higher utilization for all services, with the exception of hospice. Most notably, HUD-assisted MMEs had more home health visits (31% higher), ASC visits (45% higher), physician office visits (26%), and emergency department visits (13%). These results are strictly descriptive. In other words, they are not adjusted for demographic characteristics or health care conditions beyond MME status that are known to be associated with health care utilization.

We found similar results when comparing Medicaid-covered FFS health care service utilization and payment by MMEs. HUD-assisted MMEs Medicaid FFS average PMPM was 32% higher than unassisted MMEs ($1,180 vs. $895). HUD-assisted MMEs used over 200% more Personal Care services, 80% more "other HCBS", and over 67% more DME services covered by Medicaid than unassisted MMEs in the community. This suggests that the poorer health status of HUD-assisted MMEs increases their likelihood of needing HCBS and/or relationships between the property management and community supports make these services more available to HUD-assisted individuals. On the other hand, unassisted MMEs in the community used 60% more Residential Care services, which includes assisted living, than HUD-assisted MMEs.

Fee-for-Service Medicare/No Medicaid Beneficiaries, Age 65+

While the comparison among MMEs found that HUD-assisted beneficiaries had more chronic conditions and higher health care utilization and Medicare payment almost across all health care services, the results of the Medicare/No Medicaid beneficiary comparison was mixed. Ultimately, HUD-assisted Medicare/No Medicaid beneficiaries had 8% higher Medicare PMPM than unassisted beneficiaries. The HUD-assisted FFS Medicare/No Medicaid beneficiaries had substantially higher utilization of costly services. HUD-assisted beneficiaries used 42% more emergency room visits, 19% more admissions, and had a 17% higher readmission rate. On the other hand, 87% of HUD-assisted beneficiaries had a physician office visit compared to 91% of unassisted beneficiaries. Unlike the previous comparison of MMEs, these estimates do not control for income. We would expect that the HUD-assisted Medicare/No Medicaid beneficiaries would generally have lower income and experience greater social and economic constraints to good health than their community counterparts. Similar to

above, these results are descriptive only and, therefore, additional analyses would need to be conducted to determine if the results remain when controlling for differences among the two samples.

B. Limitations

While this study provides insight into the feasibility of linking HUD and CMS administrative data and a preliminary analysis of health and health care utilization among elderly HUD-assisted individuals who are Medicare beneficiaries, this study is not without limitations. First, because New York represents over half the individuals studied, the differences in New York's assisted population could account for a number of the observed differences. Thus, the findings of this report are only suggestive of future paths for research. Second, the Medicare plan paid amounts are not standardized for geographic differences in payment rates. Therefore, care must be used when comparing average payment for a particular service across the geographies. However, the distribution by the 12 geographies of the HUD-assisted beneficiaries and the unassisted beneficiaries was similar in our datasets reducing concerns about payments being driven by differences in geography. Third, we were unable to identify all nursing facility stays, regardless of payer, with our current data sources. Therefore, we had to eliminate any Medicare beneficiaries with any Medicaid nursing facility or Medicare SNF stay as a proxy for nursing facility use. While this only reduced our Medicare/No Medicaid sample by 5%, it reduced our sample of MMEs by 19%.

Finally, our analyses are descriptive and no policy recommendations should be derived based on these results alone. The results are, however, a starting point. This research demonstrates that it *is* feasible to match health and housing agency administrative data and suggests that while we have much to learn about the relationship between housing and health, the methods demonstrated here can be used to build that knowledge cost-effectively and in ways that may ultimately improve both housing and health program effectiveness. See future analysis for recommendations related to addressing these limitations.

C. Future Analysis

This study demonstrates that it is feasible to link HUD tenant data to CMS administrative data. The descriptive results summarized above highlight key areas for future analysis to better understand the health and health care utilization of elderly HUD-assisted individuals enrolled in Medicare. This includes supplementing current data sources with additional CMS data, refining matching algorithms and study samples to better determine HUD-assisted individuals' eligibility and enrollment in Medicare programs, and conducting multivariate regressions to determine if the differences observed in descriptive comparisons remain after adjusting for confounders.

1. **Refine match algorithm**. Currently, we matched the datasets based on SSN and then SSN, gender, and date of birth without any discrepancies. We can refine the algorithms to require more than just a match on SSN, but not be as conservative as the "restrictive match." For instance, we may want to allow some differences in date of birth (i.e., consider it a match if mm/yy aligns).

2. **Look more closely at the eligibility/enrollment issue to estimate missed opportunities for HUD-assisted elderly individuals to enroll in CMS programs**. As highlighted above, we calculated the proportion of *all* HUD-assisted Medicare beneficiaries, age 65 or older, receiving Part D LIS and dually enrolled in Medicaid. Future analyses could limit the denominator to HUD-assisted beneficiaries eligible for the Part D LIS program and Medicaid program separately to determine what proportion of those eligible were enrolled (i.e., look at income in HUD data vs. enrollment in Medical Savings Program, for example). This analysis could assist HUD in identifying if under-enrollment among those eligible is a missed opportunity for HUD-assisted individuals and better estimate the potential cost savings to HUD of increasing enrollment into these programs.

3. **Conduct multivariate regressions** to determine if the differences observed in descriptive analyses above remain after adjusting for potential confounders available in the HUD and CMS data sources (e.g., race/ethnicity, age, geography, presence of chronic conditions, market characteristics).

4. **Update analysis with more recent data**. The current analysis is based on 2008 data. While we had 2009 and 2010 Medicare data, 2008 was the most recent year of Medicaid data. We could update the analysis, with the exception of Medicaid-covered service comparison, on 2010 data.

5. **Add to existing data**. We recommend appending the Minimum Data Set (MDS) detailing the utilization of Nursing Facility services, regardless of payer (Medicare, Medicaid, private payer) and the Timeline file. MDS would allow us to determine which HUD-assisted Medicare beneficiaries used nursing facility services compared to unassisted Medicare beneficiaries. The Timeline file creates a flag for each day of the year for each Medicare beneficiary. Each day is assigned as: community, community with home health care, nursing facility, SNF, inpatient, and death. This data would allow us to look at key events and paths following the event (e.g., hospital stay) and the associated payments. Finally, we suggest expanding this analysis to the entire nation. As mentioned previously, one limitation of this analysis is it is heavily influenced by the New York City metropolitan area and it is unknown if any findings are representative of HUD-assisted elderly housing recipients nationally.

APPENDIX A. DATA SOURCES AND VARIABLE DEFINITIONS

Table of Contents

Introduction

The following table provides a guide to HUD and CMS key concepts and terms.

Guide to Housing Assistance and Medicare and Medicaid Services
U.S. Department of Housing and Urban Development (HUD) Programs
HUD provides housing assistance to about 4.6 million low-income households,[1] including families with children, older adults, and people with disabilities. Tenant income eligibility is determined on the basis of AMI (generally calculated for metropolitan areas and non-metropolitan counties), adjusted for family size. Low-income families are defined as families whose incomes do not exceed 80% of the AMI and very low-income families are defined as families whose incomes do not exceed 50% of the AMI. Over three-fourths of assisted households in 2009 had extremely low incomes not exceeding 30% of AMI. HUD programs important for this report include: • Public Housing is housing administered by PHAs for eligible low-income families, older adults, and people with disabilities. Eligibility is based on annual gross income and United States citizenship or eligible immigration status.[2] About 23% of HUD-assisted households live in public housing. • Housing Choice Vouchers (also known as Section 8 vouchers) provide rent subsidies used in private rental markets and, like public housing, are administered by PHAs. Eligibility is based on income and citizenship or eligible immigration status. A family or individual receiving a voucher must pay a specified percentage (often 30%) of their income toward rent and the PHA pays the balance of rent, subject to program limits.[3] Voucher holders represent about 46% of HUD-assisted households.

Guide to Housing Assistance and Medicare and Medicaid Services (*continued*)

- Section 202 housing is the Supportive Housing for the Elderly Program. This is a program run by HUD's Office of Multifamily Housing Programs. It helps finance the development of affordable and accessible housing for low-income older adults. This capital is provided to private not-for-profit organizations and not-for-profit consumer cooperatives and need not be repaid as long as the buildings house low-income seniors.[4] The program may also provide rent subsidies.[5]
- Section 811 housing is supportive housing for persons with disabilities. It is also run by HUD's Office of Multifamily Housing Programs. The 811 program provides interest-free capital to eligible organizations to help them finance affordable housing with supportive services for low-income adults with disabilities. As with the 202 program, capital need not be repaid as long as the buildings house low-income disabled persons. The program may also provide rent subsidies.[6]
- HUD's Office of Multifamily Programs has several programs termed here "other multifamily housing," in which rental assistance is provided in conjunction with programs that subsidized developments through below-market interest financing, mortgage insurance or other forms of assistance for the new construction or rehabilitation of housing for low-income individuals. Multifamily programs, including the Section 202 and Section 811 supportive housing programs represent about 30% of HUD-assisted renters. See Appendix D for the full list of multifamily housing properties included in the data analysis.

Centers for Medicare and Medicaid Services (CMS) Programs

Medicare[7,8,9] is a federal program that provides health insurance for older adults and people with disabilities. This program was designed for people age 65 and older. This program is typically an entitlement for older adults who:
- Are eligible for Social Security Payments.
- Have made payroll tax contributions for 10 or more years.

The spouse of someone who meets these guidelines is also eligible for Medicare. Those under 65 can qualify for a couple of reasons. One of the major reasons is being entitled to Social Security disability benefits for at least two years.

There are multiple parts to Medicare, including:
- Medicare Part A ("Hospital insurance") covers acute health care needs, including hospital care, SNF care, hospice, and HH. Part A is paid for by a portion of Social Security tax. The vast majority of people age 65 and over get Medicare Part A for free as long as the individual or his/her spouse paid Medicare taxes for a minimum of 10 years and did not enroll late for Medicare, meaning he/she enrolled when you were first eligible.
- Medicare Part B ("Medical insurance") covers outpatient health care needs, including doctors' visits and other preventive care services. Individuals who elect Part B coverage must pay premiums.
- Medicare Part C, or Medicare Advantage Plans, provide you with all your Part A and Part B benefits, and often also cover prescription drugs. Private companies that contract with Medicare offer various types of plans including HMOs, Preferred Provider Organizations, Private FFS Plans, Special Needs Plans, and Medicare Medical Savings Account Plans. Individuals who elect Part C coverage must pay premiums.
- Medicare Part D provides prescription drug coverage. This is a voluntary program that is offered through private insurance companies that are under contract with Medicare, and include premiums.

Medicaid[10,11] is a public health insurance program for low-income children and adults.[12] States administer this program following federal rules, and it is jointly financed by both federal and state governments. The federal minimum standards for eligibility are:
- State coverage of core groups, which include low-income elderly individuals, people with disabilities, pregnant women, children, and parents of children.
- These core groups are subject to different minimum income levels. For older adults and people with disabilities, states typically provide coverage to those who receive SSI.

Beyond these federal minimums, states can set their own standards for eligibility within the allowed federal range and can opt to cover additional services. For example, all states provide HCBS to older adults through waivers and many states use the upper income limits of 300% of SSI for these services.

Medicaid also covers the Medicare premiums and copayments for low-income Medicare beneficiaries through the MSP. Those with income 100% or less of the FPL receive premium and copayment coverage while those with income 101-125% of the FPL receive premium coverage only.

Participants who are a part of both programs, MMEs, are often referred to as Dual Eligibles or Duals. In addition, some individuals receive full Medicaid benefits for services not included in Medicare, such as assistance with personal care and long stay nursing facility care.

NOTES:
1. Program statistics in this table come from HUD's Picture of Subsidized Households dataset for 2009, available from http://www.huduser.org/portal/datasets/picture/yearlydata.html.
2. U.S. Department of Housing and Urban Development. HUD's Public Housing Program. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/topics/rental_assistance/phprog.
3. U.S. Department of Housing and Urban Development. Housing Choice Vouchers Fact Sheet. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/topics/housing_choice_voucher_program_section_8.
4. U.S. Department of Housing and Urban Development. Section 202 Supportive Housing for the Elderly Program. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/eld202.

	Guide to Housing Assistance and Medicare and Medicaid Services (*continued*)
5.	Note that some tables refer to both "Section 202" and "Section 202/162." A small number of 202 properties contain units for non-elderly disabled that were funded with rental assistance created by Section 162 of the Housing and Community Development Act of 1987. Section 162 has been superseded by the Section 811 program, which supports housing for disabled individuals.
6.	U.S. Department of Housing and Urban Development. Section 811 Supportive Housing for Persons with Disabilities. Accessed December 2013. http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/disab811.
7.	Lind, K.D. (2012). Setting the Record Straight about Medicare. Washington, D.C.: AARP Public Policy Institute. Accessed December 2013. http://www.aarp.org/health/medicare-insurance/info-02-2012/Setting-the-Record-Straight-about-Medicare-fact-sheet-AARP-ppi-health.html.
8.	Kaiser Family Foundation. (2012). The Medicare Program at a Glance. Accessed December 2013. http://kff.org/medicare/fact-sheet/medicare-at-a-glance-fact-sheet/.
9.	Barry, P. (2013). Do You Qualify for Medicare? Accessed December 2013. http://www.aarp.org/health/medicare-insurance/info-04-2011/medicare-eligibility.html.
10.	Kaiser Family Foundation. (2013). The Medicaid Program at a Glance. http://kff.org/medicaid/fact-sheet/the-medicaid-program-at-a-glance-update/.
11.	Kaiser Family Foundation (2011). Federal Core Requirements and State Options in Medicaid: Current Policies and Issues. Accessed December 2013. http://kff.org/health-reform/fact-sheet/federal-core-requirements-and-state-options-in/.
12.	"Low-income" for Medicaid and Medicare do not follow the same guidelines as HUD. They are subject to federal and state regulations.

A. Data Sources

We based the analysis on individual-level administrative data from both HUD and CMS described in detail below.

1. HUD Individual-Level Administrative Data

We received individual-level administrative data from HUD for 2007, 2008, and 2009. The data originated from two HUD data systems. Given the study objective, we chose geographic areas that have unique public housing with services models.

The data were limited to individuals in our 12 geographic areas of interest:

1. New Haven-Milford, Connecticut
2. Bridgeport-Stamford-Norwalk, Connecticut
3. Milwaukee-Waukesha-West Allis, Wisconsin
4. San Francisco-Oakland-Fremont, California
5. Boston-Cambridge-Quincy, Massachusetts
6. Durham-Chapel Hill, North Carolina
7. Richmond, Virginia
8. New York-Northern New Jersey-Long Island
9. Columbus, Ohio
10. Akron, Ohio
11. Cleveland, Ohio
12. The entire State of Vermont

Tenant Rental Assistance Certification System (TRACS)

The TRACS system collects certified tenant data from owners and management agents of privately owned multifamily housing projects, as well as from local PHAs, and state housing agencies acting as subsidy contract administrators for HUD. The

programs covered in TRACS include: Section 8, Rent supplement, Rental Assistance Payment (RAP), Section 236 (Interest Reduction and RAPs), Section 211 Below-Market Interest Rate (BMIR) mortgage insurance, Section 202 Project Rental Assistance Contract (PRAC), Section 811 PRAC, and Section 202/162 Project Assistance Contract (PAC). Note that there are two Section 202 categories. A small number of 202 properties contain units for non-elderly disabled that were funded with rental assistance created by Section 162 of the Housing and Community Development Act of 1987. Section 162 has been superseded by the Section 811 program, which supports housing for disabled individuals. Data contain information on both an individual level (for each individual who resides in the household) and a household level.

<u>Public and Indian Housing (PIH) Information System (PIC)</u>

PHAs regularly collect and electronically submit information to HUD about the households they assist, and the housing assistance that is provided. This study limited its review of housing assistance to the following programs administered by HUD: Section 8 Certificates, Mod Rehab, Public Housing, and Section 8 Vouchers, Multifamily. Data were available for the head of household and each individual that resides in the household.

As described in **Appendix B**, we combined the TRACS and PIC data into one dataset for our sample. For individuals that appear in both datasets (across all three years this was 38,326 individuals, or 1.54%), we created only one observation per individual based on the PIC data. Individuals were excluded if an individual's move out date in a given year occurred prior to the current data year (N=194,674).

2. CMS Individual-Level Administrative Data

We received individual-level administrative data from CMS for both Medicare and Medicaid. This included information on enrollment, eligibility, presence of chronic conditions, health care payments, and health care use for individuals covered by Medicare and/or Medicaid who resided in any of our 12 geographic areas of interest. We received the most recent data available for the data sources: 2007-2009 for Medicare data and 2007 and 2008 for Medicaid data. *Note, that while we received HUD and CMS Medicare data for 2007-2009, given 2009 data was not available for CMS Medicaid data, the majority of our results are based on 2008.*

a. Medicare administrative data

We received three segments of the Medicare Beneficiary Summary File for each year of 2007-2009. Data contain information on the individual level for any Medicare beneficiary that had coverage at any point in time during the four year period. The three segments included:

- **Parts A, B, and D**. This file contains information on the beneficiary's demographic, enrollment and eligibility for Medicare coverage. For example,

variables include gender, race, first date of Medicare coverage, date of death if applicable, length of Medicare enrollment, indicator for any Medicare managed care coverage, indicator for Part D coverage, and number of months eligible for both Medicare and Medicaid.

- **Chronic Conditions**. This file contains flags for 28 chronic conditions based on validated criteria, as defined and identified by CMS. Example conditions include acute myocardial infarction, hypertension, cancers, and Alzheimer's. For each of the 28 conditions, the file includes a year-end flag, mid-year flag, and the first date of occurrence for the condition.

- **Cost and Use**. This file includes the total utilization, Medicare payments, and beneficiary payments for the given year by type of health care service for each beneficiary. Examples of health care services include utilization of outpatient emergency room, acute inpatient hospital, SNF days covered by Medicare, imaging, and DME.

b. Medicaid Administrative Data

We received the MAX Person Summary file for 2007 and 2008. The Person Summary file contains demographic characteristics, Medicaid enrollment, payment, and utilization variables for each beneficiary that had Medicaid coverage at any point in time during the calendar year.

B. Variable Definitions

The variables are organized by study objective and data source.   We created the variables for each year of data.

1. Demographic Characteristics of HUD-Assisted Housing Residents

The variables below were based on information in the HUD TRACs and PIC datasets. Each variable was created by year for all HUD-assisted housing residents in the 12 geographic areas of interest. The level of observation was beneficiary year. Variables were created for each year of HUD data -- 2007, 2008, and 2009.

- **Race/Ethnicity**. Created using the fields from TRACS (RACE_WHITE, RACE_AMRIND_ALKNTV, RACE_ASIAN, RACE_BLCK_AFR_AMR, RACE_HAWAIIAN_PI, RACE_OTHER, and RACE_DECLND_TO_RPT) and PIC (MBR_ETHNICITY, WHITE_IND, BLACK_IND, A_INDIAN_ALASKAN_IND, ASIAN_IND, and HAWAIIAN_PACIFIC_IND). Categories are: White/non-Hispanic, Black, Asian, Hispanic, North American Native, Other and Unknown/did not report.

- **Living Arrangement (individual level)**. Original values in the data included: Head of Household, spouse, child, other adult, foster child, adult co-head, live-in caretaker, other person >18 years old or full-time student, full-time student 18+, other youth under 18, did not report. We combined values to create sub-groups of interest. The categories were assigned as follows: If there was one person in a household, then they were marked as *living alone*. If there were two people in a household and one of them was a spouse, then each person in the household was marked as *living with a spouse only*. If there was a live-in aide in the household then everyone in the household was marked as *living with a live-in aide*. If there was more than one person in the household and one of the persons was a youth, foster youth, or student, and there was no live-in aide, then everyone in the household was marked as *living with children*. If there was more than one person in the household and there were no youths and no live-in aides and the people in the household were adults, co-heads, or foster adults, then everyone in the household was marked as *living with other adults*. If the people in the household had responses missing or other responses to their relationship status question (e.g., not spouse, child, student, live-in aide, etc.) then everyone in the household was marked as other living arrangement.

- **Living Arrangement (household level)**. Households are determined to be households according to the SSN of the head of household. Each person in a household is grouped together by the SSN of the household head. After grouping all of the households, the living arrangement by household was determined. Living arrangement at the household level was assigned the same way as the individual level living arrangement variable (see above). If a household appeared in both the TRACS and PIC data in the same year and they had differing living arrangements, then the household's living arrangement was marked as *unknown*.

- **Household Heads**. Heads of household are noted in both the TRACS and PIC data in relationship fields. If a person selected head of household ("H"), then they were considered a household head.

- **Disability or Handicapped Status**. Disability was set to Y/N/Not reported. The PIC field of "disability_ind" was a direct map to this variable. The TRACS data was mapped using the "special status" field. If a person's SPECIAL_STATUS_CD contained an "H" (handicapped) response, they were considered disabled, regardless of other SPECIAL_STATUS_CD responses. For example, a person could have a special status of "ESH", meaning they were an elderly (E) student (S) who was handicapped (H). Whenever handicapped (H) was one of the responses, they were considered disabled.

- **Gender**. We utilized the gender variable in TRACS/PIC dataset. Values include: male, female, unknown/did not report.

- **Age**. Age was calculated for each year. The age was calculated as the year of data (i.e., 2007, 2008) minus the birth year. Age in 2009 was used as the default when looking at individuals in all three years. If a person's age was not available in the 2009 data, their age in 2008 or 2007 was used and the appropriate amount of years were added to determine what their age would be in 2009. Two age group variables were created based on this variable: 0-18, 18-44, 45-61, 62-64,[18] 65+, unknown/not reported; and <62, 62-64, 65+, unknown/not reported.

- **Age 62+ with Children in the Home**. This variable took all persons age 62 or older from the individual living arrangement variable and noted whether that person lived with children in the household or had a different living arrangement.

- **Elderly Properties**. Each property in the TRACS data is identified using a Property ID. Similarly, each property in PIC is identified using a Development Code. For TRACs properties, a property was defined as elderly if at least 50% of the households within a Property ID had an individual age 62 or older. PHAs can explicitly designate properties as elderly. Therefore, a property in the PIC data was defined as elderly if it had an elderly designation or at least 50% of the households within a Development Code had an individual age 62 or older.

- **Subsidy Type**.[19] The PIC variable used for subsidy type was "program type" and for TRACS the variable used was "subsidy type". The variable categories created were: Public housing, Housing Choice Vouchers, Project-Based Section 8, Section 202, Section 202/162, Section 811, and Other. For PIC, program type was mapped as follows: public housing to "Public housing"; Section 8 certificates and Section 8 vouchers to "Housing Choice Vouchers"; and Mod Rehab converted to "Other". For TRACS, subsidy type was mapped as follows: Section 8 to "Project-Based Section 8", Section 202 PRAC to "Section 202", Section 202/162 PAC to "Section 202/162", Section 811 PRAC to "Section 811", and Rent supplement, RAP, Section 236, and BMIR to "Other".

- **Property Type**. We mapped the property type variable from the HUD property level data files to our individual-level files based on *Development Code* for PIC individuals and *Property ID* for TRACS individual. The PIC variable used for property type was 'program type name.' And for TRACS the variable used was "subsidy_type". The variable categories created were: "public housing", "housing choice vouchers", "other multifamily", "Section 202", "Section 811 and 202/162" and "other". "Housing choice vouchers' include all types of buildings in which housing choice voucher holders live, from a single-family home to a large apartment complex. The assignment of PIC and TRACS property types to these categories is displayed in Table A1. For the small proportion of TRACS

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[18] For purposes of determining income and rent contributions, HUD's public and assisted housing programs define "elderly" as 62 years of age and over, as provided by authorizing statutes.

[19] For further information about types of public and assisted housing, see "Programs of HUD 2011," (HUD 2013). http://www.huduser.org/portal/publications/progs_of_hud.html.

individuals whom do not have a property type assigned to their property, we assigned their property type value based on their subsidy type. The purpose of the ***property type variable*** was to assign individuals to the actual type of property in which they live whereas the ***subsidy type variable*** assigned individuals to a category based on their subsidy type regardless of the type of property in which they live. While there is much overlap between the two variables, the main difference is for individuals receiving a project-based Section 8 subsidy. The property type variable distributes individuals receiving a project-based Section 8 subsidy to the actual property in which they live -- Other multifamily, Section 202, Section 811 and 202/162, or Other. The majority of individuals with project-based Section 8 subsidies were mapped to "Other multifamily". However, a larger portion of individuals age 65+ with a project-based Section 8 subsidy were mapped to "Section 202" property.[20]

TABLE A1. Property Type Variable Definition						
	Public Housing	**Housing Choice Vouchers**	**Other Multifamily**	**Section 202**	**Section 811 & 202/162**	**Other**
PIC property types (based on development code' variable)	*Public housing*	*Section 8 vouchers*				*Other*
TRACS property types (based on "property_id" variable)			• Sec. 8 • 515/8 new construction • Sec 8 substantial rehab • Sec 8 new construction • HFDA 8/new construction • PD/8 Existing • Loan Management Set-Aside • Preservation • Pension Fund • Rent Supplement • RAP	• Section 202 with PACs • 202/8 new construction • 202/8 substantial rehab	• Section 811 with PRACs • 202/162 new construction	

- **Geographic Area**. Individuals were assigned to one of the 12 geographic areas of interest of our study based on Core Based Statistical Area (CBSA) or State Code: Vermont, New Haven-Milford, Bridgeport-Stamford-Norwalk, Milwaukee-Waukesha-West Allis, San Francisco-Oakland-Fremont, Boston-Cambridge-Quincy, Durham-Chapel Hill, Richmond, New York-Northern New Jersey-Long Island, Columbus, Akron, and Cleveland.

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[20] Note that some tables refer to both "Section 202" and "Section 202/162". A small number of 202 properties contain units for non-elderly disabled that were funded with rental assistance created by Section 162 of the Housing and Community Development Act of 1987. Section 162 has been superseded by the Section 811 program, which supports housing for disabled individuals.

Metropolitan Statistical Area (CBSA Code)	County	County Census Code	SSA State Code	SSA County Code
State of Vermont		50000	47	000
New Haven-Milford (35300)	*Connecticut*--New Haven County--state Federal Information Processing Standards (FIPS) code: 09	09009	07	040
Bridgeport-Stamford-Norwalk (14860)	*Connecticut*--Fairfield County--state FIPS code: 09	09001	07	000
Milwaukee-Waukesha-West Allis (33340)	*Wisconsin*--state FIPS code: 55		52	
	Milwaukee County	55079	52	390
	Ozaukee County	55089	52	440
	Washington County	55131	52	650
	Waukesha County	55133	52	660
San Francisco-Oakland-Fremont (41860)	*California*--state FIPS code: 06		05	
	Alameda County	06001	05	000
	Contra Costa County	06013	05	060
	Marin County	06041	05	310
	San Francisco County	06075	05	480
	San Mateo County	06081	05	510
Boston-Cambridge-Quincy (14460)	*Massachusetts*--state FIPS code: 25			
	Norfolk County	25021	22	130
	Plymouth County	25023	22	150
	Suffolk County	25025	22	160
	Middlesex County	25017	22	090
	Essex County	25009	22	040
	New Hampshire--state FIPS code: 33			
	Rockingham County	33015	30	070
	Strafford County	33017	30	080
Durham-Chapel Hill (20500)	*North Carolina*--state FIPS code: 37			
	Chatham County	37037	34	180
	Durham County	37063	34	310
	Orange County	37135	34	670
	Person County	37145	34	720
Richmond (40060)	*Virginia*--state FIPS code: 51			
	Amelia County	51007	49	030
	Caroline County	51033	49	160
	Charles City County	51036	49	180
	Chesterfield County	51041	49	200
	Cumberland County	51049	49	240
	Dinwiddie County	51053	49	260
	Goochland County	51075	49	370
	Hanover County	51085	49	420
	Henrico County	51087	49	430
	King and Queen County	51097	49	480
	King William County	51101	49	500
	Louisa County	51109	49	540
	New Kent County	51127	49	621
	Powhatan County	51145	49	720
	Prince George County	51149	49	740
	Sussex County	51183	49	910
New York-Northern New Jersey-Long Island (35620)	*New Jersey*--state FIPS code: 34			
	Middlesex County	34023	31	270
	Monmouth County	34025	31	290
	Ocean County	34029	31	310
	Somerset County	34035	31	350
	Hunterdon County	34019	31	250
	Morris County	34027	31	300
	Sussex County	34037	31	360
	Union County	34039	31	370
	Bergen County	34003	31	100
	Hudson County	34017	31	230
	Passaic County	34031	31	320
	Essex County	34013	31	200

Metropolitan Statistical Area (CBSA Code)	County	County Census Code	SSA State Code	SSA County Code
New York-Northern New Jersey-Long Island (35620) (*continued*)	*New York*--state FIPS code: 36			
	Nassau County	36059	33	400
	Suffolk County	36103	33	700
	Bronx County	36005	33	020
	Kings County	36047	33	331
	New York County	36061	33	420
	Putnam County	36079	33	580
	Queens County	36081	33	590
	Richmond County	36085	33	610
	Rockland County	36087	33	620
	Westchester County	36119	33	800
	Pennsylvania--Pike County	42103	39	630
Columbus (18140)	*Ohio*			
	Delaware County	39041	36	210
	Fairfield County	39045	36	230
	Franklin County	39049	36	250
	Licking County	39089	36	460
	Madison County	39097	36	500
	Morrow County	39117	36	600
	Pickaway County	39129	36	660
	Union County	39159	36	810
Akron (10420)	Portage County	39133	36	680
	Summit County	39153	36	780
Cleveland (17460)	Cuyahoga County	39035	36	170
	Geauga County	39055	36	280
	Lake County	39085	36	440
	Lorain County	39093	36	480
	Medina County	39103	36	530

- **Fullyear2007**. This field indicates if an individual received housing assistance for the entire year or only a portion of the year. The variable was created differently for individuals in TRACS and PIC data. For TRACS, the following three variables were used to determine full year assistance: move in date, certification type, and effective date. If an individual's "move in date" is before the first of the year, and he/she did not have a "certification type" of Termination or Move Out with an "effective date" during the year or prior to the year, fullyear2007=1. If the individual's "move in date" is after the first of the year or if the individual had a "certification type" of Termination or Move Out with an "effective date" during the year, fullyear2007=0. For PIC, the three variables used were: admission date, type of action, and effective date. If the individual's "admission date" is before the first of the year and he/she did not have a "type of action" of Termination with an "effective date" during the year or prior to the year, fullyear=1. If the individual's "admission date" is after the first of the year or the individual had a "type of action" of Termination with an "effective date" during the year, fullyear2007=0. For both TRACS and PIC, some individuals had a move out or termination dated back to a previous year (2006 or earlier). In this instance, the individual was deleted from the 2007 dataset.

- **Fullyear2008**. Created similarly to fullyear2007. Some individuals have a move out or termination dated back to a previous year (2007 or earlier). For example, an individual may show up as present in the 2007 and 2008 data. In the 2008 data, it shows that they moved out in 2007. This individual's fullyear2007 variable was then set to 0 ("partial-year") and they were deleted from the 2008 dataset.

- **Fullyear2009**. Created similarly to fullyear2007. Some individuals have a move out or termination dated back to a previous year (2008 or earlier). For example, an individual may show up as present in the 2008 and 2009 data. In the 2009 data, it shows that they moved out in 2008. This individual's fullyear2008 variable was then set to 0 ("partial-year") and they were deleted from the 2009 dataset.

- **Fullyear0708**. Using fullyear2007 and fullyear2008 variables, this variable categorizes individuals as receiving housing assistance for all of 2007 and 2008 or for only a partial portion of those two years. The variable was defined as followings: fullyear0708=1 if fullyear07=1 and fullyear08=1. Fullyear0708=0 if either fullyear07 or fullyear08 were equal to zero. Similar variable was created for **fullyear0809**.

- **Fullyearallyears**. Using fullyear2007, fullyear2008, and fullyear2009 variables, this variable categorizes individuals as receiving housing assistance for all three years or for only a partial portion of the three years. The variable was defined as followings: fullyearallyears=1 if fullyear07=1, fullyear08=1, and fullyear09=1. Fullyearallyears=0 if either fullyear07 or fullyear08 or fullyear09 were equal to zero.

- **Reason for Partial-Year**. For individuals where fullyear=0 (partial-year), this variable specifies why they were not receiving housing assistance for the entire year. The values include: moved in after the first of the year, moved out during the year, terminated[21] during the year.

2. *Feasibility of linking HUD and CMS data sources*

The main objective of this study task was to determine the ability to link HUD-assisted housing recipients to Medicare and Medicaid administrative data (i.e., enrolled in Medicare or Medicaid health care programs) in the 12 study jurisdictions. We accomplished this objective by calculating two measures that represent the ability to link the HUD and CMS data sources:

1. **SSN Match Rate**. The proportion of HUD-assisted housing recipients enrolled in Medicare and/or Medicaid programs (determined *solely on a matched SSN* between the datasets).

2. **Restrictive Match Rate**. A fairly conservative method on which we established whether the individuals receiving housing assistance were definitively included in

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[21] Ended participation in HUD, death of sole family member.

the Medicare and/or Medicaid data by ***requiring a direct match on SSN, gender, and date of birth***.[22]

The restrictive match rate was calculated by year and across years for both Medicare and Medicaid programs using various combinations of the below indicators.

- **Linked to Medicare Eligibility File by Year (2007, 2008, 2009)**. For each individual in the TRACS/PIC datasets, we created a series of binary variables (Y/N) indicating whether the individual could be linked to the Medicare eligibility by year. If the individual was linked based on SSN, date of birth, and gender, this individual was assigned a Y for the given year. If the individual was not located on the Medicare eligibility file, this individual was assigned a N.

- **Linked to Medicaid eligibility file by year (2007 and 2008)**. For each individual in the TRACS/PIC datasets, we created two binary variables (Y/N) indicating whether the person could be linked to the Medicaid eligibility file by year. If the individual was linked based on SSN, date of birth, and gender, this individual was assigned a Y for the given year. If the individual was not located on the Medicaid eligibility file, this individual was assigned a N.

3. *Medicare Beneficiary Demographic and Coverage Characteristics*

The variables below were based on information in the Medicare Beneficiary Summary File. Each variable was created by year for all Medicare beneficiaries in the 12 geographic areas of interest. The level of observation was beneficiary year.

- **Age**. Age at end of year. Age groups were also created as followed: under age 65 (<62, 62-64); 65+ (65-74, 75-84, 85+).

- **Gender**. Values included unknown, female, and male.

- **Race**. Research Triangle Institute (RTI) Race Code which is based on enhanced race/ethnicity designation based on first and last name algorithms. Categories include: unknown, non-Hispanic White, Black, other, Asian/Pacific Islander, Hispanic, American Indian/Alaska Native.

- **Died**. Each beneficiary was assigned a Y/N flag based on the beneficiary date of death variable. If date of death=mmddyyyy, then Died=Y(1). If date of death is missing, then Died=N(0).

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[22] Before calculating the **match rates**, we excluded all Medicare or Medicaid beneficiaries that were duplicates in the CMS administrative data. We excluded these individuals from both the CMS administrative data and the HUD data, for those that were also HUD-assisted housing recipients. This way, the Rates were accurate and did not overestimate the rates due to an individual being counted multiple times. We also excluded any HUD-assisted housing recipient without a valid SSN from the denominator (invalid SSNs are those that begin with "999" or a letter.

- **Part A Coverage Indicator**. Part A coverage was assigned as a Y/N variable using the Beneficiary HI Coverage Months variable. If the beneficiary had a minimum of one month of Part A coverage, Part A Coverage indicator=Y(1), else=N(0). Medicare Part A includes inpatient services coverage, such as hospital care, SNF care, nursing home care (with exceptions), hospice, and home health services. The costs covered for these services depend on a number of factors.

- **Part B Coverage Indicator**. Part B coverage was assigned as a Y/N variable using the Beneficiary Severe Mental Illness Coverage Months variable. If the beneficiary had a minimum of one month of Part B coverage, Part B Coverage indicator=Y(1), else=N(0). Medicare Part B covers outpatient services, such as doctor's visits. The services covered by Part B are medically necessary services (i.e., those needed to diagnosis or treat a medical condition) or preventive services (e.g., a flu shot).[23]

- **Month Count with Part A Coverage**. The count of months when the beneficiary had Medicare Part A coverage. Values ranged from 0 to 12.

- **Month Count with Part B Coverage**. The count of months when the beneficiary had Medicare Part B coverage. Values ranged from 0 to 12.

- **Annual Part A and B Enrollment**. Beneficiaries were identified as being enrolled in both Part and B for the entire year if the month count with Part A coverage=12 and month count with Part B coverage=12.

- **Medicare Health Maintenance Organization (HMO)/Managed Care Indicator**. The Medicare HMO/Managed Care indicator was assigned as a Y/N variable using the HMO coverage total months variable. If the beneficiary had a minimum of one month of HMO coverage, HMO/Managed Care Coverage indicator=Y(1), else=N(0). Medicare HMOs, or Managed Care, are plans that incorporate Medicare Parts A and B; these are called Medicare Part C, or Medicare Advantage plans. In these plans, a private Medicare-approved company provides oversight of a beneficiary's health care utilization.

- **Month Count with HMO/Managed Care Coverage**. The count of months when the beneficiary had Medicare HMO/Managed Care coverage. Values ranged from 0 to 12.

- **Original Reason for Medicare Entitlement**. Reason why the beneficiary was initially entitled to Medicare coverage. Values include: 0=Old age and survivors insurance; 1=Disability insurance benefits (DIB); 2=End Stage Renal Disease (ESRD); and 3=Both DIB and ESRD.

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[23] See http://www.medicare.gov/what-medicare-covers/part-b/what-medicare-part-b-covers.html.

- **Current Reason for Medicare Entitlement**. Reason why the beneficiary was currently entitled to Medicare coverage during reference year. Values include: 0=Old age and survivors insurance; 1=DIB; 2=ESRD; and 3=Both DIB and ESRD.

- **Medicare Coverage Status**. Medicare coverage status was assigned based on the monthly buy-in indicators which specify if the beneficiary had Part A and/or Part B coverage by month. Medicare coverage status values were based on the following mapping:
    - If no buy-in monthly flags=(1,2,3,A,B,C) then beneficiary was assigned to 1=Not Entitled.
    - If all buy-in monthly flags=(1 or A) then beneficiary was assigned to 2=Part A coverage only category.
    - If all buy-in monthly flags=(2 or B) then beneficiary was assigned to 3=Part B coverage only category.
    - If all buy-in monthly flags=(3 or AB) then beneficiary was assigned to 4=Part A and B coverage only category.
    - If enrollee has any other combination of buy-in monthly flags they were assigned to the 5=Combination coverage category.

- **Part D Coverage Indicator**. Part D coverage was assigned as a Y/N variable using the Plan D coverage months variable. If the beneficiary had a minimum of one month of Part D coverage, Part D Coverage indicator=Y(1), else=N(0). Medicare Part D is prescription drug coverage. This is optional coverage that Medicare beneficiaries can purchase through private plans.[24] Having Part D coverage adds more drug coverage to Medicare Part A and B plans, in addition to some other Medicare plans.

- **Month Count with Part D Coverage**. The count of months when the beneficiary had Medicare Part D coverage. Values ranged from 0 to 12.

- **Part D Coverage by Cost Share Group Code**. The Part D benefit includes cost sharing provisions. State Medicaid and other government-sponsored subsidized premiums and/or copayments/coinsurance for low-income individuals are allowed. Additionally, unlike Medicare A and B, the Part D benefit allows for means-testing. The LIS provides assistance to certain low-income individuals to supplement the premium and cost sharing (including deductibles and cost sharing during the coverage gap) associated with the Part D benefit. Subsidies may also be provided to employers to cover eligible beneficiaries. All of these cost sharing provisions are indicated within this variable. Each beneficiary was assigned to one cost share group code based on the 12 monthly cost share indicators.[25] Months with a value of 10, 11, 12, 13, 00, or XX (not enrolled in Part D or missing) were not considered when counting the most often that occurs. If

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[24] See https://www.ccwdata.org/cs/groups/public/documents/document/ccw_partddata_userguide.pdf.

[25] See https://www.ccwdata.org/cs/groups/public/documents/document/ccw_partddata_userguide.pdf.

all months were equal to 09 ("No premium-subsidy nor cost sharing"), then PartD_costshrgrp=9. Else, partD_costshrgrp is set equal to the value that occurs most often across the 12 monthly indicators (01=Bene is deemed with 100% premium-subsidy and no copayment; 02=Bene is deemed with 100% premium-subsidy and low copayment; 03=Bene is deemed with 100% premium-subsidy and high copayment; 04=Bene with LIS, 100% premium-subsidy and high copayment; 05=Bene with LIS, 100% premium-subsidy and 15% copayment; 06=Bene with LIS, 75% premium-subsidy and 15% copayment; 07=Bene with LIS, 50% premium-subsidy and 15% copayment; 08=Bene with LIS, 25% premium-subsidy and 15% copayment).

- **MME Status**. MME Status was assigned to one of the following categories based on the variable "EL_MDCR_DUAL_ANN". Categories included: 00 (or NA), 99 (or unknown), 01 (qualified Medicare beneficiary (QMB) only), 02 (QMB Plus), 03 (specified low-income Medicare beneficiary (SLMB) only), 04 (SLMB plus), or 05 (Other MME status). These categories include the array of categories for MMEs, meaning that someone eligible for both Medicare and Medicaid may fall under some of these categories.[26]

- **Qualified Medicare Beneficiary (*QMB*)**. For an individual to be a QMB, they must be entitled to Medicare Part A, have an income at or below 100% of the Federal Poverty Level (FPL) and resources that do not exceed twice the SSI eligibility limit. These individuals also *cannot* be otherwise eligible for full Medicaid. This program pays for Part A and B premiums, as well as deductibles, coinsurance, and copayments.
    - For QMBs, Medicaid pays for their Medicare Part A and B premiums, if any, and Medicare deductibles and coinsurance for Medicare services provided by Medicare providers (as is consistent with the Medicaid State Plan).

- A *QMB Plus* is someone who meets all of the eligibility criteria of a QMB; however, they *are* eligible for full Medicaid benefits.
    - For QMB Plus individuals, Medicaid also pays for these benefits and provides full Medicaid benefits.

- *SLMB*. These individuals are entitled to Medicare Part A, have an income above 100% FPL, but below 120% FPL and resources that do not exceed twice the SSI eligibility limit. These individuals are not otherwise eligible for Medicaid.
    - For SLMB only individuals, Medicaid pays for their Medicare Part B premiums only.

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[26] See http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareEnrpts/Downloads/Buy-InDefinitions.pdf.

- The ***SLMB Plus*** population meets all of the SLMB requirements; however, they are eligible for full Medicaid benefits.
  - For SLMB plus individuals, Medicaid pays for their Medicare Part B premiums and provides full Medicaid benefits.

- ***Other MME Status***. This category captures those individuals who are eligible for Medicare and Medicaid, but are not QMB and SLMB. These can include qualified disabled and working individuals (QDWI) and Medicaid-only Dual Eligibles.

- **Any MME Status**. A binary Y/N variable based on DUAL_MO count. If DUAL_MO count not equal to zero, MME Status=Y; else N.

- Number of months with dual (Medicare and Medicaid) coverage. Equal to the number of months within the DUAL_MO variable.

4. *Medicaid Coverage Characteristics*

The variables below were based on information in the Medicaid person summary file. Each variable was created by year for all Medicaid beneficiaries in the 12 geographic areas of interest. The level of observation was beneficiary year.

- **Month Count of Medicaid Coverage**. The count of months when the beneficiary has Medicaid coverage (managed care or FFS). Values ranged from 0 to 12.

- **Annual Medicaid Enrollment**. Beneficiaries were identified as being enrolled in Medicaid for the entire year if the month count ("EL_ELGBLTY_MO_CNT")=12.

- **Medicaid HMO/Managed Care Indicator**. The Medicaid HMO/Managed Care indicator was assigned as a Y/N variable using the private insurance month count variable. If the beneficiary had a minimum of one month of private insurance, Medicaid HMO/Managed Care Coverage indicator=Y(1), else=N(0).

- **Month Count with Medicaid HMO/Managed Care Coverage**. The count of months when the beneficiary had Medicaid HMO/Managed Care coverage. Values ranged from 0 to 12.

- **Medicaid Basis for Eligibility**. Reason why the beneficiary was initially eligible for Medicaid coverage. Values include: 00=00 (not eligible); 99=99 (unknown); 11, 21, 31, 41, or 51=01 (aged); 12, 22, 32, 42, or 52=02 (blind/disabled); 14, 24, 34, 44, or 54=03 (child); 15, 25, 35, 45, or 55=04 (adult); 16=05 (child of unemployed adult); 17=06 (unemployed adult); 48=07 (foster care child); or 3A=08 (covered under breast and cervical cancer prevention act).

- **Medicaid Maintenance of Assistance**. The maintenance of assistance for the Medicaid beneficiary. Values include: 0=not eligible; 1=Cash or Section 1931 of the Act; 2=MN; 3=Poverty or State Children's Health Insurance Program (SCHIP); 4=Other; 5=foster care child; 6=Section 1115 Demo Expansion. Medicaid maintenance of assistance refers to how someone qualifies for Medicaid:[27],[28]
    - Value 0 means someone is not eligible for Medicaid.
    - Value 1 refers to Section 1931 of the Social Security Act, establishes rules for Medicaid coverage for qualified low-income families.[29]
    - Value 2 refers to those that are Medically Needy.
    - Value 3 means someone qualifies for Medicaid under poverty-related eligibility criteria.
    - Value 4 captures, but does not specify, other ways someone is eligible for Medicaid.
    - Value 5 means someone qualifies for Medicaid because they are a foster care or adoptive child.
    - Value 6 means someone is eligible under a Section 1115 demonstration.

- **Type of 1915c Waiver Status Code**. 1915c waivers are HCBS waivers. Individuals can qualify for a 1915c waiver based on the codes listed above. For example, someone can qualify for a state Medicaid 1915c waiver specifically for people who are aged and disabled. Most recent type of 1915c waiver, if applicable. Values include Blank=unknown, missing eligibility; G=aged and disabled; H=aged; I=disabled; J=brain injured; K=HIV/AIDS; L=MR/DD; M=mentally ill/severely emotionally disturbed; N=technology-dependent/medically fragile; O=Other or unknown; P=Autism/Autism spectrum disorder; 0=never enrolled in a 1915c waiver during the year.

- **Any 1915c Waiver Status Code**. Indicates if individual had any 1915c waiver status code during 2008. If MAX_1915C_WAIVER_TYPE_LTST is not equal to "blank" or 0, then indicator=1, else indicator=0.

5. *Chronic Conditions*

The Chronic Condition Warehouse (CCW) flags, as defined by CMS, were used to identify individuals with *Medicare* coverage who had any of the 27 chronic conditions. A binary variable (Y/N) was created for each of the 28 CCW conditions for each year of Medicare data available (2007, 2008, 2009, 2010) using the "end-of-year" flags. Individuals with an "end-of-year" value=1 ("claims met") or 3 ("claims and coverage met") for a condition were assigned a "Y" for the given CCW condition. A summary variable was created for each of the four years which summed up the flags across 26 of

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[27] See http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MedicareMedicaidStatSupp/Downloads/07Glossary.pdf.

[28] See https://www.ccwdata.org/summary-statistics/demographics/a2-assistance-1999-2007.htm.

[29] See http://aspe.hhs.gov/health/reports/transition/welfare.htm.

the 27 conditions (excluding Alzheimer's chronic condition to not double count with Alzheimer's and related conditions flag) for a given individual (e.g., an individual with three CCW condition "end-of-year" flags would be assigned a three for the given calendar year).

We grouped the 27 chronic conditions into nine categories, shown in Table A2.

TABLE A2. Assignment of Chronic Conditions into 9 Chronic Condition Groups	
Chronic Condition Group	**Chronic Condition**
Cardiovascular Chronic Conditions	• Acute Myocardial Infarction • Atrial Fibrillation • Chronic Heart Failure • Ischemic Heart Disease • Stroke
Cancer	• Breast Cancer • Colorectal Cancer • Lung Cancer • Endometrial Cancer • Prostate Cancer
Endocrine & Renal	• Chronic Kidney Disease • Diabetes • Hypothyroidism
Alzheimer's Disease	• Alzheimer's Disease • Alzheimer's and Alzheimer's-Related Disorders or Senile Dementia
Depression	• Depression
Musculoskeletal	• Hip Fracture • Osteoporosis • Rheumatoid Arthritis
Pulmonary	• Chronic Obstructive Pulmonary Disease • Asthma
Ophthalmic	• Cataract • Glaucoma
Other	• Anemia • Hyperlipidemia • Hypertension • Benign Prostatic Hyperplasia

6. Health Care Utilization

Health care utilization metrics were generally defined as available in the Medicare Beneficiary Summary File. In a few instances, we combined existing metrics to create a summation of related services. Table A3 includes the utilization metrics created in our dataset and the corresponding Medicare variable or Medicare data-based logic. Variables were created for each year available in the Medicare (2007, 2008, 2009 and 2010) data.

TABLE A3. Medicare Health Care Utilization Variable Definitions		
Utilization Metric	**Variable as Named in Medicare Data or Algorithm Using Medicare Data Variables**	**Variable Definitions[1]**
Total Admissions	ACUTE_STAYS + OIP_STAYS	
Acute stay admissions	ACUTE_STAYS	Count of hospital stays (unique admissions, which may span more than one facility) in the acute inpatient setting for a given year. An acute stay is defined as a set of one or more consecutive acute claims where the beneficiary is only discharged on the most recent claim in the set. Acute care settings include a hospital, ER, and short-stay facilities for shorter-term treatment.
Other inpatient admissions	OIP_STAYS	Count of hospital stays (unique admissions, which may span more than 1 facility) in the non-acute inpatient setting for a given year. A non-acute inpatient stay is defined as a set of 1 or more consecutive non-acute inpatient claims where the beneficiary is only discharged on the most recent claim in the set. Non-acute inpatient settings are SNFs.
Hospital Readmissions	READMISSIONS	Count of hospital readmissions in the acute inpatient setting for a given year.
Medicare SNF days	SNF_STAYS	Count of SNF setting stays (unique admissions, which may span more than 1 facility) for a given year. A SNF stay is defined as a set of 1 or more consecutive SNF claims where the beneficiary is only discharged on the most recent claim in the set.
Medicare HH visits	HH_VISITS	Count of HH visits for a given year.
Medicare hospice days	HOS_COV_DAYS	Count of covered days in the hospice setting for a given year.
Hospital Outpatient visits	HOP_VISITS	Count of unique revenue center dates (as a proxy for visits) in the hospital outpatient setting for a given year.
Total ER visits (total)	HOP_ER_VISITS + IP_ER_VISITS	
ER visits without an admission	HOP_ER_VISITS	Count of unique ED revenue center dates (as a proxy for an ED visit) in the hospital outpatient data file for a given year.
ER visits resulting in an admission	IP_ER_VISITS	Count of ED claims in the inpatient setting for a given year.
Physician office visits	EM_EVENTS + PHYS_EVENTS	The EM_EVENTS variable is the count of events for the Part B E&M services for a given year. E&M claims are a subset of the claims in the Part B Carrier and DME data files, and a subset of physician claims. The PHYS_EVENTS variable is the count of events in the Part B PHYS for a given year. Physician office claims are a subset of the claims in the Part B Carrier and DME data files, and a subset of physician E&M claims.
ASC visits	ASC_EVENTS	Count of events in the Part B ASC setting for a given year.
Dialysis events	DIALYS_EVENTS	Count of events for Part B dialysis services (primarily the professional component since treatments are covered in hospital outpatient) for a given year.
Anesthesia events	ANES_EVENTS	Count of events for Part B ANES for a given year.
Imaging events	IMG_EVENTS	Count of events for IMG for a given year.
Test events	TEST_EVENTS	Count of events in for Part B tests for a given year.
Other procedures	OPROC_EVENTS	Count of events for Part B other procedures for a given year.
DME	DME_EVENTS	Count of events in the Part B DME for a given year.
Part B	PTB_DRUG_EVENTS	Count of events in the Part B drug setting for a given year.
Part D[2]	PTD_EVENTS where PLNCOVMO not equal to 0	Count of events for Part D drugs for a given year (i.e., a unique count of the PDE_IDs). An event is a dispensed (filled) drug prescription covered by the Part D benefit. PLNCOVMO is Part D Plan Coverage Months.
NOTES: 1. See https://www.ccwdata.org/web/guest/data-dictionaries. 2. Limited to beneficiaries with Part D coverage.		

For MMEs, the following three variables were defined using the Medicaid Person Summary data for 2007 and 2008.

- **Medicaid HCBS**. These services help Medicaid beneficiaries stay in their communities and are implemented by states. As stated above, they can cover a range of services including DME and transportation. Sum of claims (FFS_CLM_CNT) when type of service represents one of the following: personal care services, residential care, DME, private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice. (TOS=13, 30, 31, 33, 35, 26, 38, 51, 52, 54).

- **Medicaid Nursing Facility Days**. Given this is a Medicaid-covered service, it is only included in the Medicaid person summary file and not the Medicare claims data. This value is equal to the variable named "TOT_LTC_CVR_DAY_CNT_NF", which represents total covered nursing facility days, including long-term stays.

- **Other Long-Term Days (excluding Nursing Facility)**. This is the count of covered days for any of the following types of service: mental hospital, inpatient psych (age <21), and intermediate care facility for persons with mental retardation covered days.

7. Health Care Spending

Medicare plan paid variables were created for various types of services (e.g., total admissions PMPM). Payments are not standardized due to geographic differences in payment rates. Therefore, care must be used when comparing average spending for a particular service across the geographies.[30]

Table A4 includes the health care spending metrics created in our dataset and the corresponding Medicare variable or Medicare data-based logic. Variables were created for each year available in the Medicare (2007, 2008, 2009 and 2010) data. Definitions for the services included in each variable are included in Table A3.

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[30] For additional information see Dartmouth Atlas: http://www.dartmouthatlas.org/.

TABLE A4. Medicare Health Care Spending Variable Definitions	
Health Care Spending Metric	**Medicare Plan Paid Definition**
Total medical and pharmacy payments	TOT_MED_MDCR + PTD_MDCR_PMT
Total medical payments	Sum of all individual values below excluding long-term care and Part D drugs (not double counting categories that have subcategories (e.g., total admissions))
Total admissions	ACUTE_MDCR_PMT + OIP_MDCR_PMT
Acute stay admissions	ACUTE_MDCR_PMT
Other inpatient admissions	OIP_MDCR_PMT
Medicare SNF days	SNF_MDCR_PMT
Medicare HH visits	HH_MDCR_PMT
Medicare hospice days	HOS_MDCR_PMT
Hospital outpatient visits	HOP_MDCR_PMT
Physician office visits	EM_MDCR_PMT + PHYS_MDCR_PMT
ASC visits	ASC_MDCR_PMT
Dialysis events	DIALYS_MDCR_PMT
Anesthesia events	ANES_MDCR_PMT
Imaging events	IMG_MDCR_PMT
Test events	TEST_MDCR_PMT
Other procedures	OPROC_MDCR_PMT
DME	DME_MDCR_PMT
Part B	PTB_DRUG_MDCR_PMT
Part D[1]	PTD_MDCR_PMT
NOTE: 1. Limited to beneficiaries with Part D coverage.	

APPENDIX B. STUDY SAMPLES AND ANALYTIC APPROACH

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A. Study Samples

1. Objective A, B, and C study samples

Our sample of HUD-assisted individuals consisted of all individuals that appear in the TRACS or PIC data at any point in time during 2008. This sample was the basis for Objective A (Understanding demographic characteristics of HUD-assisted individuals). The "TRACS/PIC base" sample was created by combining the TRACS and PIC data into one dataset. For individuals that appear in both datasets (across all three years this was 38,326 individuals, or 1.54%), we created only one observation per individual based on the PIC data. Individuals were excluded if an individual's move out date in a given year occurred prior to the current data year[31] (N=194,674). **The resulting total**

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[31] For example, if current year of analysis is 2008 and their move out date was 2007, we removed them from 2008 dataset.

sample size was 2,057,893 unique individuals and 967,557 unique heads of households.

The sample of HUD-assisted individuals for Objective B (Calculate match rate between HUD and Medicare and/or Medicaid data) and Objective C (Estimate HUD-assisted Medicare beneficiaries with enrollment in Part D subsidy assistance programs or Medical Savings Program) was a subset of this sample. The Medicare and Medicaid data can have duplicate observations for a given SSN due to a variety of reasons (e.g., Medicaid beneficiary who moved to a different state mid-year, data error, etc.). We excluded any individual who had more than one observation in the Medicare or Medicaid data from Objective B in order to calculate an accurate Participation and Match Rate without duplicate beneficiaries. HUD-assisted individuals who appeared multiple times in the Medicare or Medicaid data files were therefore excluded.

Table B1 presents the HUD-assisted individuals 2008 sample size for Objective A and the reduced sample for Objectives B and C.

TABLE B1. HUD-Assisted Individuals 2008 Unique Observations	
Objective Sample	**Individuals**
Objective A sample: HUD-assisted individuals 2008 unique observations	2,057,893
Objectives B & C sample: HUD-assisted individuals 2008 unique observations, removing Medicare/Medicaid duplicates	2,025,126

2. Objective D Study Samples

As discussed in the Summary Report and Appendix C, the sample was refined in order to compare HUD-assisted Medicare beneficiaries to unassisted beneficiaries in the community with regards to enrollment, chronic conditions, health care payment and utilization. Although our overall study focused on individuals age 62 and older receiving housing assistance, we narrowed this analysis to individuals age 65 and older to result in the most representative comparison because the vast majority of individuals age 65 and older have Medicare coverage.

Before comparing groups of beneficiaries, we first refined our study sample of Medicare beneficiaries (both HUD-assisted and unassisted beneficiaries in the 12 study jurisdictions). Figure B1 depicts the inclusion criteria. Medicare beneficiaries had to be enrolled in Part A Hospital and Part B Physician Services for all 12 months of 2008 or up until death and not have any Medicare managed care (i.e., Medicare Part C or Medicare Advantage)[32] enrollment in 2008. This reduced the sample of Medicare beneficiaries 38%, down to 3.6 million. Approximately 7% of the Medicare beneficiaries were HUD-assisted individuals and 93% were unassisted in the community.

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[32] We excluded individuals with any managed care enrollment as the CMS administrative data only has enrollment for individuals in managed care but does not have their claims data (i.e., health care cost and utilization data).
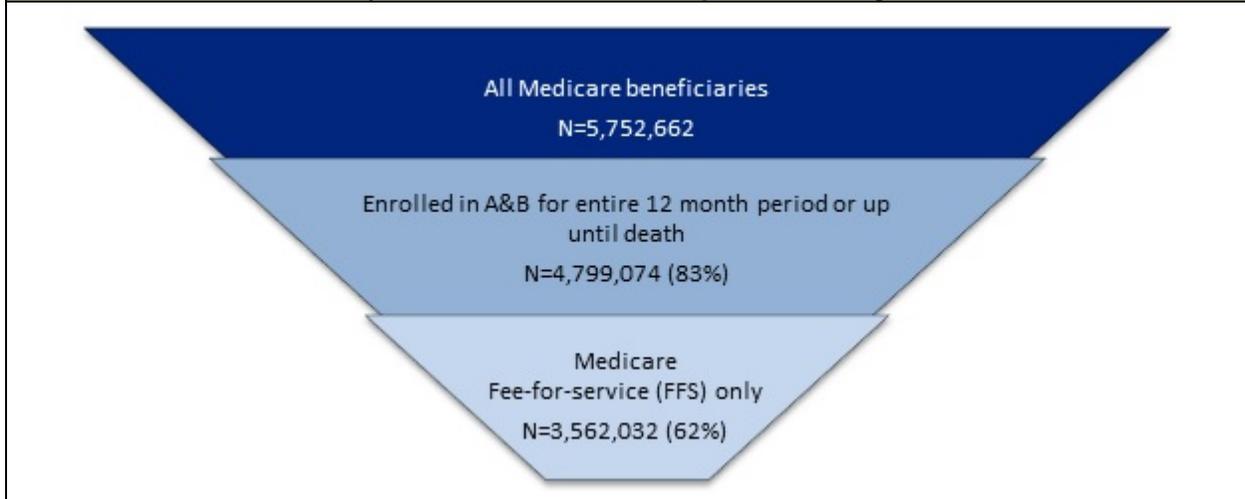
B. Analytic Approach

This section outlines our analytic approach by research question.

1. Understand Demographic Characteristics of HUD-Assisted Individuals in the 12 Study Jurisdictions

We calculated the number and percentage of HUD-assisted individuals by characteristic (e.g., race, living arrangement). Objective A results were stratified by year (2007, 2008, 2009), age group (<62, 62-64, 65+ years of age), the 12 geographic areas, subsidy type, and property type. For certain characteristics, such as living arrangement, we calculated the metric on both an individual and household level. In addition to individual characteristics, we also looked at the number and proportion of properties defined as an elderly property (see *Appendix A* for variable definitions).

2. Calculate HUD and Medicare and/or Medicaid Match Rate in 12 Study Jurisdictions

The main objective of this study task was to determine the ability to link HUD-assisted individuals to Medicare and Medicaid administrative data (i.e., enrolled in Medicare or Medicaid health care programs) in the 12 study jurisdictions. We focus the results on 2008 -- the most recent year for which we had data on HUD, CMS Medicare, and CMS Medicaid enrollment. We accomplished this objective by calculating two measures that represent the ability to link the HUD and CMS data sources:

1. **SSN Match Rate**. The proportion of HUD-assisted individuals enrolled in Medicare and/or Medicaid programs (determined solely on a matched SSN between the datasets).

2. ***Restrictive Match Rate***. A fairly conservative method on which we established whether the individuals receiving housing assistance were definitively included in the Medicare and/or Medicaid data by requiring a direct match on SSN, gender, and date of birth.

The **SSN Match Rate** gives a fairly good estimate on the proportion of HUD-assisted individuals that had any Medicare and/or Medicaid enrollment during the observation period. The more conservative **Restrictive Match Rate** creates a sample for which we can be very confident the HUD-assisted individual was in fact enrolled in Medicare and/or Medicaid. This method is important for identifying a sample of beneficiaries with HUD housing assistance for which we would then compare to other Medicare and/or Medicaid beneficiaries' payment and utilization.

The following outlines the steps we completed to calculate the Match Rates:

1. Lewin sent Buccaneer/General Dynamics Information Technology (GDIT) HUD data that included the individuals with a valid SSN receiving housing assistance at any point in time during 2007, 2008, and 2009.

2. Buccaneer/GDIT linked these files to Medicare and Medicaid data (not limited to any particular years) based on SSN. Buccaneer/GDIT sent Lewin a "crosswalk" file that contained the list of all valid SSNs that linked to Medicare or Medicaid data and the corresponding Medicare/Medicaid beneficiary identification number (Bene_ID).
   – This crosswalk contained HUD individuals with valid SSNs who had a Medicare or Medicaid Bene_ID at any point in time.

3. Of the individuals in the crosswalk file, Lewin limited it those who had a Bene_ID present in our years of study: 2007, 2008, 2009, or 2010.

4. Calculate Participation rate: same SSN only.

5. Calculate Match rate: Same SSN, date of birth, and gender.

To compare the HUD-assisted individuals who linked to those that did not link to the Medicare or Medicaid data (based on the Match Rate definition), we calculated the number and percentages of individuals with certain characteristics. We calculated the chi-square statistic for categorical variables (e.g., gender) and the t-test for continuous variables (e.g., age) to test if the two samples were statistically different. We also created summary statistics to examine the Medicare enrollment characteristics among those that linked, including the participation rates in Medicare Part D LIS and Medicaid programs.

3. *Estimate the Proportion of HUD-Assisted Medicare Beneficiaries with Enrollment in Part D Subsidy Assistance Programs or Medical Savings Program (i.e., Medicaid)*

We calculated the number and percentage of HUD-assisted Medicare beneficiaries by Part D subsidy assistance program types and the Medicaid coverage status categories.

4. *Compare Medicare and Medicaid Payment and Utilization for HUD-Assisted Beneficiaries and Unassisted Beneficiaries in the Community in the 12 Study Jurisdictions*

Similar to the above, to compare demographic and coverage characteristics, we calculated the number and percentages of individuals with certain characteristics along with the chi-square statistic to compare the distribution of categorical variables (e.g., reason for entitlement) and means and standard deviations along with the t-test to compare continuous variables (e.g., months of Medicare coverage) across three strata: (1) HUD-assisted beneficiaries partial-year; (2) HUD-assisted beneficiaries full year; and (3) unassisted beneficiaries in the community. The results of this comparison then informed whether or not to combine HUD partial-year and HUD full year into one group for the comparison of chronic conditions, payment and utilization.

To compare prevalence of chronic conditions, we calculated the number and percentage of individuals with nine different categories of conditions (See Appendix A for variable definitions) and the chi-square statistic to test if the groups were statistically different. To examine health care utilization and payments, we used descriptive techniques that account for length of enrollment time: utilization metrics were calculated per 1000 member months, and we used PMPM for health care payments. Means, medians, and standard deviations were calculated for these variables and t-tests were calculated for significance testing.

Note that with large sample sizes (such as those of our study samples) tests of association tend to be statistically significant.

APPENDIX C. 2008 DETAILED RESULTS

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Introduction

The results presented below are organized by study objective and based on 2008--
the most recent year for which we had data on HUD, CMS Medicare, and CMS
Medicaid enrollment. We also produced results for Objectives A, B, and C by year
(2007, 2008, and 2009), which are included in *Appendix D*.

A. Understand Demographic Characteristics of HUD-Assisted Individuals in the 12 Study Jurisdictions

The HUD individual tenant-level data for 2008 included **2,057,893** unique
individuals and **967,557** unique household heads that received housing assistance at

some point during 2008. The tables below summarize characteristics of these individuals based on the data available in the HUD data sources.

1. Demographic Characteristics of HUD-Assisted Individuals

Table C1 presents the demographic characteristics for HUD-assisted individuals in the 12 study jurisdictions.

TABLE C1. Demographic Characteristics of HUD-Assisted Individuals, 2008, 12 Study Jurisdictions		
	Unique Individuals (N=2,057,893)	
	Mean	**SD**
Age		
All Persons	34.9	25.3
Household Heads	54.2	18.8
	N	**%**
Gender		
Male	765,169	37.2%
Female	1,291,140	62.7%
Unknown/declined to report	1,584	0.1%
Age Group		
<18	764,543	37.2%
18-44	566,059	27.5%
45-61	327,067	15.9%
62-64	46,700	2.3%
65+	352,091	17.1%
Unknown/declined to report	1,433	0.1%
Race/Ethnicity		
White non-Hispanic	331,944	16.1%
Hispanic	489,337	23.8%
Black non-Hispanic	773,550	37.6%
Asian	56,934	2.8%
American Indian/Alaskan	3,699	0.2%
Hawaiian/Pacific Islander	2,762	0.1%
Other non-Hispanic	259	0.0%
Mixed non-Hispanic	275	0.0%
Unknown/declined to report	399,133	19.4%
Property Type[1]		
Public housing	635,906	30.9%
Housing Choice Vouchers[2]	960,387	46.7%
Other multifamily	381,078	18.5%
Section 202	63,033	3.1%
Section 811 & 202/162	3,993	0.2%
Other	13,496	0.7%

TABLE C1 (*continued*)		
	Unique Individuals (N=2,057,893)	
	N	**%**
Subsidy Type		
Public housing	638,584	31.0%
Housing Choice Vouchers	969,140	47.1%
Project-Based Section 8	376,552	18.3%
Section 202	21,386	1.0%
Section 202/162	100	0.0%
Section 811	3,839	0.2%
Other	48,292	2.3%
Disability or Handicapped Status		
Yes	376,339	18.3%
No	1,472,679	71.6%
Unknown/declined to report	208,875	10.1%
Geographic Area		
Vermont	22,635	1.1%
New Haven-Milford	50,201	2.4%
Bridgeport-Stamford-Norwalk	35,326	1.7%
Milwaukee-Waukesha-West Allis	51,555	2.5%
San Francisco-Oakland-Fremont	167,795	8.2%
Boston-Cambridge-Quincy	243,601	11.8%
Durham-Chapel Hill	17,945	0.9%
Richmond	43,196	2.1%
New York-Northern New Jersey-Long Island	1,213,201	59.0%
Columbus	72,332	3.5%
Akron	35,409	1.7%
Cleveland	104,697	5.1%

NOTES:
1. The purpose of the *property type variable* was to assign individuals to the actual type of property in which they live whereas the *subsidy type variable* assigned individuals to a category based on their subsidy type regardless of the type of property in which they live. While there is much overlap between the two variables, the main difference is for individuals receiving a project-based Section 8 subsidy. The property type variable distributes individuals receiving a project-based Section 8 subsidy to the actual property in which they live -- Other multifamily, Section 202, Section 811 and 202/162, or Other. The majority of individuals with project-based Section 8 subsidies were mapped to "Other multifamily". However, a larger portion of individuals age 65+ with a project-based Section 8 subsidy were mapped to "Section 202" property.
2. Assisted households are categorized by property type in which they live, despite minor variations in subsidy type. "Housing choice vouchers" include all types of buildings in which housing choice voucher holders live, from a single-family home to a large apartment complex.

Over half of the sample (59%) was located in the New York-Northern New Jersey-Long Island area. The remaining ten geographies each represent 5% or less of the sample. Given the New York City area is the majority of our sample, the individuals living in this area heavily influence the other characteristics presented in the result tables.

The majority of individuals were female (63%) with an average age of 34.9 years. Approximately 19% of the sample was older than 62 years of age ("elderly") with 37% younger than age 18. As expected, among household heads, the average age was

much higher (54.2 years). While 19% of the sample declined to report race/ethnicity, among the individuals where the information was available, 38% were non-Hispanic Black, 24% were Hispanic, 16% were White non-Hispanic, 3% were Asian, and less than 1% were American Indian/Alaskan, Hawaiian/Pacific Islander, Other non-Hispanic or Mixed non-Hispanic. Only 18% of individuals were designated as living in a household identified as a disability status or handicapped household (11% declined to report so 20% among those reporting).

The largest proportion of subsidy type received was Housing Choice Vouchers (47%). Approximately 31% resided in public housing and another 18% lived in multifamily project-based Section 8 housing. Among individuals age 62 years or older, public housing, other multifamily, and Housing Choice Vouchers were the most common (31%, 29%, and 25%) with an additional 14% residing in Section 202 properties (data not shown, see *Appendix D*).

TABLE C2. Living Arrangement, All Ages and Age 62+ Years				
	All Ages (N=2,057,893)		Age 62+ Years (N=398,791)	
	N	%	N	%
Living arrangement				
Lives Alone	450,410	21.9%	267,751	67.1%
Lives with Spouse	89,066	4.3%	68,694	17.2%
Other Adults	144,705	7.0%	30,603	7.7%
Minor(s) in Household	1,345,190	65.4%	24,130	6.1%
Live-in Aide	7,039	0.3%	1,877	0.5%
Other	283	0.0%	38	0.0%
Unknown/declined to report	21,200	1.0%	5,698	1.4%
Living with minor(s) in household				
Age 62+ with minor(s) in household			24,130	6.1%

Table C2 presents living arrangement on an individual level by age (all ages and 62+ years only) and Table C3 presents living arrangement on a household level. Approximately 65% of individuals of all ages were in households with children and 22% lived alone. In contrast, among individuals age 62 years or older, over 67% live alone and 6% had minors in the home. On a household level, 41% of households had children while 47% of households consisted of a single individual. Among households with more than one person, there was an average of 3.1 people (data not shown).

TABLE C3. Living Arrangement, Household Level, All Ages		
	Households (N=967,557)	
	N	%
Living arrangement		
Lives Alone	448,556	46.4%
Lives with Spouse	45,985	4.8%
Other Adults	68,751	7.1%
Minor(s) in Household	394,260	40.7%
Live-in Aide	3,131	0.3%
Other	78	0.0%
Unknown/declined to report	6,796	0.7%

Table C4 presents the number and proportion of HUD-assisted individuals who received housing assistance for the entire year of 2008 or for only a portion of the year by age (all ages, 62+ years; 65+ years). For those individuals that only received housing assistance for a portion of the year, the reason is also included. Approximately 87% of all individuals received housing assistance for all of 2008. Among the 13% who only received housing assistance for a portion of the year, the large majority (60%) had moved into the property after January 1st of the calendar year. Approximately 40% of partial-year participants terminated the program or moved out of the property. Among individuals age 65 years or older, 79% received housing assistance for the full year. Similarly, the reason for partial-year assistance was also different among this older sample -- 54% had terminated the program or moved out of the property compared with 40% of partial-year recipients across all ages. This difference was expected because older individuals would be more likely to move to another facility (such as a nursing home) or die.

TABLE C4. Full and Partial HUD Housing Assistance, 2008, by Age Group						
	All Ages (N=2,057,893)		Age 62+ (N=398,791)		Age 65+ (N=352,091)	
	N	%	N	%	N	%
Full year participants	1,783,202	86.7%	353,789	88.7%	313,035	88.9%
Partial-year participants	274,691	13.3%	45,002	11.3%	39,056	11.1%
Reason for partial-year						
Moved Out/Terminated	110,370	40.2%	22,815	50.7%	20,876	53.5%
Moved in after Jan 1	164,321	59.8%	22,187	49.3%	18,180	46.5%

2. HUD Elderly Properties

Table C5 presents the proportion of properties that were defined as elderly[33] among all public housing properties (from PIC) and private assisted multifamily properties (from TRACS) within the 12 study jurisdictions. Half of all multifamily properties had an individual age 62 years or older in over 50% of their units. Approximately 42% of all public housing properties were either designated as elderly by PHAs or had an individual age 62 years or older in over 50% of their units. Both of these proportions varied greatly by the 12 study jurisdictions, from 30% of multifamily properties in Durham-Chapel Hill, North Carolina to 68% of multifamily properties in Bridgeport-Stamford-Norwalk, Connecticut and only 19% of public housing properties in Cleveland compared to 90% of public housing properties in Vermont (data not shown, see *Appendix D*).

TABLE C5. Proportion of HUD-Assisted Properties in 12 Study Jurisdictions Defined as "Elderly"		
Property Types	Number of Properties	Percent of Properties
Multifamily elderly properties (reported in TRACS)	1,811	50.0%
Public Housing elderly properties (reported in PIC)	335	42.0%

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[33] For this report, "elderly properties" include properties designated as elderly by PHAs and properties in which 50% or more of households had an individual aged 62 years or older.

B. Calculate HUD and Medicare and/or Medicaid Match Rate in the 12 Study Jurisdictions, 2008

1. Match Rate: HUD-Assisted Individuals to Medicare or Medicaid Enrollment Data

The main objective of this study task was to assess the feasibility and potential for successful (i.e., accurate and complete) matching to Medicare and Medicaid administrative data (i.e., enrolled in Medicare or Medicaid health care programs) in the 12 study jurisdictions to support research and policy analysis. We accomplished this objective by calculating two measures that represent the ability to link the HUD and CMS data sources:

1. **"SSN Match Rate"**. The proportion of HUD-assisted individuals enrolled in Medicare and/or Medicaid programs (determined *solely on a matched SSN* between the datasets).

2. **"Restrictive Match Rate"**. A fairly conservative method on which we established whether the individuals receiving housing assistance were truly included in the Medicare and/or Medicaid data by *requiring a direct match on SSN, gender, and date of birth*.[34]

Table C6 presents the Medicare and Medicaid SSN match rate and restrictive match rate for the 2008 sample of HUD-assisted individuals, excluding duplicates. SSN match rate and restrictive match rate are presented separately for individuals less than age 65 years and those age 65 years or older to align with Medicare eligibility at age 65. Before calculating SSN and restrictive match rates, we excluded individuals from the HUD sample that do not have valid SSNs. This results in a less than 1% reduction in sample size for both age groups.

Among HUD-assisted individuals age 65 years or older with a valid SSN, the Medicare SSN Match Rate was 93%. This decreased by 8 percentage points to 85% when requiring a match on gender and date of birth in addition to SSN. Among HUD-assisted individuals less than age 65 with a valid SSN, the Medicaid SSN match rate was 73%. This decreased to 69% when requiring a match on gender and date of birth in addition to SSN. Approximately 63% of HUD-assisted individuals age 65 years or older with a valid SSN linked to Medicare and Medicaid in 2008 based on SSN alone. The restrictive match rate for Medicare and Medicaid among this sample was 58%.

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[34] Before calculating the **match rates**, we excluded all Medicare or Medicaid beneficiaries that were duplicates in the CMS administrative data. We excluded these individuals from both the CMS administrative data and the HUD data, for those that were also individuals receiving HUD-assisted housing. This way, the rates were accurate and did not overestimate the rates due to an individual being counted multiple times. We also excluded any individuals receiving HUD-assisted housing without a valid SSN from the denominator (invalid SSNs are those that begin with "999" or a letter).

TABLE C6. Medicare and Medicaid SSN and Restrictive Match Rates for HUD-Assisted Individuals,[1] 2008, by Age Group				
	Age <65 Years (N=1,663,348)		Age 65+ Years (N=349,208)	
	N	%	N	%
Medicare				
SSN Match Rate (SSN only)	116,803	7.0%	325,589	93.2%
Restrictive Match Rate (SSN, gender, date of birth)	110,395	6.7%	297,227	85.1%
Medicaid				
SSN Match Rate (SSN only)	1,200,981	72.2%	229,093	65.6%
Restrictive Match Rate (SSN, gender, date of birth)	1,131,137	68.5%	209,679	60.0%
Medicare and Medicaid				
SSN Match Rate (SSN only)	96,509	5.8%	220,139	63.0%
Restrictive Match Rate (SSN, gender, date of birth)	91,564	5.5%	201,753	57.8%
NOTE: 1. Excluded individuals with valid SSNs (drop invalid SSNs such as "999" of "T.."). Only reduced sample by approximately 1%.				

We also calculated the restrictive match rate for individuals age 65 and older by property type and geography and found little variation (data not shown, see Appendix D). The percentages that linked to Medicare or Medicaid are consistently high across property types, ranging from 84.2% (public housing) to 89.4% (Section 202). These percentages are also high across geographic area (86.2% in New York-Northern New Jersey-Long Island to 94.2% in Vermont) with the exception of Richmond, where only 31.2% linked.

TABLE C7. Medicare and Medicaid SSN and Restrictive Match Rates for HUD-Assisted Household Heads Receiving SSI,[1] 2008, by Age Group				
	Age <65 Years (N=158,323)		Age 65+ Years (N=131,335)	
	N	%	N	%
Medicare				
SSN Match Rate (SSN only)	49,367	31.2%	123,759	94.2%
Restrictive Match Rate (SSN, gender, date of birth)	46,875	29.6%	112,783	85.9%
Medicaid				
SSN Match Rate (SSN only)	143,443	90.6%	124,730	95.0%
Restrictive Match Rate (SSN, gender, date of birth)	134,320	84.8%	113,711	86.6%
Medicare and Medicaid				
SSN Match Rate (SSN only)	46,717	29.5%	120,811	92.0%
Restrictive Match Rate (SSN, gender, date of birth)	44,389	28.0%	110,254	83.9%
NOTE: 1. Excluded individuals with valid SSNs (drop invalid SSNs such as "999" of "T.."). Only reduced sample by approximately 1%.				

Table C7 presents the Medicare and Medicaid SSN match rate and restrictive match rate among the 2008 sample of HUD-assisted household heads who were receiving SSI in 2008. The purpose of calculating the SSN match rate and restrictive match rate for this subsample is that individuals eligible for SSI are automatically eligible for Medicaid. Therefore, we would expect to see close to 100% SSN match rate,

understanding a perfect Match Rate is not expected given limitations in the dataset. Among head of households receiving SSI under age 65 with a valid SSN in the HUD data, 91% were linked to Medicaid enrollment files on SSN alone. Among head of households receiving SSI age 65 and older, the Medicare SSN Match Rate was 94% and the SSN match rate for Medicaid and Medicare was 92%. While the proportions are not 100%, over 90% of individuals receiving SSI were enrolled in SSI in 2008. Additional analysis would need to be conducted in order to better estimate program enrollment among individuals that are eligible.

From this point forward, all HUD-assisted individuals identified as Medicare beneficiaries are based on the restrictive match rate -- individuals that linked based on gender, date of birth, and SSN. The more conservative Restrictive Match Rate creates a sample for which we can be very confident the HUD-assisted housing recipient was in fact enrolled in Medicare and/or Medicaid.

2. HUD-Assisted Individuals Matched to Medicare Administrative Data Compared to HUD-Assisted Individuals Who Did Not Match

Next we wanted to better understand the characteristics of HUD-assisted individuals that matched to the CMS administrative data relative to the individuals that did not match.

Table C8 presents a comparison of HUD-assisted individuals who were linked to Medicaid or Medicare enrollment files to those that were not linked (using the restrictive match based on gender, date of birth, and SSN). Among individuals less than 65 years of age, we compared those who linked to Medicaid compared to those who did not. Individuals who linked to Medicaid files were more likely to be White (17% vs. 11%); much more likely to have received Housing Choice Vouchers (56% vs. 42%); disabled (19% vs. 10%); and received SSI (18% vs. 6%).

Similar results were found when comparing individuals age 65 years or older who linked to either Medicare or Medicaid enrollment files. Individuals who linked to Medicare or Medicaid were more likely to be White (22% vs. 15% of individuals who did not link); more likely to receive Housing Choice Vouchers (24.5% vs. 20.2%) or live in Section 202 (elderly supportive housing) property (15.9% vs. 12.9%); and more likely to receive SSI (44% vs. 38%).

TABLE C8. Comparison of HUD-Assisted Individuals Who Linked to Medicare or Medicaid, 2008, by Age Group								
	HUD-Assisted Individuals (<65 Years)				HUD-Assisted Individuals (65+ Years)			
	Linked to 2008 Medicaid Enrollment Files (N=1,131,137)		Did No Link to 2008 Medicaid Enrollment Files (N=542,905)		Linked to 2008 Medicaid Enrollment Files (N=305,153)		Did No Link to 2008 Medicaid Enrollment Files (N=44,505)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age--All Persons	24.6	17.9	30.4	18.4	76.3	7.7	76.9	8.3
Age--Household Heads	42.6	11.8	45.5	11.5	76.5	7.8	77.2	8.3
	N	%	N	%	N	%	N	%
Gender								
Male	429,972	38.0%	216,918	40.0%	91,241	29.9%	12,416	30.15%
Female	701,165	62.0%	325,903	60.0%	213,912	70.1%	30,965	69.6%
Unknown/declined to report	0	0.0%	84	0.0%	0	0.0%	124	0.3%
Age Group								
<18	531,042	46.9%	168,356	31.0%				
18-44	383,522	33.9%	220,231	40.6%				
45-61	194,296	17.2%	130,220	24.0%				
62-64	22,277	2.0%	24,098	4.5%				
65+					305,153	100.0%	44,505	100.0%
Unknown/declined to report	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Race/Ethnicity								
White non-Hispanic	196,344	17.4%	59,773	11.0%	65,942	21.6%	6,462	14.5%
Hispanic	293,367	25.9%	131,007	24.1%	46,760	15.3%	8,528	19.2%
Black non-Hispanic	456,226	40.3%	241,907	44.6%	48,785	16.0%	10,729	24.1%
Asian	29,199	2.6%	14,199	2.6%	11,373	3.7%	1,250	2.8%
American Indian/Alaskan	2,222	0.2%	938	0.2%	428	0.1%	49	0.1%
Hawaiian/Pacific Islander	1,492	0.1%	790	0.1%	351	0.1%	39	0.1%
Other non-Hispanic	146	0.0%	66	0.0%	33	0.0%	*	0.0%
Mixed non-Hispanic	132	0.0%	56	0.0%	73	0.0%	*	0.0%
Unknown/declined to report	152,009	13.4%	94,169	17.3%	131,408	43.1%	17,433	39.2%
Property Type								
Public housing	314,201	27.8%	206,232	38.0%	89,013	29.2%	16,709	37.5%
Housing Choice vouchers	630,610	55.8%	226,884	41.8%	74,796	24.5%	9,005	20.2%
Other multifamily	170,340	15.1%	102,264	18.8%	91,469	30.0%	12,836	28.8%
Section 202	6,330	0.5%	2,817	0.5%	48,424	15.9%	5,750	12.9%
Section 811 & 202/162	2,736	0.2%	893	0.2%	298	0.1%	37	0.1%
Other	7,920	0.7%	3,815	0.7%	1,153	0.4%	168	0.4%
Subsidy Type								
Public housing	315,985	27.9%	206,874	38.1%	89,290	29.3%	16,753	37.6%
Housing Choice vouchers	636,520	56.3%	228,800	42.1%	75,351	24.7%	9,094	20.4%
Project-based Section 8	155,410	13.7%	88,143	16.2%	113,582	37.2%	15,259	34.3%
Section 202	467	0.0%	485	0.1%	18,258	6.0%	1,996	4.5%
Section 202/162	31	0.0%	11	0.0%	51	0.0%	*	0.0%
Section 811	2,627	0.2%	855	0.2%	294	0.1%	37	0.1%
Other	20,097	1.8%	17,737	3.3%	8,327	2.7%	1,359	3.1%
Elderly Designated Property[1]								
Yes	59,788	5.3%	40,523	7.5%	160,398	52.6%	20,102	45.2%
No	438,541	38.8%	274,457	50.6%	69,377	22.7%	15,328	34.4%
Unknown	632,808	55.9%	227,925	42.0%	75,378	24.7%	9,075	20.4%
Disability or Handicapped Status								
Yes	213,843	18.9%	53,557	9.9%	90,974	29.8%	13,511	30.4%
No	793,739	70.2%	407,938	75.1%	213,603	70.0%	30,833	69.3%
Unknown/declined to report	123,555	10.9%	81,410	15.0%	576	0.2%	161	0.4%

	HUD-Assisted Individuals (<65 Years)				HUD-Assisted Individuals (65+ Years)			
TABLE C8 (*continued*)								
	Linked to 2008 Medicaid Enrollment Files (N=1,131,137)		Did No Link to 2008 Medicaid Enrollment Files (N=542,905)		Linked to 2008 Medicaid Enrollment Files (N=305,153)		Did No Link to 2008 Medicaid Enrollment Files (N=44,505)	
	N	%	N	%	N	%	N	%
Living Arrangement								
Lives alone	123,759	10.9%	82,829	15.3%	209,450	68.6%	29,612	66.5%
Lives with spouse	12,890	1.1%	13,267	2.4%	55,419	18.2%	6,626	14.9%
Other adults	58,816	5.2%	59,545	11.0%	20,713	6.8%	4,277	9.6%
Children in household	925,455	81.8%	375,234	69.1%	14,537	4.8%	3,082	6.9%
Live-in aide	2,655	0.2%	2,779	0.5%	1,316	0.4%	224	0.5%
Other	105	0.0%	148	0.0%	19	0.0%	*	0.0%
Unknown/declined to report	7,457	0.7%	9,103	1.7%	3,699	1.2%	677	1.5%
SSI								
Receives SSI	198,457	17.5%	34,140	6.3%	134,484	44.1%	16,944	38.1%
Geographic Area								
Vermont	14,956	1.3%	2,910	0.5%	4,350	1.4%	270	0.6%
New Haven-Milford	31,451	2.8%	10,396	1.9%	7,016	2.3%	767	1.7%
Bridgeport-Stamford-Norwalk	19,831	1.8%	8,651	1.6%	5,538	1.8%	716	1.6%
Milwaukee-Waukesha-West Allis	34,094	3.0%	7,787	1.4%	8,373	2.7%	706	1.6%
San Francisco-Oakland-Fremont	82,586	7.3%	48,047	8.8%	29,542	9.7%	3,173	7.1%
Boston-Cambridge-Quincy	147,750	13.1%	46,386	8.5%	43,124	14.1%	4,799	10.8%
Durham-Chapel Hill	11,877	1.1%	4,271	0.8%	1,380	0.5%	206	0.5%
Richmond	11,005	1.0%	28,114	5.2%	1,185	0.4%	2,614	5.9%
New York-Northern New Jersey-Long Island	628,304	55.5%	349,780	64.4%	182,507	59.8%	29,141	65.5%
Columbus	51,159	4.5%	12,417	2.3%	7,107	2.3%	739	1.7%
Akron	25,598	2.3%	5,536	1.0%	3,467	1.1%	260	0.6%
Cleveland	72,526	6.4%	18,610	3.4%	11,564	3.8%	1,114	2.5%

NOTES:
1. As defined in the HUD data source.
* Cell sizes less than 11 are not displayed.

C. Estimate Proportion of HUD-Assisted Medicare Beneficiaries with Enrollment in Part D Subsidy Assistance Programs or Medical Savings Program (i.e., Medicaid)

As detailed in an October 2012 CBPP memo,[35] HUD-assisted individuals may have unreimbursed medical expenses deducted from their income for the purpose of determining the level of assistance provided by HUD. According to the CBPP, approximately 700,000 assisted households claim such expenses, which increase HUD rental subsidy costs by $400 to $500 million per year. Therefore, HUD is interested in understanding what proportion of HUD-assisted Medicare beneficiaries are enrolled in programs that could reduce their out-of-pocket health care expenses and therefore reduce HUD's costs. These programs include:

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[35] Center on Budget and Policy Priorities. October 2012. Reducing HUD Program Costs Associated with the Medical Deduction Policy.

1. **Medicare Part D (drug coverage) LIS**. Medicare Part D provides coverage for prescription medications and the LIS program assists beneficiaries with paying the premium and out-of-pocket expenses for their medication.

2. **Medicare Savings Program**. This is more commonly referred to as being a MME. Medicare beneficiaries may be eligible for Medicaid to assist with out-of-pocket expenses and to receive Medicaid-covered services that are not covered by Medicare (e.g., transportation).

Table C9 and Table C10 present the proportion of assisted Medicare beneficiaries, age 65 years or older enrolled in Part D LIS and Medicaid. Approximately 90% of the Medicare beneficiaries had Part D coverage. Among those with Part D coverage, 82% received premium and out-of-pocket assistance. This proportion increased to 90% among those under age 65. Approximately 72% of Medicare beneficiaries were dually enrolled in Medicare and Medicaid (83% of beneficiaries under age 65; 68% of beneficiaries age 65 and over). The majority (68%) of MMEs were QMB plus (receiving Medicaid assistance with Medicare expenses and fully eligible for Medicaid-covered services). Almost all of the remaining beneficiaries were "Other dual" (QDWIs not eligible for SLMB or QMB). These proportions were similar in both individuals under age 65 and age 65 or older. As expected, the Medicaid basis for eligibility was largely blind/disabled (95%) for beneficiaries under age 65 while for beneficiaries age 65 years or older it was aged (77%) followed by blind/disabled (23%). Among the 8% of all Medicare and Medicaid beneficiaries who had 1915c waiver, 78% was for aged or aged/disabled. Among beneficiaries less than 65 years of age with a 1915c waiver, almost 60% received the mental retardation and other developmental disabilities (MR/DD) waiver.

TABLE C9. HUD-Assisted Medicare Beneficiary Enrollment in Part D LIS, 2008			
Medicare Beneficiaries	**Total**	**Under Age 65**	**Age 65+**
Total	407,622	110,395	297,227
Part D Beneficiaries	365,812	102,927	262,885
Percent of Medicare Beneficiaries	89.7%	93.2%	88.5%
Part D LIS Participants	301,537	92,142	209,395
Percent of Part D with LIS	82.4%	89.5%	79.7%
Percent of Medicare with Part D LIS	74.0%	83.5%	70.4%
Percent of Medicare without Part D LIS	26.0%	16.5%	29.6%

It is important to note that the results presented in Table C9 and Table C10 are the proportion of all HUD-assisted Medicare beneficiaries who match based on the restrictive match criteria. It is not the proportion of HUD-assisted Medicare beneficiaries *who are eligible* for these programs based on national criteria for Part D LIS and criteria established by each state for Medicaid benefits. In other words, we would not expect the proportion to be 100% as not all HUD-assisted Medicare beneficiaries are eligible for these programs because the income criteria for HUD-assisted housing can be higher than that for health insurance assistance.

TABLE C10. HUD-Assisted Medicare Beneficiary Enrollment in Medicaid and Medicaid Coverage Characteristics, 2008			
Medicare Beneficiaries	Total	Under Age 65	Age 65+
Total Medicare beneficiaries	407,622	110,395	297,227
Medicare beneficiaries dually enrolled with Medicaid (MMEs)	293,317	91,564	201,753
Percent of Medicare with Medicaid	72.0%	82.9%	67.9%
Percent of Medicare without Medicaid	28.0%	17.1%	32.1%
Medicare and Medicaid eligibility status	293,317	91,564	201,753
QMB only	3.7%	4.9%	3.1%
QMB plus	66.9%	64.8%	67.8%
SLMB only	3.7%	3.4%	3.8%
SLMB Plus	1.6%	1.8%	1.5%
Other dual	23.3%	23.6%	23.2%
NA	0.8%	1.4%	0.5%
Medicaid basis for eligibility	293,317	91,564	201,753
Aged	53.2%	0.1%	77.3%
Blind/disabled	45.3%	95.3%	22.6%
Child	0.0%	0.0%	0.0%
Adult	1.4%	4.5%	0.1%
Other child of unemployed adult	0.0%	0.1%	0.0%
Medicaid maintenance of assistance	293,317	91,564	201,753
Receiving cash or eligible under Section 1931 of the Act	58.2%	48.4%	62.7%
Medically needy	13.7%	14.9%	13.2%
Poverty-related (includes children eligible under SCHIP expansion)	18.3%	23.9%	15.8%
Other	7.6%	9.5%	6.8%
Foster care child	0.0%	0.0%	0.0%
1115 demonstration expansion eligible	2.1%	3.2%	1.6%
Unknown	0.0%	0.0%	0.0%
Missing	0.0%	0.1%	0.0%
Beneficiaries with 1915c waiver status code	23,356	6,399	16,957
Percent of Medicare/Medicaid beneficiaries with 1915c waiver status code	8.0%	7.0%	8.4%
Type of 1915c waiver status code (among beneficiaries with a waiver)			
Aged and disabled	54.3%	25.0%	65.4%
Aged	23.6%	1.5%	31.9%
Disabled	3.0%	10.4%	0.1%
Brain injured	0.3%	1.1%	0.01%
HIV-AIDS	0.7%	2.2%	0.1%
MR/DD	18.1%	59.7%	2.4%
Mentally ill/severely emotionally disturbed	0.0%	0.0%	0.0%
Technology-dependent/medically fragile	0.0%	0.02%	0.0%

D. Compare Medicare and Medicaid Payment and Utilization for HUD-Assisted Beneficiaries and Unassisted Beneficiaries in the Community in the 12 Study Jurisdictions

After we identified the HUD-assisted individuals who were Medicare and/or Medicaid beneficiaries in 2008, the next objective was to compare HUD-assisted Medicare beneficiaries to unassisted beneficiaries in the community with regards to enrollment, chronic conditions, health care payment and utilization. Before comparing groups of beneficiaries, we first refined our study sample of Medicare beneficiaries (both HUD-assisted and unassisted beneficiaries in the 12 study jurisdictions). Figure C1 presents a graphical depiction of the inclusion criteria. Medicare beneficiaries had to be enrolled in Part A Hospital and Part B Physician Services for all 12 months of 2008 or up until death and not have any Medicare managed care (i.e., Medicare Part C or Medicare Advantage)[36] enrollment in 2008. This reduced the sample of Medicare beneficiaries 38%, down to 3.6 million. Approximately 7% of the Medicare beneficiaries were HUD-assisted individuals and 93% were unassisted in the community (data not shown).

FIGURE C1. Inclusion Criteria for HUD-Assisted and Unassisted Medicare Beneficiaries for Payment and Utilization Comparison

All Medicare beneficiaries
N=5,752,662

Enrolled in A&B for entire 12 month period or up until death
N=4,799,074 (83%)

Medicare Fee-for-service (FFS) only
N=3,562,032 (62%)
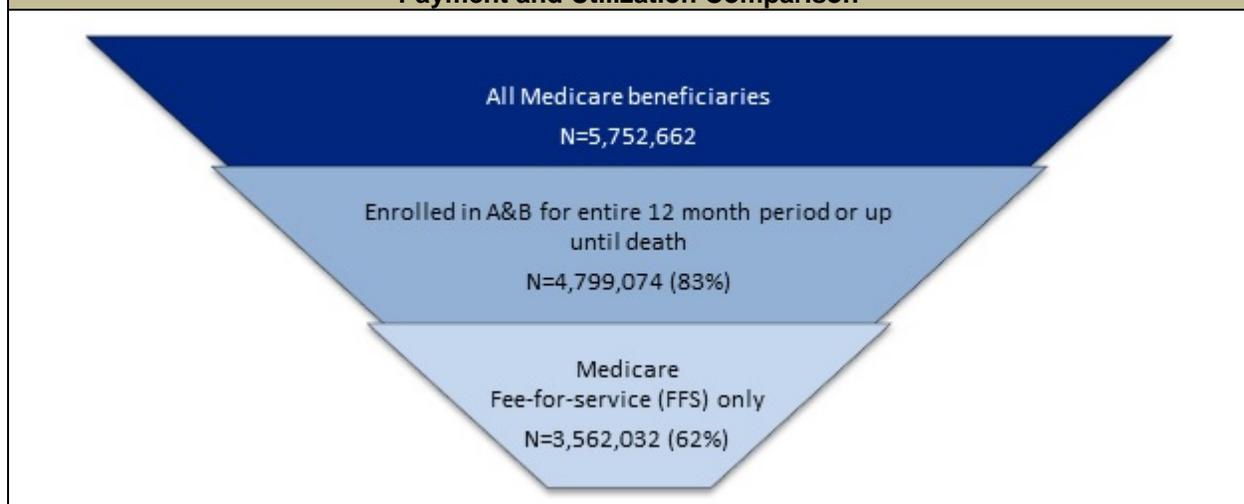
We expected HUD-assisted beneficiaries to differ dramatically from unassisted beneficiaries in the community with regards to health status, utilization, and payment given the differences in demographic factors (e.g., race, income) and Medicare and Medicaid program eligibility due to low income (e.g., Part D LIS and Medicaid participation defined above in Section C). This was supported by preliminary comparisons of HUD-assisted Medicare beneficiaries age 65+ and unassisted Medicare beneficiaries age 65+ in the community. We found:

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[36] We excluded individuals with any managed care enrollment as the CMS administrative data only has enrollment for individuals in managed care but does not have their claims data (i.e., health care cost and utilization data).

- After limiting our sample to HUD-assisted Medicare beneficiaries with continuous enrollment in Medicare Parts A and B with no Medicare managed care during 2008, **approximately 70% of HUD-assisted Medicare FFS beneficiaries age 65+** were dually enrolled in Medicaid compared to **only 13% of unassisted** Medicare FFS beneficiaries in the community.

- The average total medical and prescription drug PMPM Medicare paid was **$1,479 for HUD-assisted Medicare FFS beneficiaries** age 65+ compared to only **$937 for unassisted Medicare FFS beneficiaries** age 65+ in the community.

The higher expenditures for HUD-assisted Medicare beneficiaries likely reflects the much higher proportion of MMEs in the HUD-assisted sample. According to a recent study by the Kaiser Family Foundation, spending for MMEs was 1.8 times higher than for Medicare/No Medicaid counterparts.[37] Based on this knowledge, we stratified the Medicare beneficiaries into five sub-groups in an attempt to group similar beneficiaries into distinct samples to reduce variability between the HUD-assisted beneficiaries to the unassisted beneficiaries when comparing their Medicare enrollment characteristics and health care utilization and payment. We stratified the sample into five sub-groups:

- **Sub-group A (MMEs, all ages)**: MMEs, with no SNF or nursing facility[38] use in 2008.

- **Sub-group A1 (MMEs, age 65+)**: MMEs, Age 65+, with no SNF or nursing facility use in 2008.

- **Sub-group B (MMEs, all ages, SNF or nursing facility use)**: MMEs, with >0 and <365 days of SNF or nursing facility use in 2008 (*results presented in Appendix D only*).

- **Sub-group C (Medicare/No Medicaid)**: Medicare beneficiaries with no Medicaid enrollment, no SNF use in 2008.

- **Sub-group C1 (Medicare/No Medicaid, age 65+)**: Medicare beneficiaries with no Medicaid enrollment, age 65+, no SNF use in 2008.

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[37] Kaiser Family Foundation, Issue Brief, "Medicare's Role for Dual Eligible Beneficiaries", Gretchen Jacobson, Tricia Neuman, and Anthony Damico, April 2012.

[38] Given that beneficiaries residing in a nursing facility, for even a portion of the year, have poorer health status and therefore utilize more health care services compared to beneficiaries not in a nursing facility, accounting for that use becomes an important control factor. Due to incomplete information regarding the use of nursing facilities in the data available to us for this study and the fact that a higher proportion of individuals in the community sample used nursing facilities than in the HUD-assisted sample based on what we could observe 15% of unassisted beneficiaries in the community used Medicare SNF services compared to 8% HUD-assisted beneficiaries), we elected to remove all individuals with any nursing facility use that we could identify from both samples.

Table C11 presents the sample sizes for each of these five sub-groups on which we conducted comparisons of HUD-assisted Medicare beneficiaries to unassisted beneficiaries. We further stratified the HUD-assisted individuals by length of time receiving assistance during 2008 -- full year or part of the year.

TABLE C11. Five Subgroups for Comparison of Health and Health Care Utilization Among HUD-Assisted Beneficiaries and Unassisted Beneficiaries in the Community					
	HUD Full	HUD Partial	Total HUD-Assisted Beneficiaries	Unassisted Beneficiaries in the Community	Total
Exclusion Criteria					
All Medicare Beneficiaries	362,162	45,460	407,622	5,345,040	5,752,662
Medicare benes enrolled in A&B for entire 12 month period or up until death	326,707	36,450	363,157	4,435,917	4,799,074
No managed care/HMO (Medicare FFS only)	232,630	26,807	259,437	3,302,595	3,562,032
Sub-group sample sizes					
Sub-group A: Medicare/Medicaid benes, no SNF or NF days	162,010	15,046	177,056	446,751	623,807
Sub-group A1: Age 65+	104,416	7,629	112,045	249,490	361,535
Sub-group B: Medicare/Medicaid benes with >0 and <365 SNF/NF days	12,684	3,875	16,559	86,626	103,185
Sub-group C: Medicare/No Medicaid, 65+	45,566	5,406	50,972	2,453,763	2,504,735
Sub-group C1: Medicare/No Medicaid, 65+, No SNF days	42,286	4,520	46,806	2,318,394	2,365,200

1. Comparison of HUD-assisted fee-for-service MMEs and unassisted fee-for-service MMEs in the community, age 65+ in 12 study jurisdictions, 2008 (sub-group A1)

In 2008 in the 12 study jurisdictions, there were **112,045 HUD-assisted MMEs** and **249,490 unassisted MMEs** in the community age 65+. Tables C12-C17 present the findings when comparing HUD-assisted MMEs and unassisted MMEs in the community. Sub-group A1 consists of Medicare beneficiaries who were also enrolled in Medicaid, age 65 years or older without any utilization of SNF or nursing facility.

Table C12 compares the demographic characteristics between the HUD-assisted MMEs and unassisted MMEs. The two samples were statistically significantly different across all characteristics. However, the statistical difference is expected given the large sample size and it does not always equate to a meaningful difference. HUD-assisted MMEs had a higher proportion of Blacks (18% vs. 14%) and a lower proportion of Asian/Pacific Islander (13% vs. 18%). The distribution of beneficiaries differs slightly by geography. A higher proportion of HUD-assisted MMEs reside in Boston than unassisted beneficiaries (14% vs. 10%) and a lower proportion in Vermont (2% vs. 4%) and Milwaukee (3% vs. 5%). A higher proportion of unassisted MMEs died in 2008 than HUD-assisted MMEs (3% vs. 2%).

TABLE C12. HUD-Assisted and Unassisted MME Demographic Characteristics				
Demographic Characteristics	**HUD-Assisted MMEs (N=112,045)**		**Unassisted MMEs (N=249,490)**	
	N	**%**	**N**	**%**
Race (based on RTI variable)				
Non-Hispanic White	49,781	44.4%	109,981	44.1%
Hispanic	23,948	21.4%	50,563	20.3%
Black	20,116	18.0%	35,837	14.4%
Asian/Pacific Islander	14,949	13.3%	45,773	18.3%
American Indian/Alaska Native	107	0.1%	418	0.2%
Other	2,796	2.5%	6,289	2.5%
Unknown	348	0.3%	629	0.3%
Age Group				
65 to 74	51,253	45.7%	110,126	44.1%
75 to 79	24,728	22.1%	50,505	20.2%
80 to 84	19,715	17.6%	42,357	17.0%
85+	16,349	14.6%	46,502	18.6%
Geographic Area				
Vermont	2,621	2.3%	10,881	4.4%
New Haven-Milford	2,348	2.1%	4,408	1.8%
Bridgeport-Stamford-Norwalk	2,023	1.8%	3,541	1.4%
Milwaukee-Waukesha-West Allis	3,565	3.2%	12,130	4.9%
San Francisco-Oakland-Fremont	14,144	12.6%	32,726	13.1%
Boston-Cambridge-Quincy	15,702	14.0%	25,419	10.2%
Durham-Chapel Hill	467	0.4%	2,134	0.9%
Richmond	290	0.3%	2,933	1.2%
New York-Northern New Jersey-Long Island	64,345	57.4%	137,642	55.2%
Columbus	1,930	1.7%	4,572	1.8%
Akron	979	0.9%	1,930	0.8%
Cleveland	3,631	3.2%	7,558	3.0%
Missing	*	0.0%	3,616	1.4%
Died during the year	1,719	1.5%	6,456	2.6%
* Cell sizes less than 11 are not displayed.				

Table C13 presents the comparison of Medicare and Medicaid coverage and enrollment characteristics. Although our sample is limited to those dually eligible for Medicare and Medicaid, the basis for Medicaid eligibility differs for those receiving HUD assistance compared to those not receiving HUD assistance. Approximately 24% of HUD-assisted MMEs' basis for Medicaid eligibility was blind/disabled compared to only 15% of unassisted MMEs. Similarly, a higher proportion of HUD-assisted MMEs' Medicaid maintenance of assistance was due to receiving cash or eligibility under Section 1931 (68% vs. 55%) and a lower proportion was due to being medically needy[39] (10% vs. 15%) or poverty-related (15% vs. 19%). Finally, HUD-assisted Medicare and Medicaid beneficiaries are more likely to be QMB plus (78% vs. 65%) than unassisted beneficiaries.

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[39] Those determined "medically needy" have high medical expenditures, but have an income that exceeds maximum Medicaid income threshold. These individuals would otherwise be eligible for the program.

TABLE C13. HUD-Assisted and Unassisted MME Medicare and Medicaid Enrollment Characteristics				
Topic Area	HUD-Assisted MMEs (N=112,045)		Unassisted MMEs in the Community (N=249,490)	
	N	%	N	%
Medicaid Basis for Eligibility				
Aged	85,635	76.4%	212,431	85.1%
Blind/disabled	26,349	23.5%	36,636	14.7%
Child	*	0.0%	*	0.0%
Adult	49	0.0%	234	0.1%
Other/missing/unknown	*	0.0%	187	0.1%
Medicaid Maintenance of Assistance				
Receiving cash or eligible under Section 1931 of the Act	76,083	67.9%	136,914	54.9%
Medically needy	11,346	10.1%	36,414	14.6%
Poverty-related (includes children eligible under SCHIP expansion)	16,497	14.7%	46,345	18.6%
Other	5,940	5.3%	16,739	6.7%
Foster care child	*	0.0%	*	0.0%
1115 demonstration expansion eligible	2,169	1.9%	12,896	5.2%
Unknown/missing	*	0.0%	182	0.1%
Medicare and Medicaid Eligibility Status				
QMB only	3,138	2.8%	8,829	3.5%
QMB plus	87,111	77.7%	163,146	65.4%
SLMB only	3,567	3.2%	11,540	4.6%
SLMB Plus	1,317	1.2%	3,020	1.2%
Other dual	16,817	15.0%	62,374	25.0%
Unknown	*	0.0%	174	0.1%
NA	85	0.1%	407	0.2%
* Cell sizes less than 11 are not displayed.				

Note: We initially separated HUD-assisted MMEs into those receiving HUD assistance all year vs. a portion of the year. There were no meaningful differences between the two samples so we combined them. See Appendix D for results separated by partial vs. all year receiving HUD assistance.

Table C14 compares the presence and count of chronic conditions among the Sub-group A1 HUD-assisted MMEs and unassisted MMEs in the community. HUD-assisted MMEs are, on average, more chronically ill than the unassisted MMEs. First, HUD-assisted MMEs are more likely to have multiple chronic diseases; 55% have five or more compared to 43% of unassisted MMEs. The prevalence of eight of the nine chronic condition categories is also higher among HUD-assisted MMEs. The one exception is Alzheimer's which is 1 percentage point higher (16% vs. 15%) among unassisted MMEs which is most likely due to the fact that individuals with Alzheimer's and related diseases tend to require more care than can be provided in a public housing or related property.

TABLE C14. MMEs with Chronic Condition Count and Prevalence, Age 65+, 2008, 12 Study Jurisdictions

CCW Condition	HUD-Assisted MMEs (N=112,045)		Unassisted MMEs in the Community (N=249,490)	
	N	%	N	%
Prevalence of Chronic Conditions				
0 conditions	6,031	5.4%	24,404	9.8%
1 condition	6,571	5.9%	20,686	8.3%
2 conditions	9,765	8.7%	27,678	11.1%
3 conditions	13,398	12.0%	34,387	13.8%
4 conditions	15,210	13.6%	34,878	14.0%
5 or more conditions	61,070	54.5%	107,457	43.1%
Prevalence of Chronic Conditions by Category				
Cardiovascular	62,012	55.3%	120,344	48.3%
Cancer	9,162	8.2%	17,269	6.9%
Endocrine and Renal	60,076	53.6%	118,124	47.4%
Alzheimer's-related	16,427	14.7%	39,691	15.9%
Depression	18,603	16.6%	28,774	11.5%
Musculoskeletal	55,129	49.2%	94,354	37.9%
Pulmonary	21,352	19.0%	39,209	15.7%
Opthalmic	42,910	38.3%	76,172	30.6%
Other (Anemia, Hyperlipidemia, Hyperplasia, Hypertension)	96,642	86.2%	196,465	78.8%

Table C15 provides a comparison of health care service utilization between HUD-assisted MMEs and unassisted MMEs in Sub-group A1 (dually eligible for Medicaid, age 65 years or older, with no SNF/nursing facility use in 2008). With the exception of dialysis, the difference in utilization (as defined as per 1,000 member months) was statistically significant for all health care services. HUD-assisted MMEs were higher utilizers of health care services. The higher utilization was most notable for home health visits (31% higher), ASC visits (45% higher), other procedures (78% higher), DME (22% higher), and Part B and D drugs (22% and 24% higher, respectively). HUD-assisted MMEs also had a 26% higher rate of physician office visits and 13% higher rate of total emergency room visits. In addition, the proportion of HUD-assisted MMEs with any use was statistically significantly higher across all services but dialysis (data not shown, see ***Appendix D***). As expected, this higher utilization resulted in higher average medical and pharmacy PMPM payments for HUD-assisted MMEs than unassisted MMEs ($1,222 vs. $1,054) (data not shown, see ***Appendix D***).

TABLE C15. Comparison of HUD-Assisted MME and Unassisted MME Medicare Health Care Utilization			
Medicare Services Annual Utilization per 1000 Member Months[1]	HUD-Assisted MMEs (N=112,045) Mean	Unassisted MMEs (N=249,490) Mean	Ratio of HUD-Assisted vs. Unassisted
Total Admissions	32.8	30.9	1.06**
Acute stay admissions	31.4	29.4	1.07**
Other inpatient admissions[2]	1.4	1.6	0.90**
Hospital Readmissions	5.2	4.9	1.06*
Medicare HH visits	581.5	445.5	1.30*
Medicare hospice days	36.9	208.1	0.18*
Hospital Outpatient visits[3]	686.5	590.5	1.16**
Total ER visits	58.4	51.6	1.13**
ER visits without an admission	36.6	30.6	1.19**
ER visits resulting in an admission	21.9	21.0	1.04**
Physician office visits	1,652.3	1,307.9	1.26**
ASC visits	14.5	10.0	1.45**
Dialysis events	17.0	17.3	0.98
Anesthesia events	27.8	23.7	1.17**
Imaging events	510.5	420.1	1.21**
Test events	1,762.2	1,428.5	1.23**
Other procedures	1,464.6	821.6	1.78**
DME	369.2	301.4	1.22**
Part B Drugs	296.1	241.8	1.22**
Part D Drugs[4]	5,080.1	4,094.3	1.24**

NOTES:
1. Utilization per 1000 member months calculated as number of total services across all MMEs divided by number of months enrolled for all MMEs in 2008 multiplied by 1000.
2. Non-acute inpatient settings include long-term care settings, like nursing facilities.
3. This variable is the count of unique revenue center dates (as a proxy for visits) in the hospital outpatient setting for a given year.
4. Limited to Medicare beneficiaries with Part D coverage.

** p<0.01; * p<0.05

The higher utilization of health care services among MMEs receiving HUD assistance than beneficiaries without HUD assistance is even more apparent when comparing utilization and payments of Medicaid-covered services[40] (Table C16 and Table C17). HUD-assisted MMEs used over 100% more Personal Care services,[41] 80% more other HCBS, and 67% more DME services covered by Medicaid than unassisted MMEs. This suggests that the poorer health status of HUD-assisted MMEs increases their likelihood of needing HCBS and/or relationships between the property

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[40] Services only available through Medicaid health insurance, not covered by Medicare. We excluded MMEs with Medicaid managed care enrollment from the calculation of Medicaid cost and utilization as we do not have their complete health care cost and utilization data (similarly to those with Medicare managed care).

[41] Personal Care Services include a range of human assistance provided to persons with disabilities and chronic conditions of all ages, enabling them to accomplish tasks they would normally do for themselves if they did not have a disability, including ADLs (such as eating, bathing, dressing, and bladder and bowel requirements) or IADLs (such as taking medications and shopping for groceries.

management and community supports make these services more available to HUD-assisted individuals.

TABLE C16. Comparison of HUD-Assisted MME and Unassisted MME Medicaid Health Care Utilization per 1000 Member Months[1]					
Topic Area	HUD-Assisted MMEs		Unassisted MMEs		Ratio of HUD-Assisted vs. Unassisted
	N	%	N	%	
Limited to individuals with Medicaid FFS	106,764	95%	227,186	91%	
	Mean	SD	Mean	SD	
Personal care services	4,512.4	10,047.1	2,149.1	7,128.2	2.09**
Residential care	38.9	683.0	63.7	1,164.3	0.61**
DME	380.0	946.2	227.7	746.9	1.67**
Other HCBS (private duty nursing, adult day care, HH, rehab, targeted case management, transportation, and hospice)	3,309.8	8,321.7	1,840.6	6,675.4	1.79**
NOTE: 1. Limited to MMEs with Medicaid FFS only. In other words, MMEs with any Medicaid managed care enrollment during 2008 are excluded from this table and the Medicaid utilization and cost comparison. ** p<0.01; * p<0.05					

On the other hand, unassisted MMEs used 60% more Residential Care services than unassisted MMEs. Residential care settings, including assisted living facilities, have traditionally provided assistance and oversight to persons with physical and mental impairments who cannot live at home alone, but do not require a nursing home level of care. As such, residential care lies on the long-term care continuum between home care and nursing facility care. Since residential care settings generally require licensure by the state, HUD properties generally do not provide Medicaid reimbursed residential care. This higher utilization drove the 32% higher average Medicaid PMPM for HUD-assisted MMEs compared to unassisted MMEs ($1,180 vs. $895). (Data not shown, see *Appendix D*.)

TABLE C17. Comparison of HUD-Assisted MME and Unassisted MME Medicaid Health Care Utilization, Proportion of MMEs with Any Use					
	HUD-Assisted MMEs		Unassisted MMEs		Ratio of HUD-Assisted vs. Unassisted
	N	%	N	%	
Personal Care services	30,186	28%	32,885	14%	0.92**
Residential care	1,931	2%	2,696	1%	0.72**
DME	53,927	51%	79,598	35%	0.67**
Other HCBS	43,929	41%	57,815	25%	0.76**
NOTE: 1. Limited to MMEs with Medicaid FFS only. In other words, MMEs with any Medicaid managed care enrollment during 2008 are excluded from this table and the Medicaid utilization and cost comparison. ** p<0.01; * p<0.05					

Sub-group A: Medicare/Medicaid Beneficiaries, No SNF or Nursing Facility Days

We also compared demographic, enrollment, and health care payment and utilization for all Medicare/Medicaid beneficiaries with no SNF or nursing facility days, regardless of age (Sub-group A1 in Table C11 above). This almost doubled the sample size from 361,535 when limited to individuals age 65 years or older to 623,807. The tables providing this comparison are included in **Appendix D**. In summary, the findings are similar to those highlighted for Sub-group A1 (when limited to individuals 65 years or older) with a couple of exceptions. Most notably, although the HUD-assisted Medicare/Medicaid beneficiaries have much higher Medicare and Medicaid health care service utilization, the Medicaid spending PMPM was actually 6% lower for the unassisted Medicare/Medicaid beneficiaries. This is largely driven by the lower payment for residential services ($47 for HUD-assisted beneficiaries vs. $165 for unassisted beneficiaries).

2. Comparison of HUD-Assisted FFS Medicare/No Medicaid[42] Beneficiaries and Unassisted FFS Medicare/No Medicaid Beneficiaries in the Community, Age 65+ in 12 Study Jurisdictions, 2008 (Sub-group C1)

In 2008 in the 12 study jurisdictions, there were **46,806 FFS HUD-assisted Medicare/No Medicaid beneficiaries** and **2,318,394 unassisted beneficiaries** in the community age 65+. Tables C18-C20 compare HUD-assisted to unassisted Medicare/No Medicaid beneficiaries. Similar to the results for Sub-group A1 above, in this section the tables provide comparisons of demographic characteristics, Medicare enrollment characteristics, chronic conditions, and Medicare health care utilization and payments. Unlike the previous comparison of MMEs, estimates below do not control for income and, therefore, we would expect that the HUD-assisted Medicare/No Medicaid beneficiaries would generally have lower income and greater social determinants of health than their community counterparts.

Table C18 provides a comparison of the demographic and Medicare enrollment characteristics for HUD-assisted Medicare/No Medicaid beneficiaries relative to unassisted beneficiaries. HUD-assisted beneficiaries are much more likely to be female (71% vs. 57%), Black (24% vs. 7%), and 85 years and over (23% vs. 16%) than unassisted beneficiaries. HUD-assisted beneficiaries are also more likely to have received Medicare originally due to disability (15% vs. 6%) and receive Part D LIS (32% vs. 6%) than unassisted beneficiaries.

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[42] No Medicaid enrollment.

TABLE C18. HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Beneficiaries, Age 65+, 2008, by Demographic and Coverage Characteristics				
	HUD-Assisted Medicare/No Medicaid Beneficiaries (N=46,806)		Unassisted Medicare/No Medicaid Beneficiaries (N=2,318,394)	
	N	%	N	%
Demographic Characteristics				
Gender				
Male	13,428	28.7%	997,877	43.0%
Female	33,378	71.3%	1,320,517	57.0%
Missing	0	0.0%	0	0.0%
Race (based on RTI variable)				
Non-Hispanic White	30,115	64.3%	2,023,130	87.3%
Hispanic	4,460	9.5%	75,090	3.2%
Black	11,338	24.2%	153,339	6.6%
Asian/Pacific Islander	570	1.2%	45,354	2.0%
American Indian/Alaska Native	28	0.1%	679	0.0%
Other	258	0.6%	18,994	0.8%
Unknown	37	0.1%	1,808	0.1%
Age Group				
65 to 69	8,207	17.5%	531,472	22.9%
70 to 74	9,347	20.0%	546,599	23.6%
75 to 79	9,192	19.6%	468,478	20.2%
80 to 84	9,415	20.1%	398,836	17.2%
85+	10,645	22.7%	373,009	16.1%
Medicare Coverage Characteristics				
Original reason for entitlement				
Old age and survivor's insurance	39,829	85.1%	2,181,228	94.1%
DIB	6,921	14.8%	134,856	5.8%
ESRD	28	0.1%	1,316	0.1%
Disability Insurance and ESRD	28	0.1%	994	0.0%
Medicare Part D coverage at any point during the year	25,782	55.1%	866,629	37.4%
Average months of Part D coverage (among those with Part D coverage)	11.75		11.77	
Proportion with Part D LIS				
No Part D LIS (premium-subsidy nor cost sharing)	16,279	63.1%	774,363	89.4%
Part D LIS (Any premium-subsidy or cost sharing	8,363	32.4%	51,301	5.9%
Missing	1,140	4.4%	40,965	4.7%

Table C19 shows the proportion of HUD-assisted and unassisted Medicare/No Medicaid beneficiaries with chronic conditions -- by count and type. Unlike the HUD-assisted MMEs age 65 or older (Sub-group A1 above), the HUD-assisted Medicare/No Medicaid beneficiaries of the same age group are more similar to the unassisted Medicare/No Medicaid beneficiaries with regards to health status. Approximately 14% of HUD-assisted Medicare/No Medicaid beneficiaries had zero chronic conditions compared to 13% of unassisted Medicare/No Medicaid beneficiaries. As highlighted in Table C14 above, only 5% of HUD-assisted had zero chronic conditions compared to 10% of unassisted Medicare/Medicaid beneficiaries. Not only were the proportions of the HUD-assisted and unassisted Medicare/No Medicaid beneficiaries with chronic conditions more similar than for the HUD and unassisted Medicare/Medicaid beneficiaries, the prevalence of chronic conditions was not consistently higher for the HUD-assisted Medicare/No Medicaid beneficiaries. In fact, the unassisted Medicare/No

Medicaid beneficiaries had a higher proportion of cancer (10% vs. 9%) and ophthalmic (37% vs. 32%).

	HUD-Assisted Medicare/No Medicaid Beneficiaries (N=46,806)		Unassisted Medicare/No Medicaid Beneficiaries (N=2,318,394)	
TABLE C19. HUD-Assisted Medicare/No Medicaid and Unassisted Beneficiaries with Chronic Condition Count and Prevalence, Age 65+, 2008, 12 Study Jurisdictions				
CCW Condition	**N**	**%**	**N**	**%**
Prevalence of Chronic Conditions				
0 conditions	6,624	14.2%	299,936	12.9%
1 condition	3,972	8.5%	249,962	10.8%
2 conditions	5,245	11.2%	312,462	13.5%
3 conditions	6,472	13.8%	358,219	15.5%
4 conditions	6,669	14.2%	339,586	14.6%
5 or more conditions	17,824	38.1%	758,229	32.7%
Prevalence of Chronic Conditions by Category				
Cardiovascular	20,638	44.1%	952,061	41.1%
Cancer	4,105	8.8%	238,416	10.3%
Endocrine and renal	19,313	41.3%	800,924	34.5%
Alzheimer's-related	3,543	7.6%	179,304	7.7%
Depression	3,930	8.4%	167,119	7.2%
Musculoskeletal	15,494	33.1%	719,065	31.0%
Pulmonary	6,777	14.5%	246,619	10.6%
Opthalmic	15,098	32.3%	847,512	36.6%
Other (anemia, hyperlipidemia, hyperplasia, hypertension)	35,030	74.8%	1,696,319	73.2%

Table C20 provides a comparison of Medicare health care utilization between the HUD-assisted Medicare/No Medicaid and unassisted Medicare/No Medicaid beneficiaries age 65 or older. Similarly to the variability between the higher prevalence of chronic conditions between the two groups, the utilization by HUD-assisted beneficiaries was higher for some services and lower for others when compared to unassisted beneficiaries. In particular, the HUD-assisted beneficiaries used 42% more emergency room visits per 1000 member months than unassisted beneficiaries. The admission rate was 19% higher and the readmission rate was 17% higher for HUD-assisted Medicare/No Medicaid beneficiaries. In addition, 29% of HUD-assisted Medicare/No Medicaid beneficiaries visited the emergency room at least one during 2008 compared to only 23% of unassisted Medicare/No Medicaid beneficiaries. Interestingly, the utilization of office visits was 1% lower for the HUD-assisted beneficiaries and 13% of HUD-assisted beneficiaries did not have any office visits during 2008 compared to 9% of unassisted beneficiaries (data not shown, see Appendix D). The HUD-assisted beneficiaries also had lower utilization of hospice services, ambulatory care surgery, tests, other services, and Part B pharmacy. Overall, the Medicare PMPM was 8% higher for HUD-assisted Medicare/No Medicaid beneficiaries than unassisted Medicare/No Medicaid beneficiaries ($617 vs. $574) (data not shown, see *Appendix D*).

TABLE C20. Comparison of HUD-Assisted Medicare/No Medicaid Beneficiaries and Unassisted Medicare/No Medicaid Beneficiaries' Medicare Health Care Utilization			
Medicare Services Annual Utilization per 1000 Member Months	**HUD-Assisted Medicare Beneficiaries (N=46,806)**	**Unassisted Medicare Beneficiaries (N=2,318,394)**	**Ratio of HUD-Assisted vs. Unassisted**
	Mean	**Mean**	
Total Admissions	23.0	19.3	1.19**
Acute stay admissions	21.7	18.2	1.19**
Other inpatient admissions[1]	1.3	1.1	1.20**
Hospital Readmissions	2.7	2.3	1.17**
Medicare HH visits	220.5	136.0	1.62**
Medicare hospice days	36.5	77.6	0.47**
Total outpatient visits	444.8	409.5	1.09**
Total ED visits	43.0	30.4	1.42**
ED visits without an admission	27.2	18.8	1.45**
ED visits resulting in an admission	15.8	11.6	1.37**
Physician office visits	1,145.2	1,129.1	1.01*
ASC visits	12.7	16.0	0.79**
Dialysis events	6.5	4.8	1.36**
Anesthesia events	25.9	29.2	0.89**
Imaging events	378.2	382.2	0.99*
Test events	1,347.0	1,416.9	0.95**
Other procedures	527.2	635.4	0.83**
DME	180.7	139.0	1.30**
Part B Drugs	205.7	242.2	0.85**
Part D Drugs	2983.9	2496.0	1.20**
NOTE: 1. Non-acute inpatient settings include long-term care settings, like inpatient rehabilitation facilities. ** p<0.01; * p<0.05			

Sub-group C: Medicare Only Beneficiaries, Age 65+ Years

We also compared demographic, enrollment, and health care payment and utilization for all Medicare/No Medicaid beneficiaries age 65+ years, regardless of SNF use during 2008. Approximately 8% of HUD-assisted Medicare/No Medicaid beneficiaries utilized SNF services in 2008 compared to 6% of unassisted Medicare/No Medicaid beneficiaries (see Table C11). Despite the slightly different proportion of SNF users in the two groups, we also conducted the comparison between HUD-assisted and unassisted Medicare/No Medicaid beneficiaries including individuals with SNF utilization in 2008. As expected, given the higher proportion of individuals with SNF utilization among the HUD-assisted group, the differences in utilization and payments widened. HUD-assisted Medicare/No Medicaid beneficiaries admission rate was 29% higher than unassisted beneficiaries and the readmission utilization was 37% higher. Not surprisingly, HUD-assisted Medicare/No Medicaid beneficiaries had 18% higher payments than unassisted Medicare/No Medicaid beneficiaries (difference was only 8% when individuals with SNF utilization were excluded). See **Appendix D** for result tables.

APPENDIX D. SUPPLEMENTAL RESULTS, ALL YEARS

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Objective A: Understand Demographic Characteristics of HUD-Assisted Individuals/Households in the 12 Study Jurisdictions

TABLE D-A1. HUD-Assisted Individuals Full vs. Partial Year, by Year (All Ages)						
All Ages	**2007 (N=1,976,053)**		**2008 (N=2,057,893)**		**2009 (N=2,075,168)**	
	N	**%**	**N**	**%**	**N**	**%**
Full year participants	1,703,863	86.2%	1,783,202	86.7%	1,812,869	87.4%
Partial year participants	272,190	13.8%	274,691	13.3%	262,299	12.6%
Reason for Partial Year						
Moved Out/Terminated	110,767	40.7%	110,370	40.2%	114,352	43.6%
Moved in after Jan 1	161,423	59.3%	164,321	59.8%	147,947	56.4%
Total	272,190		274,691		262,299	
Property Type						
Public housing	579,609	29.3%	635,906	30.9%	628,247	30.3%
Housing choice vouchers	933,950	47.3%	960,387	46.7%	978,717	47.2%
Other multifamily	381,442	19.3%	381,078	18.5%	388,287	18.7%
Section 202	63,860	3.2%	63,033	3.1%	61,282	3.0%
Section 811 & 202/162	3,970	0.2%	3,993	0.2%	4,125	0.2%
Other	13,222	0.7%	13,496	0.7%	14,510	0.7%
Subsidy Type						
Public housing	581,145	29.4%	638,584	31.0%	631,419	30.4%
Housing choice vouchers	939,231	47.5%	969,140	47.1%	987,160	47.6%
Project-Based Section 8	382,634	19.4%	376,552	18.3%	378,662	18.2%
Section 202	21,499	1.1%	21,386	1.0%	21,941	1.1%
Section 202/162	102	0.0%	100	0.0%	100	0.0%
Section 811	3,892	0.2%	3,839	0.2%	3,953	0.2%
Other	47,550	2.4%	48,292	2.3%	51,933	2.5%

TABLE D-A2. HUD-Assisted Individuals Full vs. Partial Year, by Year (Age 62+)						
All Ages	**2007 (N=383,576)**		**2008 (N=398,791)**		**2009 (N=407,428)**	
	N	**%**	**N**	**%**	**N**	**%**
Full year participants	335,478	87.5%	353,789	88.7%	359,702	88.3%
Partial year participants	48,098	12.5%	45,002	11.3%	47,726	11.7%
Reason for Partial Year						
Moved Out/Terminated	23,230	48.3%	22,815	50.7%	26,846	56.3%
Moved in after Jan 1	24,868	51.7%	22,187	49.3%	20,880	43.7%
Total	48,098		45,002		47,726	
Property Type						
Public housing	113,601	29.6%	123,557	31.0%	124,536	30.6%
Housing choice vouchers	94,704	24.7%	100,504	25.2%	106,168	26.1%
Other multifamily	115,892	30.2%	115,733	29.0%	118,769	29.2%
Section 202	57,168	14.9%	56,604	14.2%	55,182	13.5%
Section 811 & 202/162	451	0.1%	517	0.1%	582	0.1%
Other	1,760	0.5%	1,876	0.5%	2,191	0.5%
Subsidy Type						
Public housing	113,778	29.7%	123,930	31.1%	124,961	30.7%
Housing choice vouchers	95,198	24.8%	101,292	25.4%	106,871	26.2%
Project-Based Section 8	141,873	37.0%	140,804	35.3%	141,077	34.6%
Section 202	21,056	5.5%	20,969	5.3%	21,532	5.3%
Section 202/162	63	0.0%	66	0.0%	62	0.0%
Section 811	451	0.1%	507	0.1%	567	0.1%
Other	11,157	2.9%	11,223	2.8%	12,358	3.0%

TABLE D-A3. HUD-Assisted Individuals Full vs. Partial Year, by Year (Age 65+)						
All Ages	**2007 (N=340,297)**		**2008 (N=352,091)**		**2009 (N=357,207)**	
	N	**%**	**N**	**%**	**N**	**%**
Full year participants	298,227	87.6%	313,035	88.9%	316,008	88.5%
Partial year participants	42,070	12.4%	39,056	11.1%	41,199	11.5%
Reason for Partial Year						
Moved Out/Terminated	21,306	50.6%	20,876	53.5%	24,361	59.1%
Moved in after Jan 1	20,764	49.4%	18,180	46.5%	16,838	40.9%
Total	42,070		39,056		41,199	
Property Type						
Public housing	98,198	28.9%	106,306	30.2%	106,502	29.8%
Housing choice vouchers	80,376	23.6%	84,635	24.0%	88,421	24.8%
Other multifamily	105,213	30.9%	104,914	29.8%	107,208	30.0%
Section 202	54,885	16.1%	54,560	15.5%	53,159	14.9%
Section 811 & 202/162	331	0.1%	336	0.1%	364	0.1%
Other	1,294	0.4%	1,340	0.4%	1,553	0.4%
Subsidy Type						
Public housing	98,352	28.9%	106,634	30.3%	106,880	29.9%
Housing choice vouchers	80,792	23.7%	85,296	24.2%	89,015	24.9%
Project-Based Section 8	130,651	38.4%	129,608	36.8%	129,308	36.2%
Section 202	20,319	6.0%	20,399	5.8%	20,932	5.9%
Section 202/162	56	0.0%	58	0.0%	56	0.0%
Section 811	322	0.1%	333	0.1%	362	0.1%
Other	9,805	2.9%	9,763	2.8%	10,654	3.0%
Number of Household Heads	**303,695**		**311,657**		**314,014**	

TABLE D-A4. HUD-Assisted Individuals Across Consecutive Years Full vs. Partial						
	2007-2008		2008-2009		2007-2009	
	N	%	N	%	N	%
All ages	**2,277,570**	**100.0%**	**2,292,744**	**100.0%**	**2,490,435**	**100.0%**
Full year participants	1,478,133	64.9%	1,556,238	67.9%	1,299,352	52.2%
Partial year participants	799,437	35.1%	736,506	32.1%	1,191,083	47.8%
62+	**454,076**	**100.0%**	**445,035**	**100.0%**	**481,175**	**100.0%**
Full year participants	324,974	71.6%	328,151	73.7%	289,885	60.2%
Partial year participants	129,102	28.4%	116,884	26.3%	191,290	39.8%
65+	**402,714**	**100.0%**	**391,434**	**100.0%**	**424,729**	**100.0%**
Full year participants	288,879	71.7%	289,667	74.0%	256,851	60.5%
Partial year participants	113,835	28.3%	101,767	26.0%	167,878	39.5%

TABLE D-A5. Living Arrangement, HUD-Assisted Individuals, All Ages and Age 62+ Years						
	2007		2008		2009	
	N	%	N	%	N	%
Individuals, All Ages	1,976,053	100.0%	2,057,893	100.0%	2,075,168	100.0%
Living Arrangement						
Lives Alone	437,101	22.1%	450,410	21.9%	456,085	22.0%
Lives with Spouse	85,453	4.3%	89,066	4.3%	90,291	4.4%
Other Adults	129,066	6.5%	144,705	7.0%	154,862	7.5%
Minor(s) in Household	1,299,636	65.8%	1,345,190	65.4%	1,341,700	64.7%
Live-in Aide	5,870	0.3%	7,039	0.3%	7,884	0.4%
Other	327	0.0%	283	0.0%	282	0.0%
Unknown/declined to report	18,600	0.9%	21,200	1.0%	24,064	1.2%
Individuals, Age 62+	383,576	100.0%	398,791	100.0%	407,428	100.0%
Living Arrangement						
Lives Alone	260,849	68.0%	267,751	67.1%	271,561	66.7%
Lives with Spouse	65,851	17.2%	68,694	17.2%	70,178	17.2%
Other Adults	27,398	7.1%	30,603	7.7%	32,351	7.9%
Minor(s) in Household	22,883	6.0%	24,130	6.1%	24,282	6.0%
Live-in Aide	1,553	0.4%	1,877	0.5%	2,143	0.5%
Other	36	0.0%	38	0.0%	36	0.0%
Unknown/declined to report	5,006	1.3%	5,698	1.4%	6,877	1.7%
Living with Minor(s) in the Household						
Age 62+ with minor(s) in the home	22,883	6.0%	24,130	6.1%	24,282	6.0%
Age 62+ without minor(s) in the home	360,693	94.0%	374,661	93.9%	383,146	94.0%

TABLE D-A6. Living Arrangement, HUD-Assisted Households, All Ages						
	2007		2008		2009	
	N	%	N	%	N	%
Household Heads, All Ages	939,775	100.0%	967,557	100.0%	971,094	100.0%
Living arrangement--By Household						
Lives Alone	435,146	46.3%	448,556	46.4%	454,313	46.8%
Lives with Spouse	45,794	4.9%	45,985	4.8%	45,131	4.6%
Other Adults	63,408	6.7%	68,751	7.1%	71,227	7.3%
Children in Household	386,513	41.1%	394,260	40.7%	388,653	40.0%
Live-in Aide	2,690	0.3%	3,131	0.3%	3,477	0.4%
Other	94	0.0%	78	0.0%	74	0.0%
Unknown/declined to report	6,130	0.7%	6,796	0.7%	8,219	0.8%

TABLE D-A7a. HUD-Assisted Individual Demographics, 2008		
	Unique Individuals Receiving Public Housing Subsidy During 2008 (N=2,057,893)	
	Mean	SD
Age		
Age--All Persons	34.89	25.32
Age--Household Heads	54.22	18.77
	N	%
Gender		
Male	765,169	37.2%
Female	1,291,140	62.7%
Unknown/declined to report	1,584	0.1%
Age Group		
<18	764,543	37.2%
18-44	566,059	27.5%
45-61	327,067	15.9%
62-64	46,700	2.3%
65+	352,091	17.1%
Unknown/declined to report	1,433	0.1%
Race/Ethnicity		
White non-Hispanic	331,944	16.1%
Hispanic	489,337	23.8%
Black non-Hispanic	773,550	37.6%
Asian	56,934	2.8%
American Indian/Alaskan	3,699	0.2%
Hawaiian/Pacific Islander	2,762	0.1%
Other non-Hispanic	259	0.0%
Mixed non-Hispanic	275	0.0%
Unknown/declined to report	399,133	19.4%
Property Type		
Public housing	635,906	30.9%
Housing choice vouchers	960,387	46.7%
Other multifamily	381,078	18.5%
Section 202	63,033	3.1%
Section 811 & 202/162	3,993	0.2%
Other	13,496	0.7%
Subsidy Type		
Public housing	638,584	31.0%
Housing choice vouchers	969,140	47.1%
Project-Based Section 8	376,552	18.3%
Section 202	21,386	1.0%
Section 202/162	100	0.0%
Section 811	3,839	0.2%
Other	48,292	2.3%
Disability or Handicapped Status		
Yes	376,339	18.3%
No	1,472,679	71.6%
Unknown/declined to report	208,875	10.1%
Geographic Area		
Vermont	22,635	1.1%
New Haven-Milford	50,201	2.4%
Bridgeport-Stamford-Norwalk	35,326	1.7%
Milwaukee-Waukesha-West Allis	51,555	2.5%
San Francisco-Oakland-Fremont	167,795	8.2%
Boston-Cambridge-Quincy	243,601	11.8%
Durham-Chapel Hill	17,450	0.9%
Richmond	43,196	2.1%
New York-Northern New Jersey-Long Island	1,213,201	59.0%
Columbus	72,332	3.5%
Akron	35,409	1.7%
Cleveland	104,697	5.1%

TABLE D-A7b. HUD-Assisted Individuals Demographics, 2007-2009*		
	Unique Individuals Receiving Public Housing Subsidy During 2007, 2008, or 2009* (N=2,490,435)	
	Mean	**SD**
Age		
Age--All Persons	34.96	25.34
Age--Household Heads	54.80	19.06
	N	**%**
Gender		
Male	944,759	48.31%
Female	1,544,019	78.95%
Unknown/declined to report	1,657	0.07%
Age group		
<18	888,052	192.81%
18-44	735,274	159.64%
45-61	384,500	83.48%
62-64	56,446	12.26%
65+	424,729	92.22%
Unknown/declined to report	1,434	0.31%
Race/Ethnicity		
White non-Hispanic	411,743	15.92%
Hispanic	590,807	22.84%
Black non-Hispanic	953,141	36.85%
Asian	69,622	2.69%
American Indian/Alaskan	4,545	0.18%
Hawaiian/Pacific Islander	3,657	0.14%
Other non-Hispanic	949	0.04%
Mixed non-Hispanic	741	0.03%
Unknown/declined to report	455,230	17.60%
Subsidy Type		
Public housing	734,284	33.69%
Housing choice vouchers	1,190,533	54.63%
Project-based Section 8	468,145	21.48%
Section 202	25,944	1.19%
Section 202/162	117	0.01%
Section 811	5,009	0.23%
Other	66,403	3.05%
Disability or Handicapped Status		
Yes	434,013	17.43%
No	1,787,476	71.77%
Unknown/declined to report	268,946	10.80%
Geographic Area		
Vermont	29,401	23.08%
New Haven-Milford	60,687	47.64%
Bridgeport-Stamford-Norwalk	42,472	33.34%
Milwaukee-Waukesha-West Allis	65,882	51.71%
San Francisco-Oakland-Fremont	205,888	161.61%
Boston-Cambridge-Quincy	291,571	228.87%
Durham-Chapel Hill	23,779	18.67%
Richmond	57,406	45.06%
New York-Northern New Jersey-Long Island	1,437,415	1128.29%
Columbus	97,511	76.54%
Akron	46,957	36.86%
Cleveland	131,466	103.19%

* Each individual only included once, regardless of appearing in more than one year of data. For those individuals that appeared in multiple years, we defined the demographic variables based on their most recent year variable value. Earlier analyses showed very strong consistency across years (over 99% of individuals had consistent values for a given variable across multiple years). For the small percentage of individuals who were present in all three years, if an individual had a demographic variable the same for two years, but different in a third year, the third year was changed to match the other two.

TABLE D-A8. HUD-Assisted Individual Demographics by Geographic Area												
	Vermont (N=29,401)		New Haven-Milford (N=60,687)		Bridgeport-Stamford-Norwalk (N=42,472)		Milwaukee-Waukesha-West Allis (N=65,882)		San Francisco-Oakland-Fremont (N=205,888)		Boston-Cambridge-Quincy (N=291,571)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age	37.21	26.39	33.13	25.28	34.84	25.68	33.71	25.68	37.402	25.67	37.72	26.08
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	11,592	39.4%	22,279	36.7%	15,536	36.6%	23,492	35.7%	80,607	39.2%	110,775	38.0%
Female	17,803	60.6%	38,376	63.2%	26,917	63.4%	42,368	64.3%	125,171	60.8%	180,582	61.9%
Did not report	*	*	32	0.1%	19	0.0%	22	0.0%	110	0.1%	214	0.1%
Age Group												
<18	9,569	32.5%	23,948	39.5%	15,581	36.7%	26,030	39.5%	66,555	32.3%	94,214	32.3%
18-44	8,501	28.9%	17,893	29.5%	12,503	29.4%	18,054	27.4%	58,969	28.6%	81,864	28.1%
45-61	4,759	16.2%	8,096	13.3%	5,780	13.6%	8,787	13.3%	35,324	17.2%	49,720	17.1%
62-64	747	2.5%	1,235	2.0%	911	2.1%	1,606	2.4%	4,851	2.4%	7,268	2.5%
65+	5,818	19.8%	9,483	15.6%	7,679	18.1%	11,384	17.3%	40,032	19.4%	58,291	20.0%
Unknown/ declined to report	*	*	32	0.1%	18	0.0%	21	0.0%	157	0.1%	214	0.1%
Race/Ethnicity												
White non-Hispanic	20,250	68.9%	8,876	14.6%	4,700	11.1%	8,646	13.1%	29,014	14.1%	83,750	28.7%
Hispanic	330	1.1%	18,293	30.1%	14,609	34.4%	2,928	4.4%	19,964	9.7%	60,605	20.8%
Black non-Hispanic	1,369	4.7%	20,332	33.5%	16,242	38.2%	34,553	52.4%	86,705	42.1%	57,788	19.8%
Asian	284	1.0%	94	0.2%	275	0.6%	192	0.3%	33,136	16.1%	9,873	3.4%
American Indian/Alaskan	89	0.3%	76	0.1%	58	0.1%	148	0.2%	802	0.4%	800	0.3%
Hawaiian/Pacific Islander	*	*	16	0.0%	40	0.1%	17	0.0%	1,737	0.8%	839	0.3%
Other non-Hispanic	*	*	20	0.0%	*	*	*	*	118	0.1%	188	0.1%
Mixed non-Hispanic	18	0.1%	19	0.0%	*	*	53	0.1%	85	0.0%	117	0.0%
Declined to report	7,052	24.0%	12,961	21.4%	6,543	15.4%	19,341	29.4%	34,327	16.7%	77,611	26.6%
Property Type												
Public housing	4,255	14.5%	10,521	17.3%	13,457	31.7%	10,486	15.9%	30,817	15.0%	54,149	18.6%
Housing choice vouchers	16,903	57.5%	33,388	55.0%	20,547	48.4%	30,781	46.7%	130,994	63.6%	140,714	48.3%
Other multifamily	6,937	23.6%	14,777	24.3%	6,310	14.9%	21,468	32.6%	31,277	15.2%	82,915	28.4%
Section 202	911	3.1%	1,288	2.1%	1,509	3.6%	2,636	4.0%	9,097	4.4%	10,292	3.5%
Section 811 & 202/162	94	0.3%	129	0.2%	43	0.1%	214	0.3%	658	0.3%	856	0.3%
Other	301	1.0%	584	1.0%	606	1.4%	297	0.5%	3,045	1.5%	2,645	0.9%

	TABLE D-A8 (*continued*)											
	Vermont (N=29,401)		New Haven-Milford (N=60,687)		Bridgeport-Stamford-Norwalk (N=42,472)		Milwaukee-Waukesha-West Allis (N=65,882)		San Francisco-Oakland-Fremont (N=205,888)		Boston-Cambridge-Quincy (N=291,571)	
	N	%	N	%	N	%	N	%	N	%	N	%
Subsidy Type												
Public housing	4,294	14.6%	10,605	17.5%	13,512	31.8%	10,581	16.1%	30,929	15.0%	54,503	18.7%
Housing choice vouchers	17,080	58.1%	33,828	55.7%	20,663	48.7%	31,205	47.4%	131,676	64.0%	142,075	48.7%
Project-based Section 8	7,358	25.0%	14,879	24.5%	7,111	16.7%	22,644	34.4%	35,467	17.2%	82,960	28.5%
Section 202	269	0.9%	636	1.0%	321	0.8%	923	1.4%	3,511	1.7%	3,397	1.2%
Section 202/162	*	*	*	*	*	*	*	*	14	0.0%	*	*
Section 811	92	0.3%	106	0.2%	43	0.1%	211	0.3%	648	0.3%	868	0.3%
Other	308	1.0%	633	1.0%	822	1.9%	318	0.5%	3,643	1.8%	7,768	2.7%
Disability or Handicapped Status												
Yes	7,553	25.7%	10,254	16.9%	6,248	14.7%	12,637	19.2%	39,806	19.3%	61,259	21.0%
No	18,702	63.6%	42,991	70.8%	34,468	81.2%	42,714	64.8%	151,150	73.4%	187,275	64.2%
Did not report	3,146	10.7%	7,442	12.3%	1,756	4.1%	10,531	16.0%	14,932	7.3%	43,037	14.8%

	Durham-Chapel Hill (N=23,779)		Richmond (N=57,406)		New York-Northern New Jersey-Long Island (N=1,437,415)		Columbus (N=97,511)		Akron (N=46,957)		Cleveland (N=131,466)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age	27.46	22.47	26	22.17	35.74	25.26	27.648	23.41	28.488	23.42	30.52	24.1
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	8,543	35.9%	20,261	35.3%	546,897	38.0%	37,783	38.7%	17,003	36.2%	49,991	38.0%
Female	15,228	64.0%	37,125	64.7%	889,443	61.9%	59,667	61.2%	29,938	63.8%	81,401	61.9%
Did not report	*	*	20	0.0%	1,075	0.1%	61	0.1%	16	0.0%	74	0.1%
Age Group												
<18	11,121	46.8%	28,106	49.0%	490,854	34.1%	45,482	46.6%	20,491	43.6%	56,101	42.7%
18-44	7,136	30.0%	17,555	30.6%	430,788	30.0%	29,226	30.0%	14,711	31.3%	38,074	29.0%
45-61	3,016	12.7%	6,100	10.6%	226,682	15.8%	11,040	11.3%	6,157	13.1%	19,039	14.5%
62-64	438	1.8%	826	1.4%	33,677	2.3%	1,562	1.6%	879	1.9%	2,446	1.9%
65+	2,060	8.7%	4,799	8.4%	254,570	17.7%	10,143	10.4%	4,709	10.0%	15,761	12.0%
Unknown/ declined to report	*	*	20	0.0%	844	0.1%	58	0.1%	*	*	45	0.0%
Race/Ethnicity												
White non-Hispanic	1,902	8.0%	2,619	4.6%	198,082	13.8%	20,861	21.4%	16,144	34.4%	16,899	12.9%
Hispanic	427	1.8%	592	1.0%	463,157	32.2%	819	0.8%	470	1.0%	8,613	6.6%
Black non-Hispanic	18,497	77.8%	39,650	69.1%	527,087	36.7%	50,942	52.2%	19,964	42.5%	80,012	60.9%
Asian	50	0.2%	134	0.2%	25,049	1.7%	174	0.2%	191	0.4%	170	0.1%

	TABLE D-A8 (*continued*)										
	Durham-Chapel Hill (N=23,779)		Richmond (N=57,406)		New York-Northern New Jersey-Long Island (N=1,437,415)		Columbus (N=97,511)		Akron (N=46,957)		Cleveland (N=131,466)	
	N	%	N	%	N	%	N	%	N	%	N	%
American Indian/Alaskan	36	0.2%	75	0.1%	2,120	0.1%	103	0.1%	41	0.1%	197	0.1%
Hawaiian/Pacific Islander	*	*	12	0.0%	868	0.1%	71	0.1%	15	0.0%	33	0.0%
Other non-Hispanic	*	*	51	0.1%	301	0.0%	193	0.2%	24	0.1%	33	0.0%
Mixed non-Hispanic	12	0.1%	15	0.0%	201	0.0%	93	0.1%	40	0.1%	87	0.1%
Declined to report	2,842	12.0%	14,258	24.8%	220,550	15.3%	24,255	24.9%	10,068	21.4%	25,422	19.3%
Property Type												
Public housing	7,913	33.3%	15,913	27.7%	528,717	36.8%	11,800	12.1%	12,598	26.8%	30,311	23.1%
Housing choice vouchers	12,017	50.5%	21,472	37.4%	636,807	44.3%	50,886	52.2%	19,681	41.9%	65,826	50.1%
Other multifamily	3,327	14.0%	18,156	31.6%	223,274	15.5%	28,718	29.5%	12,534	26.7%	29,630	22.5%
Section 202	406	1.7%	1,498	2.6%	37,607	2.6%	4,813	4.9%	1,067	2.3%	4,564	3.5%
Section 811 & 202/162	116	0.5%	149	0.3%	1,920	0.1%	509	0.5%	172	0.4%	336	0.3%
Other	*	*	218	0.4%	9,090	0.6%	785	0.8%	905	1.9%	799	0.6%
Subsidy Type												
Public housing	7,992	33.6%	16,281	28.4%	529,788	36.9%	12,107	12.4%	12,779	27.2%	30,913	23.5%
Housing choice vouchers	12,126	51.0%	22,083	38.5%	640,846	44.6%	52,137	53.5%	20,073	42.7%	66,741	50.8%
Project-Based Section 8	3,398	14.3%	17,038	29.7%	204,177	14.2%	29,589	30.3%	12,803	27.3%	30,721	23.4%
Section 202	160	0.7%	347	0.6%	12,829	0.9%	1,937	2.0%	206	0.4%	1,408	1.1%
Section 202/162	23	0.1%	*	*	*	*	77	0.1%	*	*	*	*
Section 811	80	0.3%	146	0.3%	1,858	0.1%	474	0.5%	162	0.3%	321	0.2%
Other	*	*	1,511	2.6%	47,914	3.3%	1,190	1.2%	934	2.0%	1,362	1.0%
Disability or Handicapped Status												
Yes	4,068	17.1%	8,189	14.3%	237,718	16.5%	14,755	15.1%	8,031	17.1%	23,495	17.9%
No	17,528	73.7%	36,820	64.1%	1,070,416	74.5%	62,017	63.6%	30,993	66.0%	92,402	70.3%
Did not report	2,183	9.2%	12,397	21.6%	129,281	9.0%	20,739	21.3%	7,933	16.9%	15,569	11.8%
* Cell sizes of less than 11 are not displayed.												

TABLE D-A9. Demographics by Age Group						
	<62 (N=2,007,826)		62 to 64 (N=56,446)		65+ (N=424,729)	
	N	%	N	%	N	%
Gender						
Male	797,183	39.7%	17,920	31.7%	129,638	30.5%
Female	1,210,538	60.3%	38,518	68.2%	294,923	69.4%
Declined to report	105	0.0%	*	*	168	0.0%
Race/Ethnicity						
White non-Hispanic	306,965	15.3%	12,414	22.0%	92,360	21.7%
Hispanic	508,701	25.3%	13,969	24.7%	68,135	16.0%
Black non-Hispanic	863,137	43.0%	15,522	27.5%	74,458	17.5%
Asian	50,268	2.5%	2,372	4.2%	16,955	4.0%
American Indian/Alaskan	3,801	0.2%	118	0.2%	625	0.1%
Hawaiian/Pacific Islander	3,031	0.2%	87	0.2%	539	0.1%
Other non-Hispanic	785	0.0%	30	0.1%	134	0.0%
Mixed non-Hispanic	539	0.0%	13	0.0%	189	0.0%
Declined to report	270,599	13.5%	11,921	21.1%	171,334	40.3%
Property Type						
Public housing	586,559	29.2%	19,823	35.1%	124,501	29.3%
Housing choice vouchers	1,055,771	52.6%	20,122	35.6%	104,122	24.5%
Other multifamily	337,120	16.8%	13,105	23.2%	127,990	30.1%
Section 202	7,390	0.4%	2,340	4.1%	65,691	15.5%
Section 811 & 202/162	4,473	0.2%	262	0.5%	458	0.1%
Other	16,513	0.8%	794	1.4%	1,967	0.5%
Subsidy Type						
Public housing	589,454	29.4%	19,873	35.2%	124,903	29.4%
Housing choice vouchers	1,065,294	53.1%	20,283	35.9%	104,955	24.7%
Project-Based Section 8	296,952	14.8%	13,381	23.7%	156,507	36.8%
Section 202	451	0.0%	646	1.1%	24,818	5.8%
Section 202/162	45	0.0%	*	*	65	0.0%
Section 811	4,310	0.2%	246	0.4%	452	0.1%
Other	51,320	2.6%	2,010	3.6%	13,029	3.1%
Disability or Handicapped Status						
Yes	275,558	13.7%	30,789	54.5%	127,650	30.1%
No	1,468,802	73.2%	22,769	40.3%	295,864	69.7%
Unknown/Declined to report	263,466	13.1%	2,888	5.1%	1,215	0.3%
* Cell sizes of less than 11 are not displayed.						

TABLE D-A10. Demographics by Property Type

	Public Housing (N=730,937)		Housing Choice Vouchers (N=1,180,016)		Other Multifamily (N=479,323)		Section 202 (N=75,688)		Section 811 & Section 202/162 (N=5,196)		Other (N=19,275)	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	282,289	38.6%	452,071	38.3%	173,587	36.2%	23,871	31.5%	5,196	68.4%	10,149	52.7%
Female	448,647	61.4%	727,944	61.7%	304,475	63.5%	51,431	68.0%	2,398	31.6%	9,124	47.3%
Declined to report	*	*	*	*	1,261	0.3%	386	0.5%	*	*	*	*
Race/Ethnicity												
White non-Hispanic	80,796	11.1%	300,961	25.5%	20,250	4.2%	4,994	6.6%	685	13.2%	4,057	21.0%
Hispanic	251,646	34.4%	309,340	26.2%	22,919	4.8%	1,758	2.3%	81	1.6%	5,063	26.3%
Black non-Hispanic	366,456	50.1%	525,948	44.6%	49,474	10.3%	2,447	3.2%	366	7.0%	8,450	43.8%
Asian	28,478	3.9%	35,736	3.0%	3,609	0.8%	1,433	1.9%	27	0.5%	339	1.8%
American Indian/Alaskan	1,454	0.2%	2,531	0.2%	450	0.1%	47	0.1%	*	*	57	0.3%
Hawaiian/Pacific Islander	1,109	0.2%	2,297	0.2%	160	0.0%	26	0.0%	*	*	65	0.3%
Other non-Hispanic	*	*	*	*	857	0.2%	64	0.1%	*	*	22	0.1%
Mixed non-Hispanic	*	*	*	*	640	0.1%	86	0.1%	11	0.2%	*	*
Declined to report	998	0.1%	3,203	0.3%	380,964	79.5%	64,833	85.7%	4,014	77.3%	1,218	6.3%
Age Group												
<18	237,841	32.5%	501,217	42.5%	144,399	30.1%	188	0.2%	251	4.8%	4,156	21.6%
18-44	223,889	30.6%	375,696	31.8%	126,248	26.3%	1,980	2.6%	1,805	34.7%	5,656	29.3%
45-61	124,829	17.1%	178,858	15.2%	66,473	13.9%	5,222	6.9%	2,417	46.5%	6,701	34.8%
62-64	19,823	2.7%	20,122	1.7%	13,105	2.7%	2,340	3.1%	262	5.0%	794	4.1%
65+	124,501	17.0%	104,122	8.8%	127,990	26.7%	65,691	86.8%	458	8.8%	1,967	10.2%
Unknown/declined to report	54	0.0%	*	*	1,108	0.2%	267	0.4%	*	*	*	*
Disability or Handicapped Status												
Yes	147,074	20.1%	199,861	16.9%	64,603	13.5%	10,849	14.3%	4,657	89.6%	6,969	36.2%
No	583,863	79.9%	980,155	83.1%	149,627	31.2%	62,964	83.2%	193	3.7%	10,674	55.4%
Unknown/declined to report	*	*	*	*	265,093	55.3%	1,875	2.5%	346	6.7%	1,632	8.5%

* Cell sizes of less than 11 are not displayed.

	TABLE D-A11. Demographics by Subsidy Type											
	Public Housing (N=734,284)		Housing Choice Vouchers (N=1,190,533)		Other Multifamily (N=468,144)		Section 202 (N=25,945)		Section 811 & Section 202/162 (N=5,126)		Other (N=66,403)	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	283,455	38.6%	455,776	38.3%	166,846	35.6%	7,949	30.6%	2,742	53.5%	27,991	42.2%
Female	450,828	61.4%	734,756	61.7%	299,746	64.0%	17,956	69.2%	2,380	46.4%	38,353	57.8%
Declined to report	*	*	*	*	1,553	0.3%	39	0.2%	*	*	59	0.1%
Race/Ethnicity												
White non-Hispanic	81,194	11.1%	302,621	25.4%	19,605	4.2%	1,737	6.7%	609	11.9%	5,977	9.0%
Hispanic	252,354	34.4%	311,721	26.2%	18,310	3.9%	704	2.7%	84	1.6%	7,634	11.5%
Black non-Hispanic	368,619	50.2%	532,262	44.7%	36,497	7.8%	909	3.5%	336	6.6%	14,518	21.9%
Asian	28,546	3.9%	35,831	3.0%	3,893	0.8%	624	2.4%	21	0.4%	707	1.1%
American Indian/Alaskan	1,459	0.2%	2,548	0.2%	397	0.1%	34	0.1%	*	*	103	0.2%
Hawaiian/Pacific Islander	1,110	0.2%	2,317	0.2%	144	0.0%	11	0.0%	*	*	75	0.1%
Other non-Hispanic	*	*	*	*	801	0.2%	33	0.1%	*	*	109	0.2%
Mixed non-Hispanic	*	*	*	*	648	0.1%	29	0.1%	11	0.2%	53	0.1%
Declined to report	1,002	0.1%	3,233	0.3%	387,850	82.8%	21,863	84.3%	4,055	79.1%	37,227	56.1%
Age Group												
<18	239,358	32.6%	506,212	42.5%	124,460	26.6%	*	*	251	4.9%	17,763	26.8%
18-44	224,973	30.6%	379,167	31.8%	109,573	23.4%	54	0.2%	1,756	34.3%	19,751	29.7%
45-61	125,123	17.0%	179,915	15.1%	62,919	13.4%	389	1.5%	2,348	45.8%	13,806	20.8%
62-64	19,873	2.7%	20,283	1.7%	13,381	2.9%	646	2.5%	253	4.9%	2,010	3.0%
65+	124,903	17.0%	104,955	8.8%	156,507	33.4%	24,818	95.7%	517	10.1%	13,029	19.6%
Unknown/declined to report	54	0.0%	*	*	1,305	0.3%	29	0.1%	*	*	44	0.1%
Disability or Handicapped Status												
Yes	147,616	20.1%	201,397	16.9%	68,938	14.7%	1,214	4.7%	4,541	88.6%	10,307	15.5%
No	586,668	79.9%	989,136	83.1%	162,366	34.7%	24,260	93.5%	228	4.4%	24,818	37.4%
Unknown/declined to report	*	*	*	*	236,841	50.6%	470	1.8%	357	7.0%	31,278	47.1%
* Cell sizes of less than 11 are not displayed.												

TABLE D-A12. Number and Proportion of TRACS Properties by Proportion of Households with at Least One Individual Age 62+								
Proportion of Households with at Least One Individual Age 62+	Number of Properties 2007	Percent of Properties 2007	Number of Properties 2008	Percent of Properties 2008	Number of Properties 2009	Percent of Properties 2009	Number of Properties 2007-2009	Percent of Properties 2007-2009
0-9%	763	625.4%	706	727.8%	663	861.0%	802	524.2%
10-19%	372	304.9%	375	386.6%	372	483.1%	378	247.1%
20-29%	362	296.7%	372	383.5%	374	485.7%	380	248.4%
30-39%	226	185.2%	221	227.8%	250	324.7%	253	165.4%
40-49%	130	106.6%	140	144.3%	137	177.9%	140	91.5%
50-59%	108	88.5%	115	118.6%	137	177.9%	141	92.2%
60-69%	101	82.8%	103	106.2%	99	128.6%	99	64.7%
70-79%	137	112.3%	144	148.5%	139	180.5%	140	91.5%
80-89%	262	214.8%	236	243.3%	238	309.1%	239	156.2%
90-100%	1,213	994.3%	1,213	1250.5%	1,209	1570.1%	1,390	908.5%
Elderly (Age 62+) Properties								
Properties with 50%+ Households designated as Elderly	1,821	49.6%	1,811	50.0%	1,822	50.4%	2009	50.7%
Properties with under 50% Households designated as Elderly	1,853	50.4%	1,814	50.0%	1,796	49.6%	1953	49.3%

Proportion of Households with at Least One Individual Age 62+	Vermont		New Haven-Milford		Bridgeport-Stamford-Norwalk		Milwaukee-Waukesha-West Allis		San Francisco-Oakland-Fremont		Boston-Cambridge-Quincy	
	N	%	N	%	N	%	N	%	N	%	N	%
Proportion of Households with at Least One Individual Age 62+ (2007)												
0-9%	43	26.9%	20	16.7%	6	7.4%	44	22.1%	64	17.6%	94	14.6%
10-19%	10	6.3%	12	10.0%	7	8.6%	14	7.0%	31	8.5%	93	14.5%
20-29%	10	6.3%	11	9.2%	4	4.9%	13	6.5%	22	6.0%	65	10.1%
30-39%	5	3.1%	3	2.5%	5	6.2%	6	3.0%	22	6.0%	38	5.9%
40-49%	5	3.1%	4	3.3%	2	2.5%	9	4.5%	8	2.2%	21	3.3%
50-59%	3	1.9%	3	2.5%	3	3.7%	11	5.5%	8	2.2%	27	4.2%
60-69%	7	4.4%	3	2.5%	5	6.2%	21	10.6%	4	1.1%	24	3.7%
70-79%	15	9.4%	7	5.8%	8	9.9%	18	9.0%	3	0.8%	32	5.0%
80-89%	28	17.5%	11	9.2%	7	8.6%	19	9.5%	17	4.7%	75	11.7%
90-100%	34	21.3%	46	38.3%	34	42.0%	44	22.1%	185	50.8%	174	27.1%
Proportion of Households with at Least One Individual Age 62+ (2008)												
0-9%	38	23.8%	20	17.1%	6	7.2%	40	20.7%	49	13.6%	91	14.3%
10-19%	13	8.1%	14	12.0%	9	10.8%	14	7.3%	35	9.7%	88	13.8%
20-29%	13	8.1%	9	7.7%	4	4.8%	13	6.7%	26	7.2%	73	11.4%
30-39%	2	1.3%	4	3.4%	2	2.4%	7	3.6%	20	5.6%	34	5.3%
40-49%	8	5.0%	4	3.4%	4	4.8%	8	4.1%	9	2.5%	26	4.1%
50-59%	4	2.5%	3	2.6%	3	3.6%	14	7.3%	10	2.8%	25	3.9%
60-69%	11	6.9%	3	2.6%	5	6.0%	15	7.8%	4	1.1%	20	3.1%
70-79%	12	7.5%	9	7.7%	7	8.4%	22	11.4%	3	0.8%	39	6.1%
80-89%	23	14.4%	10	8.5%	10	12.0%	15	7.8%	14	3.9%	66	10.3%
90-100%	36	22.5%	41	35.0%	33	39.8%	45	23.3%	189	52.6%	176	27.6%
Proportion of Households with at Least One Individual Age 62+ (2009)												
0-9%	33	21.2%	22	19.1%	6	7.3%	40	20.1%	41	11.7%	84	13.1%
10-19%	12	7.7%	8	7.0%	7	8.5%	15	7.5%	29	8.3%	94	14.7%
20-29%	12	7.7%	12	10.4%	4	4.9%	13	6.5%	29	8.3%	73	11.4%
30-39%	7	4.5%	5	4.3%	3	3.7%	7	3.5%	24	6.8%	36	5.6%
40-49%	4	2.6%	3	2.6%	6	7.3%	9	4.5%	7	2.0%	20	3.1%
50-59%	5	3.2%	4	3.5%	3	3.7%	14	7.0%	13	3.7%	33	5.2%
60-69%	10	6.4%	3	2.6%	6	7.3%	13	6.5%	3	0.9%	15	2.3%
70-79%	12	7.7%	7	6.1%	3	3.7%	23	11.6%	6	1.7%	44	6.9%
80-89%	26	16.7%	11	9.6%	12	14.6%	14	7.0%	13	3.7%	64	10.0%
90-100%	35	22.4%	40	34.8%	32	39.0%	51	25.6%	186	53.0%	177	27.7%

TABLE D-A13. Number and Proportion of TRACS Properties by Proportion of Households with at Least One Individual Age 62+ by Geographic Location

Proportion of Households with at Least One Individual Age 62+	Vermont		New Haven-Milford		Bridgeport-Stamford-Norwalk		Milwaukee-Waukesha-West Allis		San Francisco-Oakland-Fremont		Boston-Cambridge-Quincy	
	N	%	N	%	N	%	N	%	N	%	N	%
Proportion of Households with at Least One Individual Age 62+ (2007-2009)												
0-9%	39	23.6%	24	18.6%	7	8.2%	45	21.0%	54	13.9%	96	14.3%
10-19%	12	7.3%	8	6.2%	7	8.2%	16	7.5%	29	7.5%	95	14.2%
20-29%	12	7.3%	12	9.3%	4	4.7%	13	6.1%	30	7.7%	73	10.9%
30-39%	7	4.2%	5	3.9%	3	3.5%	7	3.3%	24	6.2%	36	5.4%
40-49%	4	2.4%	3	2.3%	6	7.1%	9	4.2%	7	1.8%	20	3.0%
50-59%	5	3.0%	5	3.9%	3	3.5%	14	6.5%	13	3.3%	33	4.9%
60-69%	10	6.1%	3	2.3%	6	7.1%	13	6.1%	3	0.8%	15	2.2%
70-79%	12	7.3%	7	5.4%	3	3.5%	23	10.7%	6	1.5%	44	6.6%
80-89%	26	15.8%	11	8.5%	12	14.1%	14	6.5%	13	3.3%	65	9.7%
90-100%	38	23.0%	51	39.5%	34	40.0%	60	28.0%	210	54.0%	193	28.8%
Elderly (Age 62+) Properties												
Properties with 50%+ Households designated as Elderly	91	55.2%	77	59.7%	58	68.2%	124	57.9%	245	63.0%	350	52.2%
Properties with under 50% Households designated as Elderly	74	44.8%	52	40.3%	27	31.8%	90	42.1%	144	37.0%	320	47.8%

Proportion of Households with at Least One Individual Age 62+	Durham-Chapel Hill		Richmond		New York-Northern New Jersey-Long Island		Columbus		Akron		Cleveland	
	N	%	N	%	N	%	N	%	N	%	N	%
Proportion of Households with at Least One Individual Age 62+ (2007)												
0-9%	30	55.6%	44	49.4%	261	17.8%	67	31.5%	29	40.8%	61	29.0%
10-19%	7	13.0%	8	9.0%	142	9.7%	22	10.3%	5	7.0%	21	10.0%
20-29%	2	3.7%	5	5.6%	208	14.1%	12	5.6%	4	5.6%	6	2.9%
30-39%	2	3.7%	4	4.5%	128	8.7%	6	2.8%	3	4.2%	4	1.9%
40-49%	0	0.0%	0	0.0%	66	4.5%	4	1.9%	2	2.8%	9	4.3%
50-59%	0	0.0%	1	1.1%	42	2.9%	6	2.8%	1	1.4%	3	1.4%
60-69%	0	0.0%	2	2.2%	17	1.2%	3	1.4%	5	7.0%	10	4.8%
70-79%	2	3.7%	5	5.6%	23	1.6%	11	5.2%	3	4.2%	10	4.8%
80-89%	4	7.4%	4	4.5%	68	4.6%	10	4.7%	9	12.7%	10	4.8%
90-100%	7	13.0%	16	18.0%	515	35.0%	72	33.8%	10	14.1%	76	36.2%

Proportion of Households with at Least One Individual Age 62+	Durham-Chapel Hill		Richmond		New York-Northern New Jersey-Long Island		Columbus		Akron		Cleveland	
	N	%	N	%	N	%	N	%	N	%	N	%
Proportion of Households with at Least One Individual Age 62+ (2008)												
0-9%	29	55.8%	46	50.0%	232	16.1%	69	32.1%	29	39.2%	57	27.8%
10-19%	5	9.6%	7	7.6%	137	9.5%	28	13.0%	4	5.4%	21	10.2%
20-29%	2	3.8%	4	4.3%	204	14.2%	11	5.1%	4	5.4%	9	4.4%
30-39%	0	0.0%	3	3.3%	134	9.3%	7	3.3%	5	6.8%	3	1.5%
40-49%	0	0.0%	1	1.1%	67	4.7%	4	1.9%	2	2.7%	7	3.4%
50-59%	2	3.8%	1	1.1%	44	3.1%	5	2.3%	0	0.0%	4	2.0%
60-69%	0	0.0%	2	2.2%	24	1.7%	4	1.9%	6	8.1%	9	4.4%
70-79%	3	5.8%	6	6.5%	24	1.7%	8	3.7%	3	4.1%	8	3.9%
80-89%	2	3.8%	2	2.2%	59	4.1%	10	4.7%	10	13.5%	15	7.3%
90-100%	9	17.3%	20	21.7%	512	35.6%	69	32.1%	11	14.9%	72	35.1%
Proportion of Households with at Least One Individual Age 62+ (2009)												
0-9%	28	50.9%	40	44.0%	214	14.9%	70	32.1%	31	42.5%	54	27.0%
10-19%	7	12.7%	12	13.2%	134	9.3%	29	13.3%	4	5.5%	21	10.5%
20-29%	3	5.5%	7	7.7%	199	13.8%	11	5.0%	3	4.1%	8	4.0%
30-39%	0	0.0%	1	1.1%	144	10.0%	10	4.6%	6	8.2%	7	3.5%
40-49%	1	1.8%	1	1.1%	79	5.5%	3	1.4%	1	1.4%	3	1.5%
50-59%	1	1.8%	1	1.1%	47	3.3%	5	2.3%	3	4.1%	8	4.0%
60-69%	0	0.0%	4	4.4%	25	1.7%	9	4.1%	3	4.1%	8	4.0%
70-79%	3	5.5%	4	4.4%	17	1.2%	3	1.4%	7	9.6%	10	5.0%
80-89%	3	5.5%	6	6.6%	62	4.3%	9	4.1%	7	9.6%	11	5.5%
90-100%	9	16.4%	15	16.5%	517	36.0%	69	31.7%	8	11.0%	70	35.0%
Proportion of Households with at Least One Individual Age 62+ (2007-2009)												
0-9%	31	51.7%	45	44.6%	283	17.8%	80	32.8%	32	40.0%	66	28.6%
10-19%	7	11.7%	12	11.9%	138	8.7%	29	11.9%	4	5.0%	21	9.1%
20-29%	3	5.0%	7	6.9%	203	12.7%	12	4.9%	3	3.8%	8	3.5%
30-39%	0	0.0%	2	2.0%	146	9.2%	10	4.1%	6	7.5%	7	3.0%
40-49%	1	1.7%	1	1.0%	82	5.1%	3	1.2%	1	1.3%	3	1.3%
50-59%	1	1.7%	1	1.0%	50	3.1%	5	2.0%	3	3.8%	8	3.5%
60-69%	0	0.0%	4	4.0%	25	1.6%	9	3.7%	3	3.8%	8	3.5%
70-79%	3	5.0%	4	4.0%	18	1.1%	3	1.2%	7	8.8%	10	4.3%
80-89%	3	5.0%	6	5.9%	62	3.9%	9	3.7%	7	8.8%	11	4.8%
90-100%	11	18.3%	19	18.8%	587	36.8%	84	34.4%	14	17.5%	89	38.5%
Elderly (Age 62+) Properties												
Properties with 50%+ Households designated as Elderly	18	30.0%	34	33.7%	742	46.5%	110	45.1%	34	42.5%	126	54.5%
Properties with under 50% Households designated as Elderly	42	70.0%	67	66.3%	852	53.5%	134	54.9%	46	57.5%	105	45.5%

NOTE: N represents the number of properties with X% of households with at least one individual age 62+.

TABLE D-A14. Number and Proportion of PIC Properties by Proportion of Households with at Least One Individual Age 62+						
Proportion of Households with at Least One Individual Age 62+ or In a Property Designated as Elderly	Number of Properties 2007	Percent of Properties 2007	Number of Properties 2008	Percent of Properties 2008	Number of Properties 2009	Percent of Properties 2009
0-9%	228	15.8%	91	11.4%	101	12.1%
10-19%	221	15.3%	110	13.8%	119	14.3%
20-29%	191	13.2%	104	13.0%	116	13.9%
30-39%	152	10.5%	99	12.4%	93	11.2%
40-49%	89	6.2%	58	7.3%	53	6.4%
50-59%	48	3.3%	44	5.5%	43	5.2%
60-69%	25	1.7%	20	2.5%	20	2.4%
70-79%	17	1.2%	23	2.9%	23	2.8%
80-89%	14	1.0%	14	1.8%	13	1.6%
90-100%	462	31.9%	234	29.4%	253	30.3%
Elderly (Age 62+) Properties						
Properties with 50%+ Households designated as Elderly or a Property Designated as Elderly	566	39.1%	335	42.0%	352	42.2%
Properties with under 50% Households designated as Elderly and no Elderly Property Designation	881	60.9%	462	58.0%	482	57.8%

TABLE D-A15. Number and Proportion of PIC Properties by Proportion of Households with at Least One Individual Age 62+ or Designated Elderly by Geographic Location													
	Vermont		New Haven-Milford		Bridgeport-Stamford-Norwalk		Milwaukee-Waukesha-West Allis		San Francisco-Oakland-Fremont		Boston-Cambridge-Quincy	
	N	%	N	%	N	%	N	%	N	%	N	%
Proportion of Households with at Least One Individual Age 62+ (2007)												
0-9%	7	26.9%	19	26.0%	19	24.7%	16	34.8%	23	15.0%	18	9.4%
10-19%	3	11.5%	14	19.2%	18	23.4%	8	17.4%	43	28.1%	24	12.5%
20-29%	0	0.0%	7	9.6%	12	15.6%	4	8.7%	24	15.7%	26	13.5%
30-39%	0	0.0%	0	0.0%	1	1.3%	1	2.2%	13	8.5%	7	3.6%
40-49%	0	0.0%	1	1.4%	2	2.6%	0	0.0%	4	2.6%	7	3.6%
50-59%	0	0.0%	0	0.0%	2	2.6%	0	0.0%	4	2.6%	1	0.5%
60-69%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	2.0%	1	0.5%
70-79%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.3%	1	0.5%
80-89%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.3%	1	0.5%
90-100%	16	61.5%	32	43.8%	23	29.9%	17	37.0%	35	22.9%	106	55.2%
Proportion of Households with at Least One Individual Age 62+ (2008)												
0-9%	1	9.1%	5	27.8%	4	12.9%	8	29.6%	4	6.5%	10	7.0%
10-19%	0	0.0%	1	5.6%	9	29.0%	3	11.1%	23	37.1%	12	8.4%
20-29%	0	0.0%	1	5.6%	5	16.1%	0	0.0%	11	17.7%	23	16.1%
30-39%	0	0.0%	1	5.6%	2	6.5%	0	0.0%	1	1.6%	6	4.2%
40-49%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	3.2%	3	2.1%
50-59%	3	27.3%	1	5.6%	1	3.2%	0	0.0%	2	3.2%	3	2.1%
60-69%	1	9.1%	0	0.0%	0	0.0%	0	0.0%	3	4.8%	2	1.4%
70-79%	1	9.1%	0	0.0%	0	0.0%	0	0.0%	2	3.2%	6	4.2%
80-89%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	3.2%	3	2.1%
90-100%	5	45.5%	9	50.0%	10	32.3%	16	59.3%	12	19.4%	75	52.4%
Proportion of Households with at Least One Individual Age 62+ (2009)												
0-9%	1	9.1%	10	21.7%	6	19.4%	7	25.0%	6	8.0%	8	5.7%
10-19%	0	0.0%	7	15.2%	7	22.6%	5	17.9%	23	30.7%	16	11.3%
20-29%	0	0.0%	4	8.7%	5	16.1%	0	0.0%	12	16.0%	20	14.2%
30-39%	0	0.0%	1	2.2%	1	3.2%	0	0.0%	1	1.3%	5	3.5%
40-49%	0	0.0%	1	2.2%	1	3.2%	0	0.0%	3	4.0%	2	1.4%
50-59%	3	27.3%	1	2.2%	1	3.2%	0	0.0%	3	4.0%	4	2.8%
60-69%	2	18.2%	0	0.0%	0	0.0%	0	0.0%	3	4.0%	2	1.4%
70-79%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	4.0%	5	3.5%
80-89%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.3%	4	2.8%
90-100%	5	45.5%	22	47.8%	10	32.3%	16	57.1%	20	26.7%	75	53.2%
Elderly (Age 62+) Properties												
Properties with 50%+ Households Designated as Elderly	10	90.9%	10	55.6%	11	35.5%	16	59.3%	21	33.9%	89	62.2%
Properties with under 50% Households Designated as Elderly	1	9.1%	8	44.4%	20	64.5%	11	40.7%	41	66.1%	54	37.8%

	Durham-Chapel Hill		Richmond		New York-Northern New Jersey-Long Island		Columbus		Akron		Cleveland	
	N	%	N	%	N	%	N	%	N	%	N	%
Proportion of Households with at Least One Individual Age 62+ (2007)												
0-9%	13	44.8%	10	29.4%	26	4.0%	20	54.1%	17	43.6%	40	44.0%
10-19%	4	13.8%	11	32.4%	69	10.6%	6	16.2%	8	20.5%	13	14.3%
20-29%	4	13.8%	3	8.8%	105	16.2%	2	5.4%	0	0.0%	4	4.4%
30-39%	2	6.9%	0	0.0%	117	18.0%	0	0.0%	2	5.1%	9	9.9%
40-49%	1	3.4%	1	2.9%	71	10.9%	0	0.0%	0	0.0%	2	2.2%
50-59%	0	0.0%	3	8.8%	28	4.3%	0	0.0%	8	20.5%	2	2.2%
60-69%	0	0.0%	1	2.9%	18	2.8%	0	0.0%	2	5.1%	0	0.0%
70-79%	0	0.0%	0	0.0%	9	1.4%	2	5.4%	1	2.6%	2	2.2%
80-89%	0	0.0%	3	8.8%	6	0.9%	0	0.0%	1	2.6%	1	1.1%
90-100%	5	17.2%	2	5.9%	201	30.9%	7	18.9%	0	0.0%	18	19.8%
Proportion of Households with at Least One Individual Age 62+ (2008)												
0-9%	8	42.1%	6	35.3%	11	2.8%	13	43.3%	13	48.1%	8	30.8%
10-19%	4	21.1%	5	29.4%	41	10.6%	7	23.3%	2	7.4%	3	11.5%
20-29%	1	5.3%	1	5.9%	58	15.0%	1	3.3%	1	3.7%	2	7.7%
30-39%	2	10.5%	0	0.0%	78	20.2%	0	0.0%	1	3.7%	8	30.8%
40-49%	0	0.0%	0	0.0%	52	13.5%	0	0.0%	1	3.7%	0	0.0%
50-59%	0	0.0%	1	5.9%	24	6.2%	0	0.0%	7	25.9%	2	7.7%
60-69%	0	0.0%	0	0.0%	12	3.1%	1	3.3%	1	3.7%	0	0.0%
70-79%	0	0.0%	0	0.0%	11	2.8%	0	0.0%	1	3.7%	2	7.7%
80-89%	0	0.0%	3	17.6%	6	1.6%	0	0.0%	0	0.0%	0	0.0%
90-100%	4	21.1%	1	5.9%	93	24.1%	8	26.7%	0	0.0%	1	3.8%
Proportion of Households with at Least One Individual Age 62+ (2009)												
0-9%	9	45.0%	7	38.9%	12	3.1%	13	44.8%	13	46.4%	9	34.6%
10-19%	4	20.0%	5	27.8%	39	10.2%	7	24.1%	4	14.3%	2	7.7%
20-29%	1	5.0%	1	5.6%	68	17.8%	1	3.4%	1	3.6%	3	11.5%
30-39%	2	10.0%	0	0.0%	75	19.7%	0	0.0%	1	3.6%	7	26.9%
40-49%	0	0.0%	1	5.6%	44	11.5%	0	0.0%	1	3.6%	0	0.0%
50-59%	0	0.0%	0	0.0%	23	6.0%	0	0.0%	6	21.4%	2	7.7%
60-69%	0	0.0%	0	0.0%	11	2.9%	1	3.4%	1	3.6%	0	0.0%
70-79%	0	0.0%	0	0.0%	12	3.1%	0	0.0%	1	3.6%	2	7.7%
80-89%	0	0.0%	3	16.7%	5	1.3%	0	0.0%	0	0.0%	0	0.0%
90-100%	4	20.0%	1	5.6%	92	24.1%	7	24.1%	0	0.0%	1	3.8%
Elderly (Age 62+) Properties												
Properties with 50%+ Households Designated as Elderly	4	21.1%	5	29.4%	146	37.8%	9	30.0%	9	33.3%	5	19.2%
Properties with under 50% Households Designated as Elderly	15	78.9%	12	70.6%	240	62.2%	21	70.0%	18	66.7%	21	80.8%

NOTE: N represents the number of properties with X% of households with at least one individual age 62+.

Objective B: Calculate Number of HUD-Assisted Individual Medicare and/or Medicaid Match Rate in the 12 Study Jurisdictions, 2008

TABLE D-B1. Medicare and Medicaid SSN and Restrictive Match Rates for HUD-Assisted Individuals, 2008, by Age Group				
2008 HUD-Assisted Individuals	**Age <65 Years (N=1,663,348)**		**Age 65+ Years (N=349,208)**	
	N	**%**	**N**	**%**
Medicare				
SSN Mate Rate (SSN only)	116,803	7.0%	325,589	93.2%
Restrictive Match Rate (SSN, gender, date of birth)	110,395	6.7%	297,227	85.1%
Medicaid				
SSN Mate Rate (SSN only)	1,200,981	72.2%	229,093	65.6%
Restrictive Match Rate (SSN, gender, date of birth)	1,131,137	68.5%	209,679	60.0%
Medicare & Medicaid				
SSN Mate Rate (SSN only)	96,509	5.8%	220,139	63.0%
Restrictive Match Rate (SSN, gender, date of birth)	91,564	5.5%	201,753	57.8%

TABLE D-B2. Medicare and Medicaid SSN and Restrictive Match Rates for HUD-Assisted Household Heads Receiving SSI, 2008				
2008 HUD-Assisted Household Heads with SSI	**Age <65 Years (N=158,323)**		**Age 65+ Years (N=131,335)**	
	N	**%**	**N**	**%**
Medicare				
SSN Mate Rate (SSN only)	49,367	31.2%	123,759	94.2%
Restrictive Match Rate (SSN, gender, date of birth)	46,875	29.6%	112,783	85.9%
Medicaid				
SSN Mate Rate (SSN only)	143,443	90.6%	124,730	95.0%
Restrictive Match Rate (SSN, gender, date of birth)	134,320	84.8%	113,711	86.6%
Medicare & Medicaid				
SSN Mate Rate (SSN only)	46,717	29.5%	120,811	92.0%
Restrictive Match Rate (SSN, gender, date of birth)	44,389	28.0%	110,254	83.9%

TABLE D-B3. Restrictive Match Rate: All Ages								
	HUD (any year) (N=2,449,591)		HUD 2007 (N=1,945,719)		HUD 2008 (N=2,025,126)		HUD 2009 (N=2,041,413)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	1,793,283	73.2%	1,444,006	74.2%	1,526,087	75.4%	1,537,949	75.3%
Any Medicare enrollment (07, 08, or 09)	485,550	19.8%	419,101	21.5%	426,239	21.0%	420,061	20.6%
Medicare 2007 enrollment	445,329	18.2%	389,008	20.0%	391,974	19.4%	382,873	18.8%
Medicare 2008 enrollment	453,052	18.5%	391,783	20.1%	407,622	20.1%	401,443	19.7%
Medicare 2009 enrollment	455,569	18.6%	389,881	20.0%	410,851	20.3%	417,416	20.4%
Any Medicaid enrollment (07 or 08)	1,661,584	67.8%	1,333,809	68.6%	1,412,234	69.7%	1,423,395	69.7%
Medicaid 2007 enrollment	1,559,057	63.6%	1,277,899	65.7%	1,338,726	66.1%	1,334,377	65.4%
Medicaid 2008 enrollment	1,559,277	63.7%	1,245,507	64.0%	1,340,816	66.2%	1,357,370	66.5%
Both Medicare & Medicaid 2007 enrollment	313,633	12.8%	278,168	14.3%	277,732	13.7%	270,088	13.2%
Both Medicare & Medicaid 2008 enrollment	324,192	13.2%	283,568	14.6%	293,317	14.5%	286,829	14.1%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B4. Restrictive Match Rate: <62 Years of Age								
	HUD (any year) (N=1,970,548)		HUD 2007 (N=1,563,245)		HUD 2008 (N=1,627,667)		HUD 2009 (N=1,635,510)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	1,392,194	70.7%	1,115,788	71.4%	1,185,205	72.8%	1,192,522	72.9%
Any Medicare enrollment (07, 08, or 09)	115,689	5.9%	104,573	6.7%	104,791	6.4%	101,110	6.2%
Medicare 2007 enrollment	99,005	5.0%	91,626	5.9%	90,463	5.6%	86,091	5.3%
Medicare 2008 enrollment	106,031	5.4%	96,791	6.2%	97,336	6.0%	93,363	5.7%
Medicare 2009 enrollment	112,446	5.7%	101,085	6.5%	102,784	6.3%	100,424	6.1%
Any Medicaid enrollment (07 or 08)	1,375,484	69.8%	1,100,711	70.4%	1,170,474	71.9%	1,178,335	72.0%
Medicaid 2007 enrollment	1,286,974	65.3%	1,054,412	67.5%	1,108,342	68.1%	1,100,609	67.3%
Medicaid 2008 enrollment	1,292,358	65.6%	1,028,380	65.8%	1,108,860	68.1%	1,121,572	68.6%
Both Medicare & Medicaid 2007 enrollment	82,878	4.2%	77,000	4.9%	76,196	4.7%	72,466	4.4%
Both Medicare & Medicaid 2008 enrollment	88,726	4.5%	80,896	5.2%	81,899	5.0%	78,742	4.8%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B5. Restrictive Match Rate: Age 62 to 64								
	HUD (any year) (N=56,057)		HUD 2007 (N=42,974)		HUD 2008 (N=46,375)		HUD 2009 (N=49,885)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	35,279	62.9%	33,253	77.4%	32,659	70.4%	31,648	63.4%
Any Medicare enrollment (07, 08, or 09)	16,062	28.7%	26,723	62.2%	20,877	45.0%	14,217	28.5%
Medicare 2007 enrollment	14,497	25.9%	12,178	28.3%	12,439	26.8%	12,742	25.5%
Medicare 2008 enrollment	15,030	26.8%	19,384	45.1%	13,059	28.2%	13,493	27.0%
Medicare 2009 enrollment	15,379	27.4%	25,963	60.4%	20,512	44.2%	14,157	28.4%
Any Medicaid enrollment (07 or 08)	31,440	56.1%	24,802	57.7%	26,023	56.1%	28,284	56.7%
Medicaid 2007 enrollment	29,541	52.7%	22,838	53.1%	24,368	52.5%	26,554	53.2%
Medicaid 2008 enrollment	26,991	48.1%	21,558	50.2%	22,277	48.0%	24,580	49.3%
Both Medicare & Medicaid 2007 enrollment	10,743	19.2%	9,025	21.0%	9,231	19.9%	9,471	19.0%
Both Medicare & Medicaid 2008 enrollment	11,081	19.8%	13,853	32.2%	9,665	20.8%	9,981	20.0%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B6. Restrictive Match Rate: Age 65+								
	HUD (any year) (N=421,559)		HUD 2007 (N=338,128)		HUD 2008 (N=349,658)		HUD 2009 (N=354,609)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	365,810	86.8%	294,964	87.2%	308,223	88.1%	313,779	88.5%
Any Medicare enrollment (07, 08, or 09)	353,799	83.9%	287,805	85.1%	300,571	86.0%	304,734	85.9%
Medicare 2007 enrollment	331,827	78.7%	285,204	84.3%	289,072	82.7%	284,040	80.1%
Medicare 2008 enrollment	331,991	78.8%	275,608	81.5%	297,227	85.0%	294,587	83.1%
Medicare 2009 enrollment	327,744	77.7%	262,833	77.7%	287,555	82.2%	302,835	85.4%
Any Medicaid enrollment (07 or 08)	254,660	60.4%	208,295	61.6%	215,737	61.7%	216,776	61.1%
Medicaid 2007 enrollment	242,542	57.5%	200,648	59.3%	206,016	58.9%	207,214	58.4%
Medicaid 2008 enrollment	239,928	56.9%	195,568	57.8%	209,679	60.0%	211,218	59.6%
Both Medicare & Medicaid 2007 enrollment	220,012	52.2%	192,143	56.8%	192,305	55.0%	188,151	53.1%
Both Medicare & Medicaid 2008 enrollment	224,385	53.2%	188,819	55.8%	201,753	57.7%	198,106	55.9%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B7. Restrictive Match Rate: Heads of Household, All Ages								
	HUD (any year) (N=1,122,000)		HUD 2007 (N=931,294)		HUD 2008 (N=958,115)		HUD 2009 (N=960,903)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	843,187	75.2%	705,020	75.7%	732,786	76.5%	737,491	76.7%
Any Medicare enrollment (07, 08, or 09)	428,191	38.2%	372,196	40.0%	377,054	39.4%	370,681	38.6%
Medicare 2007 enrollment	395,174	35.2%	347,420	37.3%	348,819	36.4%	339,785	35.4%
Medicare 2008 enrollment	399,710	35.6%	347,892	37.4%	361,459	37.7%	355,227	37.0%
Medicare 2009 enrollment	400,087	35.7%	344,759	37.0%	362,235	37.8%	368,194	38.3%
Any Medicaid enrollment (07 or 08)	724,679	64.6%	605,222	65.0%	629,986	65.8%	634,244	66.0%
Medicaid 2007 enrollment	684,569	61.0%	576,772	61.9%	597,431	62.4%	599,538	62.4%
Medicaid 2008 enrollment	676,406	60.3%	563,149	60.5%	598,076	62.4%	603,939	62.9%
Both Medicare & Medicaid 2007 enrollment	275,784	24.6%	246,323	26.4%	244,853	25.6%	237,378	24.7%
Both Medicare & Medicaid 2008 enrollment	283,501	25.3%	249,765	26.8%	257,811	26.9%	251,431	26.2%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B8. Restrictive Match Rate: Heads of Household, <62 Years of Age								
	HUD (any year) (N=702,852)		HUD 2007 (N=592,293)		HUD 2008 (N=608,852)		HUD 2009 (N=606,692)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	489,567	69.7%	412,645	69.7%	431,274	70.8%	433,677	71.5%
Any Medicare enrollment (07, 08, or 09)	99,811	14.2%	91,102	15.4%	91,219	15.0%	88,166	14.5%
Medicare 2007 enrollment	86,210	12.3%	80,527	13.6%	79,410	13.0%	75,614	12.5%
Medicare 2008 enrollment	91,801	13.1%	84,556	14.3%	85,069	14.0%	81,727	13.5%
Medicare 2009 enrollment	96,890	13.8%	87,931	14.8%	89,355	14.7%	87,567	14.4%
Any Medicaid enrollment (07 or 08)	475,213	67.6%	399,556	67.5%	418,503	68.7%	421,347	69.4%
Medicaid 2007 enrollment	446,996	63.6%	379,544	64.1%	395,762	65.0%	396,124	65.3%
Medicaid 2008 enrollment	444,399	63.2%	372,223	62.8%	395,251	64.9%	399,087	65.8%
Both Medicare & Medicaid 2007 enrollment	72,155	10.3%	67,681	11.4%	66,861	11.0%	63,603	10.5%
Both Medicare & Medicaid 2008 enrollment	76,837	10.9%	70,700	11.9%	71,582	11.8%	68,922	11.4%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B9. Restrictive Match Rate: Heads of Household, Age 62 to 64								
	HUD (any year) (N=47,374)		HUD 2007 (N=37,145)		HUD 2008 (N=39,593)		HUD 2009 (N=42,274)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	30,629	64.7%	29,094	78.3%	28,448	71.9%	27,530	65.1%
Any Medicare enrollment (07, 08, or 09)	14,654	30.9%	23,473	63.2%	18,536	46.8%	13,006	30.8%
Medicare 2007 enrollment	13,273	28.0%	11,233	30.2%	11,444	28.9%	11,702	27.7%
Medicare 2008 enrollment	13,724	29.0%	17,267	46.5%	11,991	30.3%	12,371	29.3%
Medicare 2009 enrollment	14,014	29.6%	22,767	61.3%	18,180	45.9%	12,947	30.6%
Any Medicaid enrollment (07 or 08)	27,252	57.5%	21,867	58.9%	22,767	57.5%	24,565	58.1%
Medicaid 2007 enrollment	25,728	54.3%	20,276	54.6%	21,425	54.1%	23,165	54.8%
Medicaid 2008 enrollment	23,446	49.5%	19,049	51.3%	19,591	49.5%	21,433	50.7%
Both Medicare & Medicaid 2007 enrollment	9,954	21.0%	8,422	22.7%	8,584	21.7%	8,801	20.8%
Both Medicare & Medicaid 2008 enrollment	10,235	21.6%	12,447	33.5%	8,974	22.7%	9,258	21.9%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B10. Restrictive Match Rate: Heads of Household, Age 65+								
	HUD (any year) (N=371,728)		HUD 2007 (N=301,856)		HUD 2008 (N=309,626)		HUD 2009 (N=311,891)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	322,991	86.9%	263,281	87.2%	273,064	88.2%	276,284	88.6%
Any Medicare enrollment (07, 08, or 09)	313,726	84.4%	257,621	85.3%	267,299	86.3%	269,509	86.4%
Medicare 2007 enrollment	295,691	79.5%	255,660	84.7%	257,965	83.3%	252,469	80.9%
Medicare 2008 enrollment	294,185	79.1%	246,069	81.5%	264,399	85.4%	261,129	83.7%
Medicare 2009 enrollment	289,183	77.8%	234,061	77.5%	254,700	82.3%	267,680	85.8%
Any Medicaid enrollment (07 or 08)	222,214	59.8%	183,799	60.9%	188,716	60.9%	188,332	60.4%
Medicaid 2007 enrollment	211,845	57.0%	176,952	58.6%	180,244	58.2%	180,249	57.8%
Medicaid 2008 enrollment	208,561	56.1%	171,877	56.9%	183,234	59.2%	183,419	58.8%
Both Medicare & Medicaid 2007 enrollment	193,675	52.1%	170,220	56.4%	169,408	54.7%	164,974	52.9%
Both Medicare & Medicaid 2008 enrollment	196,429	52.8%	166,618	55.2%	177,255	57.2%	173,251	55.5%
NOTE: Shaded cells are of most interest for the column.								

TABLE D-B11. Restrictive Match Rate: Heads of Household, Receiving SSI								
	HUD (any year) (N=289,907)		HUD 2007 (N=141,073)		HUD 2008 (N=17,385)		HUD 2009 (N=131,434)	
	N	%	N	%	N	%	N	%
Any Medicare or Medicaid enrollment (07, 08, or 09)	258,431	89.1%	126,545	89.7%	14,639	84.2%	117,247	89.2%
Any Medicare enrollment (07, 08, or 09)	166,405	57.4%	44,717	31.7%	7,655	44.0%	114,033	86.8%
Medicare 2007 enrollment	153,064	52.8%	39,062	27.7%	4,494	25.8%	109,508	83.3%
Medicare 2008 enrollment	159,658	55.1%	42,143	29.9%	4,732	27.2%	112,783	85.8%
Medicare 2009 enrollment	161,125	55.6%	44,015	31.2%	7,539	43.4%	109,571	83.4%
Any Medicaid enrollment (07 or 08)	253,178	87.3%	124,439	88.2%	13,823	79.5%	114,916	87.4%
Medicaid 2007 enrollment	249,691	86.1%	122,384	86.8%	13,418	77.2%	113,889	86.7%
Medicaid 2008 enrollment	248,031	85.6%	122,425	86.8%	11,895	68.4%	113,711	86.5%
Both Medicare & Medicaid 2007 enrollment	147,984	51.0%	36,985	26.2%	4,215	24.2%	106,784	81.2%
Both Medicare & Medicaid 2008 enrollment	154,643	53.3%	39,944	28.3%	4,445	25.6%	110,254	83.9%

TABLE D-B12. Comparison of HUD-Assisted Individuals Who Linked to Medicare or Medicaid by Age Group, 2008										
	HUD-Assisted Individuals (<65 years) (N=1,970,702)					HUD-Assisted Individuals (>65 years) (N=56,060)				Restrictive Match Rate by Characteristic
	Linked to 2008 Medicaid Enrollment Files (N=1,121,137)		Did Not Link to 2008 Medicaid Enrollment Files (N=542,905)		p-Value	Linked to 2008 Medicaid Enrollment Files (N=305,153)		Did Not Link to 2008 Medicaid Enrollment Files (N=44,505)		p-Value	
	Mean	SD	Mean	SD		Mean	SD	Mean	SD		
Age--All Persons	24.56	17.90	30.42	18.39	<0.0001	76.27	7.69	76.86	8.28	<0.0001	
Age--Household Heads	42.61	11.81	45.49	11.50	<0.0001	76.52	7.77	77.17	8.34	<0.0001	
	N	%	N	%		N	%	N	%		
Gender											
Male	429,972	38.0%	216,918	40.0%	<0.0001	91,241	29.9%	13,416	30.1%	<0.0001	87.2%
Female	701,165	62.0%	325,903	60.0%		213,912	70.1%	30,965	69.6%		87.4%
Unknown/declined to report	*	*	84	0.0%		*	*	124	0.3%		
Age Group											
0-18	531,042	46.9%	168,356	31.0%	<0.0001						
18-44	383,522	33.9%	220,231	40.6%							
45-61	194,296	17.2%	130,220	24.0%							
62-64	22,277	2.0%	24,098	4.4%							
65-69						70,529	23.1%	10,466	23.5%	<0.0001	87.1%
70-74						70,838	23.2%	9,332	21.0%		88.4%
75-79						62,319	20.4%	8,341	18.7%		88.2%
80-84						51,798	17.0%	7,600	17.1%		87.2%
85+						49,669	16.3%	8,766	19.7%		85.0%
Race/Ethnicity											
White non-Hispanic	196,344	17.4%	59,773	11.0%	<0.0001	65,942	21.6%	6,462	14.5%	<0.0001	91.1%
Hispanic	293,367	25.9%	131,007	24.1%		46,760	15.3%	8,528	19.2%		84.6%
Black non-Hispanic	456,226	40.3%	241,907	44.6%		48,785	16.0%	10,729	24.1%		82.0%
Asian	29,199	2.6%	14,199	2.6%		11,373	3.7%	1,250	2.8%		90.1%
American Indian/Alaskan	2,222	0.2%	938	0.2%		428	0.1%	49	0.1%		89.7%
Hawaiian/Pacific Islander	1,492	0.1%	790	0.1%		351	0.1%	39	0.1%		90.0%
Other non-Hispanic	146	0.0%	66	0.0%		33	0.0%	*	*		82.5%
Mixed non-Hispanic	132	0.0%	56	0.0%		73	0.0%	*	*		90.1%
Unknown/declined to report	152,009	13.4%	94,169	17.3%		131,408	43.1%	17,433	39.2%		88.3%

	HUD-Assisted Individuals (<65 years) (N=1,970,702)					HUD-Assisted Individuals (>65 years) (N=56,060)					Restrictive Match Rate by Characteristic
	Linked to 2008 Medicaid Enrollment Files (N=1,121,137)		Did Not Link to 2008 Medicaid Enrollment Files (N=542,905)		p-Value	Linked to 2008 Medicaid Enrollment Files (N=305,153)		Did Not Link to 2008 Medicaid Enrollment Files (N=44,505)		p-Value	
	Mean	SD	Mean	SD		Mean	SD	Mean	SD		
Property Type											
Public housing	314,201	27.8%	206,232	38.0%	<0.0001	89,013	29.2%	16,709	37.5%	<0.0001	84.2%
Housing choice vouchers	630,610	55.8%	226,884	41.8%		74,796	24.5%	9,005	20.2%		89.3%
Other multifamily	170,340	15.1%	102,264	18.8%		91,469	30.0%	12,836	28.8%		87.7%
Section 202	5,330	0.5%	2,817	0.5%		48,424	15.9%	5,750	12.9%		89.4%
Section 811 & 202/162	2,736	0.2%	893	0.2%		298	0.1%	37	0.1%		89.0%
Other	7,920	0.7%	3,815	0.7%		1,153	0.4%	168	0.4%		87.3%
Subsidy Type											
Public housing	315,985	27.9%	206,874	38.1%	<0.0001	89,290	29.3%	16,753	37.6%	<0.0001	84.2%
Housing choice vouchers	636,520	56.3%	228,800	42.1%		75,351	24.7%	9,094	20.4%		89.2%
Project-Based Section 8	155,410	13.7%	88,143	16.2%		113,582	37.2%	15,259	34.3%		88.2%
Section 202	467	0.0%	485	0.1%		18,258	6.0%	1,996	4.5%		90.1%
Section 202/162	31	0.0%	11	0.0%		51	0.0%	*	*		87.9%
Section 811	2,627	0.2%	855	0.2%		294	0.1%	37	0.1%		88.8%
Other	20,097	1.8%	17,737	3.3%		8,327	2.7%	1,359	3.1%		86.0%
Elderly Designated Property											
Yes	59,788	5.3%	40,523	7.5%	<0.0001	160,398	52.6%	20,102	45.2%	<0.0001	88.9%
No	438,541	38.8%	274,457	50.6%		69,377	22.7%	15,328	34.4%		81.9%
Unknown	632,808	55.9%	227,925	42.0%		75,378	24.7%	9,075	20.4%		89.3%
Disability or Handicapped Status											
Yes	213,843	18.9%	53,557	9.9%	<0.0001	90,974	29.8%	13,511	30.4%	<0.0001	87.1%
No	793,739	70.2%	407,938	75.1%		213,603	70.0%	30,833	69.3%		87.4%
Unknown/declined to report	123,555	10.9%	81,410	15.0%		576	0.2%	161	0.4%		78.2%
Living Arrangement											
Lives Alone	123,759	10.9%	82,829	15.3%	<0.0001	209,450	68.6%	29,612	66.5%	<0.0001	87.6%
Lives with Spouse	12,890	1.1%	13,267	2.4%		55,419	18.2%	6,626	14.9%		89.3%
Other Adults	58,816	5.2%	59,545	11.0%		20,713	6.8%	4,277	9.6%		82.9%
Children in Household	925,455	81.8%	375,234	69.1%		14,537	4.8%	3,082	6.9%		82.5%
Live-in Aide	2,655	0.2%	2,779	0.5%		1,316	0.4%	224	0.5%		85.5%
Other	105	0.0%	148	0.0%		19	0.0%	*	*		73.1%
Unknown/declined to report	7,457	0.7%	9,103	1.7%		3,699	1.2%	677	1.5%		84.5%
SSI											
Receives SSI	198,457	17.5%	34,140	6.3%		134,484	44.1%	16,944	38.1%		

	HUD-Assisted Individuals (<65 years) (N=1,970,702)					HUD-Assisted Individuals (>65 years) (N=56,060)					Restrictive Match Rate by Characteristic
	Linked to 2008 Medicaid Enrollment Files (N=1,121,137)		Did Not Link to 2008 Medicaid Enrollment Files (N=542,905)		p-Value	Linked to 2008 Medicaid Enrollment Files (N=305,153)		Did Not Link to 2008 Medicaid Enrollment Files (N=44,505)		p-Value	
	Mean	SD	Mean	SD		Mean	SD	Mean	SD		
Geographic Area											
Vermont	14,956	1.3%	2,910	0.5%	<0.0001	4,350	1.4%	270	0.6%	<0.0001	94.2%
New Haven-Milford	31,451	2.8%	10,396	1.9%		7,016	2.3%	767	1.7%		90.1%
Bridgeport-Stamford-Norwalk	19,831	1.8%	8,651	1.6%		5,538	1.8%	716	1.6%		88.6%
Milwaukee-Waukesha-West Allis	34,094	3.0%	7,787	1.4%		8,373	2.7%	706	1.6%		92.2%
San Francisco-Oakland-Fremont	82,586	7.3%	48,047	8.8%		29,542	9.7%	3,173	7.1%		90.3%
Boston-Cambridge-Quincy	147,750	13.1%	46,386	8.5%		43,124	14.1%	4,799	10.8%		90.0%
Durham-Chapel Hill	11,877	1.1%	4,271	0.8%		1,380	0.5%	206	0.5%		87.0%
Richmond	11,005	1.0%	28,114	5.2%		1,185	0.4%	2,614	5.9%		31.2%
New York-Northern New Jersey-Long Island	628,304	55.5%	349,780	64.4%		182,507	59.8%	29,141	65.5%		86.2%
Columbus	51,159	4.5%	12,417	2.3%		7,107	2.3%	739	1.7%		90.6%
Akron	25,598	2.3%	5,536	1.0%		3,467	1.1%	260	0.6%		93.0%
Cleveland	72,526	6.4%	18,610	3.4%		11,564	3.8%	1,114	2.5%		91.2%

TABLE D-B12 (*continued*)

NOTE: TOTAL N lower than Table 1 N due to individuals with unknown age.

* Cell sizes of less than 11 are not displayed.

Objective C. Estimate HUD-Assisted Medicare Beneficiaries with Enrollment in Part D Subsidy Assistance Programs or Medical Savings Program (i.e., Medicaid)

TABLE D-C1. Health Insurance Characteristics of Those That Link by Year by Age												
	All Ages						<62 Years of Age					
	2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009		2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009	
	N	%	N	%	N	%	N	%	N	%	N	%
Individuals Linked to Medicare	389,008		407,622		417,416		91,626		97,336		100,424	
Proportion with Part A coverage	377,190	97.0%	394,904	96.9%	407,199	97.55%	91,614	100.0%	97,326	100.0%	100,410	99.99%
Average months of Medicare Part A coverage (among those with Part A cov)	11.56		11.59		11.59		11.55		11.54		11.54	
Proportion with Part B coverage	379,662	97.6%	398,480	97.8%	408,535	97.87%	88,188	96.2%	94,190	96.8%	97,418	97.01%
Average months of Medicare Part B coverage (among those with Part B cov)	11.56		11.57		11.58		11.45		11.45		11.46	
Proportion enrolled in Medicare Part A & B during entire year	338,861	87.1%	357,082	87.6%	367,881	88.13%	80,033	87.3%	85,493	87.8%	88,591	88.22%
Proportion in Medicare managed care for at least one month	86,722	22.3%	108,499	26.6%	115,231	27.61%	11,643	12.7%	16,668	17.1%	18,974	18.89%
Average months of Medicare HMO coverage (among those with HMO cov)	10.28		10.31		10.78		9.68		9.61		10.30	
Original Reason for Entitlement												
Old age & survivor's insurance	240,777	61.9%	249,547	61.2%	253,112	60.64%	42	0.0%	34	0.0%	*	*
Disability insurance benefits	144,761	37.2%	154,452	37.9%	160,598	38.47%	88,941	97.1%	94,575	97.2%	97,648	97.24%
ESRD	1,393	0.4%	1,435	0.4%	1,445	0.35%	1,010	1.1%	1,029	1.1%	1,022	1.02%
Disability Insurance & ESRD	2,077	0.5%	2,188	0.5%	2,261	0.54%	1,633	1.8%	1,698	1.7%	1,744	1.74%

	All Ages						<62 Years of Age					
TABLE D-C1 (*continued*)	**2007 Linked to Medicare or Medicaid 2007**		**2008 Linked to Medicare or Medicaid 2008**		**2009 Linked to Medicare 2009**		**2007 Linked to Medicare or Medicaid 2007**		**2008 Linked to Medicare or Medicaid 2008**		**2009 Linked to Medicare 2009**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Current Reason for Entitlement												
Old age & survivor's insurance	282,569	72.6%	293,238	71.9%	297,451	71.26%	55	0.1%	44	0.0%	12	0.01%
Disability insurance benefits	103,211	26.5%	111,052	27.2%	116,618	27.94%	89,194	97.3%	94,871	97.5%	97,987	97.57%
ESRD	1,589	0.4%	1,627	0.4%	1,632	0.39%	957	1.0%	978	1.0%	968	0.96%
Disability Insurance & ESRD	1,639	0.4%	1,705	0.4%	1,715	0.41%	1,420	1.5%	1,443	1.5%	1,457	1.45%
Medicare Coverage Status												
Part A only	7,946	2.0%	7,686	1.9%	7,422	1.78%	2,917	3.2%	2,659	2.7%	2,488	2.48%
Part B only	10,376	2.7%	11,178	2.7%	8,313	1.99%	*	*	*	*	11	0.01%
Both Part A & B or combination of coverage	370,686	95.3%	388,758	95.4%	401,681	96.23%	88,699	96.8%	94,668	97.3%	97,925	97.51%
Medicare Part D coverage at any point during the year	344,945	88.7%	365,812	89.7%	376,864	90.28%	84,774	92.5%	91,007	93.5%	94,314	93.92%
Average months of Part D coverage (among those with Part D cov)	11.43		11.50		11.52	0.00%	11.40		11.41		11.43	
Proportion with Part D Coverage by Cost Share Group Code												
Beneficiary deemed with 100% premium-subsidy & no copayment	11,148	3.2%	10,790	2.9%	11,550	3.1%	2,447	2.9%	2,311	2.5%	2,384	2.5%
Beneficiary deemed with 100% premium-subsidy & low copayment	221,010	64.1%	232,159	63.5%	244,176	64.8%	60,328	71.2%	64,310	70.7%	67,367	71.4%
Beneficiary deemed with 100% premium-subsidy & high copayment	34,488	10.0%	36,768	10.1%	37,541	10.0%	10,125	11.9%	11,009	12.1%	11,095	11.8%
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	14,387	4.2%	15,368	4.2%	15,638	4.1%	2,966	3.5%	3,386	3.7%	3,582	3.8%
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy & 15% copayment	1,213	0.4%	1,105	0.3%	1,044	0.3%	75	0.1%	83	0.1%	78	0.1%
Beneficiary with LIS, 75% premium-subsidy & 15% copayment	1,909	0.6%	1,984	0.5%	2,074	0.6%	277	0.3%	333	0.4%	350	0.4%
Beneficiary with LIS, 50% premium-subsidy & 15% copayment	1,810	0.5%	1,866	0.5%	1,851	0.5%	299	0.4%	303	0.3%	301	0.3%
Beneficiary with LIS, 25% premium-subsidy & 15% copayment	1,798	0.5%	1,497	0.4%	1,571	0.4%	280	0.3%	212	0.2%	221	0.2%

	All Ages						<62 Years of Age					
	2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009		2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009	
	N	%	N	%	N	%	N	%	N	%	N	%
No premium subsidy nor cost sharing	42,050	12.2%	45,761	12.5%	48,547	12.9%	3,734	4.4%	4,041	4.4%	4,322	4.6%
Missing	15,132	4.4%	18,514	5.1%	12,872	3.4%	4,243	5.0%	5,019	5.5%	4,614	4.9%
Individuals Linked to Medicaid	1,277,899		1,340,816				1,054,412		1,108,860			
Average months of Medicaid coverage (FFS or Managed care)	10.92		10.97				10.86		10.92			
Proportion enrolled in Medicaid during entire year (FFS or Managed care)	1,010,821	79.1%	1,071,619	79.9%			817,090	77.5%	868,218	78.3%		
In Medicaid managed care for at least one month	218,959	17.1%	247,620	18.5%			106,382	10.1%	131,019	11.8%		
Average months of Medicaid managed care (among those with managed care)	8.43		8.34				8.47		8.33			
Medicaid Basis for Eligibility												
Aged	155,633	12.2%	162,212	12.1%			69	0.0%	57	0.0%		
Blind/disabled	280,808	22.0%	291,812	21.8%			216,458	20.5%	225,466	20.3%		
Child	525,097	41.1%	546,178	40.7%			525,072	49.8%	546,167	49.3%		
Adult	299,414	23.4%	324,304	24.2%			296,159	28.1%	320,993	28.9%		
Child of unemployed adult	979	0.1%	750	0.1%			979	0.1%	750	0.1%		
Unemployed adult	815	0.1%	632	0.0%			812	0.1%	631	0.1%		
Foster care child	6,778	0.5%	6,461	0.5%			6,778	0.6%	6,461	0.6%		
Covered under Breast & Cervical Cancer Prevention Act	75	0.0%	97	0.0%			61	0.0%	81	0.0%		
Unknown	783	0.1%	336	0.0%			538	0.1%	254	0.0%		
9011	7,517	0.6%	8,034	0.6%			7,486	0.7%	8,000	0.7%		
Medicaid Maintenance of Assistance												
Receiving cash or eligible under Section 1931 of the Act	665,503	52.1%	716,485	53.4%			527,986	50.1%	573,898	51.8%		
Medically needy	120,356	9.4%	114,574	8.5%			91,140	8.6%	84,066	7.6%		
Poverty related (includes children eligible under SCHIP expansion)	201,931	15.8%	204,652	15.3%			168,439	16.0%	168,832	15.2%		
Other	150,070	11.7%	147,396	11.0%			133,198	12.6%	130,502	11.8%		
Foster care child	6,778	0.5%	6,461	0.5%			6,778	0.6%	6,461	0.6%		
1115 demonstration expansion eligible	124,961	9.8%	142,878	10.7%			118,847	11.3%	136,847	12.3%		

	All Ages						<62 Years of Age					
	2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009		2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009	
	N	%	N	%	N	%	N	%	N	%	N	%
Unknown	783	0.1%	336	0.0%			538	0.1%	254	0.0%		
Missing	7,517	0.6%	8,034	0.6%			7,486	0.7%	8,000	0.7%		
Proportion with 1915c waiver status code	28,136	7.2%	30,025	2.2%			10,298	1.0%	11,237	1.0%		
Type of 1915c Waiver Status Code												
Unknown--missing eligibility	783	0.1%	533	0.0%			538	0.1%	451	0.0%		
Aged & disabled	13,575	1.1%	14,772	1.1%			1,912	0.2%	2,341	0.2%		
Aged	5,568	0.4%	5,683	0.4%			36	0.0%	29	0.0%		
Disabled	1,233	0.1%	1,245	0.1%			1,197	0.1%	1,209	0.1%		
Brain injured	104	0.0%	127	0.0%			99	0.0%	122	0.0%		
HIV-AIDS	279	0.0%	241	0.0%			248	0.0%	213	0.0%		
MR/DD	7,366	0.6%	7,949	0.6%			6,795	0.6%	7,315	0.7%		
Mentally ill/severely emotionally disturbed	*	*	*	*			*	*	*	*		
Technology-dependent/medically fragile	11	0.0%	*	*			11	0.0%	*	*		
Never enrolled in a 1915c waiver during the year	1,248,980	97.7%	1,310,258	97.7%			1,043,576	99.0%	1,097,172	98.9%		
Individuals Linked to Both Medicare & Medicaid in Given Year	278,168		293,317				77,000		81,899			
Average months of Medicare enrollment	10.91		10.96				11.20		11.25			
Average months of Medicaid enrollment	11.29		11.34				11.31		11.36			
Average months of both Medicare & Medicaid enrollment	10.99		11.06				10.78		10.86			
Proportion enrolled in Medicaid & Medicare during entire year	233,048	83.8%	247,856	84.5%			62,580	5.9%	66,926	81.7%		
Medicare & Medicaid Eligibility Status												
QMB only	10,191	3.7%	10,805	3.7%			3,668	4.8%	3,949	4.8%		
QMB plus	187,826	67.5%	196,167	66.9%			51,317	66.6%	53,462	65.3%		
SLMB only	11,188	4.0%	10,784	3.7%			2,636	3.4%	2,649	3.2%		
SLMB Plus	3,770	1.4%	4,661	1.6%			1,123	1.5%	1,457	1.8%		
Other dual	62,307	22.4%	68,471	23.3%			16,862	21.9%	19,128	23.4%		
Unknown	209	0.1%	83	0.0%			39	0.1%	21	0.0%		
NA	2,677	1.0%	2,346	0.8%			1,355	1.8%	1,233	1.5%		

	Age 62 - 64						Age 65+					
TABLE D-C1 (*continued*)												
	2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009		2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009	
	N	%	N	%	N	%	N	%	N	%	N	%
Individuals linked to Medicare	12,178		13,059		14,157		285,204		297,227		302,835	
Proportion with Part A coverage	12,159	100.00%	13,038	99.84%	14,133	99.83%	273,417	95.87%	284,540	95.73%	292,656	96.64%
Average months of Medicare Part A coverage (among those with Part A cov)	11.61		11.61		11.62		11.57		11.61		11.60	
Proportion with Part B coverage	11,802	97.06%	12,658	96.93%	13,763	97.22%	279,672	98.06%	291,632	98.12%	297,354	98.19%
Average months of Medicare Part B coverage (among those with Part B cov)	11.55		11.56		11.55		11.60		11.61		11.62	
Proportion enrolled in Medicare Part A & B during entire year	10,906	89.69%	11,706	89.64%	12,729	89.91%	247,922	86.93%	259,883	87.44%	266,561	88.02%
Proportion in Medicare managed care for at least one month	2,651	21.80%	3,409	26.10%	3,803	26.86%	72,428	25.40%	88,422	29.75%	92,454	30.53%
Average months of Medicare HMO coverage (among those with HMO cov)	10.00		10.07		10.69		10.38		10.45		10.88	
Original Reason for Entitlement												
Old age & survivor's insurance	74	0.61%	72	0.55%	53	0.37%	240,661	84.38%	249,441	83.92%	253,049	83.56%
Disability insurance benefits	11,800	96.90%	12,650	96.87%	13,757	97.17%	44,020	15.43%	47,227	15.89%	49,193	16.24%
ESRD	107	0.88%	122	0.93%	130	0.92%	276	0.10%	284	0.10%	293	0.10%
Disability Insurance & ESRD	197	1.62%	215	1.65%	217	1.53%	247	0.09%	275	0.09%	300	0.10%
Current Reason for Entitlement												
Old age & survivor's insurance	100	0.82%	91	0.70%	64	0.45%	282,414	99.02%	293,103	98.61%	297,375	98.20%
Disability insurance benefits	11,790	96.81%	12,666	96.99%	13,785	97.37%	2,227	0.78%	3,515	1.18%	4,846	1.60%
ESRD	107	0.88%	117	0.90%	126	0.89%	525	0.18%	532	0.18%	538	0.18%
Disability Insurance & ESRD	181	1.49%	185	1.42%	182	1.29%	38	0.01%	77	0.03%	76	0.03%

	Age 62 - 64						Age 65+					
TABLE D-C1 (*continued*)												
	2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009		2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009	
	N	%	N	%	N	%	N	%	N	%	N	%
Medicare Coverage Status												
Part A only	339	2.78%	369	2.83%	369	2.61%	4,690	1.64%	4,658	1.57%	4,565	1.51%
Part B only	*	*	*	*	*	*	10,362	3.63%	11,166	3.76%	8,300	2.74%
Both Part A & B or combination of coverage	11,835	97.18%	12,687	97.15%	13,786	97.38%	270,152	94.72%	281,403	94.68%	289,970	95.75%
Medicare Part D coverage at any point during the year	10,927	89.73%	11,920	91.28%	12,939	91.40%	249,244	87.39%	262,885	88.45%	269,611	89.03%
Average months of Part D coverage (among those with Part D cov)	11.49		11.49		11.52		11.44		11.52		11.55	
Proportion with Part D Coverage by Cost Share Group Code												
Beneficiary deemed with 100% premium-subsidy & no copayment	351	3.2%	316	2.7%	324	2.5%	8,350	3.4%	8,163	3.1%	8,842	3.3%
Beneficiary deemed with 100% premium-subsidy & low copayment	6,787	62.1%	7,298	61.2%	8,111	62.7%	153,895	61.7%	160,551	61.1%	168,698	62.6%
Beneficiary deemed with 100% premium-subsidy & high copayment	1,513	13.8%	1,718	14.4%	1,795	13.9%	22,850	9.2%	24,041	9.1%	24,651	9.1%
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	525	4.8%	613	5.1%	692	5.3%	10,896	4.4%	11,369	4.3%	11,364	4.2%
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy & 15% copayment	18	0.2%	19	0.2%	20	0.2%	1,120	0.4%	1,003	0.4%	946	0.4%
Beneficiary with LIS, 75% premium-subsidy & 15% copayment	84	0.8%	70	0.6%	79	0.6%	1,548	0.6%	1,581	0.6%	1,645	0.6%
Beneficiary with LIS, 50% premium-subsidy & 15% copayment	62	0.6%	76	0.6%	83	0.6%	1,449	0.6%	1,487	0.6%	1,467	0.5%
Beneficiary with LIS, 25% premium-subsidy & 15% copayment	92	0.8%	85	0.7%	86	0.7%	1,426	0.6%	1,200	0.5%	1,264	0.5%
No premium subsidy nor cost sharing	1,056	9.7%	1,130	9.5%	1,276	9.9%	37,260	14.9%	40,590	15.4%	42,949	15.9%
Missing	439	4.0%	595	5.0%	473	3.7%	10,450	4.2%	12,900	4.9%	7,785	2.9%

TABLE D-C1 (*continued*)												
	Age 62 - 64						**Age 65+**					
	2007 Linked to Medicare or Medicaid 2007		**2008 Linked to Medicare or Medicaid 2008**		**2009 Linked to Medicare 2009**		**2007 Linked to Medicare or Medicaid 2007**		**2008 Linked to Medicare or Medicaid 2008**		**2009 Linked to Medicare 2009**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Individuals Linked to Medicaid	22,838		22,277				200,648		209,679			
Average months of Medicaid coverage (FFS or Managed care)	11.23		11.28				11.26		11.32			
Proportion enrolled in Medicaid during entire year (FFS or Managed care)	19,634	85.97%	19,357	86.89%			174,096	86.77%	184,044	87.77%		
In Medicaid managed care for at least one month	4,126	18.07%	4,847	21.76%			108,451	54.05%	111,754	53.30%		
Average months of Medicaid managed care (among those with managed care)	7.96		8.24				8.22		8.47			
Medicaid Basis for Eligibility												
Aged	63	0.28%	45	0.20%			155,501	77.50%	162,110	77.31%		
Blind/disabled	19,683	86.19%	19,067	85.59%			44,667	22.26%	47,279	22.55%		
Child	*	*	*	*			24	0.01%	*	*		
Adult	3,041	13.32%	3,119	14.00%			214	0.11%	192	0.09%		
Child of unemployed adult	*	*	*	*			*	*	*	*		
Unemployed adult	*	*	*	*			*	*	*	*		
Foster care child	*	*	*	*			*	*	*	*		
Covered under Breast & Cervical Cancer Prevention Act	12	0.05%	14	0.06%			*	*	*	*		
Unknown	21	0.09%	13	0.06%			224	0.11%	69	0.03%		
9011	15	0.07%	17	0.08%			16	0.01%	17	0.01%		
Medicaid Maintenance of Assistance												
Receiving cash or eligible under Section 1931 of the Act	13,079	57.27%	12,306	55.24%			124,438	62.02%	130,281	62.13%		
Medically needy	2,669	11.69%	2,569	11.53%			26,547	13.23%	27,939	13.32%		
Poverty related (includes children eligible under SCHIP expansion)	2,802	12.27%	3,086	13.85%			30,689	15.29%	32,734	15.61%		
Other	1,531	6.70%	1,498	6.72%			15,341	7.65%	15,396	7.34%		
Foster care child	*	*	*	*			*	*	*	*		
1115 demonstration expansion eligible	2,721	11.91%	2,788	12.52%			3,393	1.69%	3,243	1.55%		
Unknown	21	0.09%	13	0.06%			224	0.11%	69	0.03%		
Missing	15	0.07%	17	0.08%			16	0.01%	17	0.01%		
Proportion with 1915c waiver status code	1,091	4.78%	1,148	5.15%			16,747	8.35%	17,640	8.41%		

	Age 62 - 64						Age 65+					
TABLE D-C1 (*continued*)	2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009		2007 Linked to Medicare or Medicaid 2007		2008 Linked to Medicare or Medicaid 2008		2009 Linked to Medicare 2009	
	N	%	N	%	N	%	N	%	N	%	N	%
Type of 1915c Waiver Status Code												
Unknown--missing eligibility	21	0.09%	13	0.06%			224	0.11%	69	0.03%		
Aged & disabled	784	3.43%	831	3.73%			10,879	5.42%	11,600	5.53%		
Aged	117	0.51%	108	0.48%			5,415	2.70%	5,546	2.64%		
Disabled	18	0.08%	13	0.06%			18	0.01%	23	0.01%		
Brain injured	*	*	*	*			*	*	*	*		
HIV-AIDS	*	*	*	*			23	0.01%	24	0.01%		
MR/DD	162	0.71%	189	0.85%			409	0.20%	445	0.21%		
Mentally ill/severely emotionally disturbed	*	*	*	*			*	*	*	*		
Technology-dependent/medically fragile	*	*	*	*			*	*	*	*		
Never enrolled in a 1915c waiver during the year	21,726	95.13%	21,116	94.79%			183,677	91.54%	191,970	91.55%		
Individuals Linked to Both Medicare & Medicaid in Given Year	9,025		9,665				192,143		201,753			
Average months of Medicare enrollment	11.38		11.41				10.78		10.83			
Average months of Medicaid enrollment	11.15		11.28				11.29		11.34			
Average months of both Medicare & Medicaid enrollment	10.81		10.98				11.08		11.14			
Proportion enrolled in Medicaid & Medicare during entire year	7,253	80.37%	8,019	82.97%			163,215	84.94%	172,911	85.70%		
Medicare & Medicaid Eligibility Status												
QMB only	512	5.67%	567	5.87%			6,011	3.13%	6,289	3.12%		
QMB plus	5,545	61.44%	5,880	60.84%			130,964	68.16%	136,825	67.82%		
SLMB only	465	5.15%	485	5.02%			8,087	4.21%	7,650	3.79%		
SLMB Plus	152	1.68%	201	2.08%			2,495	1.30%	3,003	1.49%		
Other dual	2,237	24.79%	2,450	25.35%			43,208	22.49%	46,893	23.24%		
Unknown	11	0.12%	*	*			159	0.08%	56	0.03%		
NA	103	1.14%	76	0.79%			1,219	0.63%	1,037	0.51%		

* Cell sizes of less than 11 are not displayed.

TABLE D-C2. Health Insurance Characteristics of HUD Heads of Households Receiving SSI that Link in 2008 by Age								
	All Ages		Age <62		Age 62-64		Age 65+	
	N	%	N	%	N	%	N	%
Individuals Linked to 2008 Medicare	159,658		42,143		4,732		112,783	
Proportion with Part A coverage	151,062	94.6%	42,140	100.0%	4,716	99.7%	104,206	92.4%
Average months of Medicare Part A coverage (among those with Part A cov)	11.59		11.57		11.64		11.60	
Proportion with Part B coverage	158,717	99.4%	41,566	98.6%	4,673	98.8%	112,478	99.7%
Average months of Medicare Part B coverage (among those with Part B cov)	11.59		11.50		11.59		11.63	
Proportion enrolled in Medicare Part A and B during entire year	139,325	87.3%	37,963	90.1%	4,343	91.8%	97,019	86.0%
Proportion in Medicare managed care for at least one month	34,170	21.4%	6,419	15.2%	1,053	22.3%	26,698	23.7%
Average months of Medicare HMO coverage (among those with HMO cov)	9.67		9.16		9.64		9.79	
Original Reason for Entitlement								
Old age and survivor's insurance	97,812	61.3%	11	0.0%	31	0.7%	97,770	86.7%
Disability insurance benefits	60,300	37.8%	40,928	97.1%	4,559	96.3%	14,813	13.1%
ESRD	810	0.5%	599	1.4%	77	1.6%	134	0.1%
Disability Insurance and ESRD	736	0.5%	605	1.4%	65	1.4%	66	0.1%
Current Reason for Entitlement								
Old age and survivor's insurance	111,470	69.8%	16	0.0%	40	0.8%	111,414	98.8%
Disability insurance benefits	46,734	29.3%	41,025	97.3%	4,558	96.3%	1,151	1.0%
ESRD	851	0.5%	577	1.4%	76	1.6%	198	0.2%
Disability Insurance and ESRD	603	0.4%	525	1.2%	58	1.2%	20	0.0%
Medicare Coverage Status								
Part A only	802	0.5%	498	1.2%	54	1.1%	250	0.2%
Part B only	7,707	4.8%	*	*	*	*	7,702	6.8%
Both Part A and B or combination of coverage	151,149	94.7%	41,643	98.8%	4,675	98.8%	104,831	92.9%
Medicare Part D coverage at any point during the year	157,314	98.5%	41,006	97.3%	4,628	97.8%	111,680	99.0%
Average months of Part D coverage (among those with Part D cov)	11.56		11.44		11.53		11.61	
Proportion with Part D Coverage by Cost Share Group Code								
Beneficiary deemed with 100% premium-subsidy and no copayment	4,489	2.9%	1,159	2.8%	145	3.1%	3,185	2.9%
Beneficiary deemed with 100% premium-subsidy and low copayment	141,001	89.6%	34,685	84.6%	3,905	84.4%	102,411	91.7%
Beneficiary deemed with 100% premium-subsidy and high copayment	3,650	2.3%	2,155	5.3%	216	4.7%	1,279	1.1%
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	816	0.5%	420	1.0%	62	1.3%	334	0.3%
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy and 15% copayment	42	0.0%	*	*	*	*	30	0.0%

TABLE D-C2 (*continued*)							
	All Ages		Age <62		Age 62-64		Age 65+	
	N	%	N	%	N	%	N	%
Beneficiary with LIS, 75% premium-subsidy and 15% copayment	68	0.0%	39	0.1%	*	*	21	0.0%
Beneficiary with LIS, 50% premium-subsidy and 15% copayment	70	0.0%	34	0.1%	*	*	30	0.0%
Beneficiary with LIS, 25% premium-subsidy and 15% copayment	41	0.0%	28	0.1%	*	*	*	*
No premium subsidy nor cost sharing	1,236	0.8%	464	1.1%	85	1.8%	687	0.6%
Missing	5,901	3.8%	2,013	4.9%	195	4.2%	3,693	3.3%
Individuals Linked to Medicaid	248,031		122,425		11,895		113,711	
Average months of Medicaid coverage (FFS or Managed care)	11.70		11.69		11.69		11.71	
Proportion enrolled in Medicaid during entire year (FFS or Managed care)	233,708	94.2%	114,744	93.7%	11,193	94.1%	107,771	94.8%
In Medicaid managed care for at least one month	16,028	6.5%	7,399	6.0%	661	5.6%	7,968	7.0%
Average months of Medicaid managed care (among those with managed care)	8.31		8.20		7.78		8.46	
Medicaid Basis for Eligibility								
Aged	75,531	30.5%	15	0.0%	19	0.2%	75,497	66.4%
Blind/disabled	162,754	65.6%	112,891	92.2%	11,692	98.3%	38,171	33.6%
Child	74	0.0%	74	0.1%	*	*	*	*
Adult	9,505	3.8%	9,299	7.6%	176	1.5%	30	0.0%
Child of Unemployed Adult	*	*	*	*	*	*	*	*
Unemployed Adult	*	*	*	*	*	*	*	*
Foster Care Child	*	*	*	*	*	*	*	*
Covered under Breast and Cervical Cancer Prevention Act	*	*	*	*	*	*	*	*
Unknown	26	0.0%	13	0.0%	*	*	*	*
Missing	130	0.1%	123	0.1%	*	*	*	*
Medicaid Maintenance of Assistance								
Receiving cash or eligible under section 1931 of the Act	221,477	89.3%	105,472	86.2%	10,244	86.1%	105,761	93.0%
Medically needy	6,023	2.4%	2,801	2.3%	432	3.6%	2,790	2.5%
Poverty related (includes children eligible under S-CHIP expansion)	6,742	2.7%	4,267	3.5%	484	4.1%	1,991	1.8%
Other	10,766	4.3%	7,095	5.8%	572	4.8%	3,099	2.7%
Foster Care Child	*	*	*	*	*	*	*	*
1115 Demonostration expansion eligible	2,865	1.2%	2,652	2.2%	156	1.3%	57	0.1%
Unknown	26	0.0%	13	0.0%	*	*	*	*
Missing	130	0.1%	123	0.1%	*	*	*	*
Proportion with 1915c waiver status code	13,790	5.6%	4,299	3.5%	639	5.4%	8,852	7.8%

TABLE D-C2 (*continued*)								
	All Ages		Age <62		Age 62-64		Age 65+	
	N	%	N	%	N	%	N	%
Type of 1915c Waiver Status Code								
Unknown--missing eligibility	26	0.0%	13	0.0%	*	*	*	*
Aged and disabled	7,718	3.1%	1,219	1.0%	479	4.0%	6,020	5.3%
Aged	2,680	1.1%	21	0.0%	67	0.6%	2,592	2.3%
Disabled	756	0.3%	746	0.6%	*	*	*	*
Brain injured	43	0.0%	42	0.0%	*	*	*	*
HIV-AIDS	129	0.1%	118	0.1%	*	*	*	*
MR/DD	2,464	1.0%	2,153	1.8%	89	0.7%	222	0.2%
Mentally ill/Severely emotionally disturbed	*	*	*	*	*	*	*	*
Technology-dependent/medically fragile	*	*	*	*	*	*	*	*
Never enrolled in a 1915c waiver during the year	234,215	94.4%	118,113	96.5%	11,251	94.6%	104,851	92.2%
Individuals Linked to Both Medicare and Medicaid in Given Year	154,643		39,944		4,445		110,254	
Average months of Medicare enrollment	10.89		11.39		11.48		10.69	
Average months of Medicaid enrollment	11.71		11.67		11.69		11.73	
Average months of both Medicare & Medicaid enrollment	11.45		11.20		11.36		11.55	
Proportion enrolled in Medicaid & Medicare during entire year	140,746	91.0%	34,826	87.2%	3,996	89.9%	101,924	92.4%
Medicare and Medicaid Eligibility Status								
QMB only	2,111	1.4%	1,185	3.0%	133	3.0%	793	0.7%
QMB plus	128,035	82.8%	31,349	78.5%	3,445	77.5%	93,241	84.6%
SLMB only	636	0.4%	382	1.0%	43	1.0%	211	0.2%
SLMB Plus	496	0.3%	258	0.6%	25	0.6%	213	0.2%
Other dual	22,719	14.7%	6,396	16.0%	769	17.3%	15,554	14.1%
Unknown	*	*	*	*	*	*	*	*
NA	637	0.4%	370	0.9%	29	0.7%	238	0.2%
* Cell sizes of less than 11 are not displayed.								

Objective D. Compare Medicare and Medicaid Cost and Utilization for HUD-Assisted Medicare Beneficiaries and Unassisted Beneficiaries in the Community in the 12 Study Jurisdictions

TABLE D-D1. Final 2008 Samples for Utilization and Cost Analysis					
	HUD-Assisted Beneficiaries (full year)	HUD-Assisted Beneficiaries (partial year)	Total HUD-Assisted Beneficiaries	Unassisted Beneficiaries in the Community	Total
Exclusion Criteria					
All Medicare Beneficiaries	362,162	45,460	407,622	5,345,040	5,752,662
Medicare benes enrolled in A&B for entire 12 month period or up until death	326,707	36,450	363,157	4,435,917	4,799,074
No managed care/HMO (Medicare FFS only)	232,630	26,807	259,437	3,302,595	3,562,032
Subgroup Sample Sizes					
Subgroup A: Medicare-Medicaid benes, no SNF or NF days	162,010	15,046	177,056	446,751	623,807
Subgroup A1: Age 65+	104,416	7,629	112,045	249,490	361,535
Subgroup B: Medicare-Medicaid benes with >0 and <365 SNF/NF days	12,684	3,875	16,559	86,626	103,185
Subgroup C: Medicare only, 65+	45,566	5,406	50,972	2,453,763	2,504,735
Subgroup C1: Medicare only, 65+, No SNF days	42,286	4,520	46,806	2,318,394	2,365,200
			92%	94%	

TABLE D-D2. Final 2008 Samples Limited to Individuals with Medicaid Fee-for-Service (FFS) -- No Managed Care					
	2008				
	HUD-Assisted Beneficiaries (full year)	HUD-Assisted Beneficiaries (partial year)	Total HUD-Assisted Beneficiaries	Unassisted Beneficiaries in the Community	Total
Subgroup A: Medicare-Medicaid benes, no SNF or NF days	153,514	14,126	167,640	405,908	573,548
Subgroup A1: Age 65+	99,568	7,196	106,764	227,186	333,950
Subgroup B: Medicare-Medicaid benes with >0 and <365 SNF/NF days	11,620	3,103	14,723	64,631	79,354

Sub-group A: Medicare-Medicaid Enrollees (MMEs), with No Skilled Nursing Facility (SNF) or Nursing Facility (NF) Use in 2008

TABLE D-D.A1. Demographic and Medicare Health Insurance Characteristics of HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries, 2008												
	HUD-Assisted Beneficiaries (full year) (N=162,010)		HUD-Assisted Beneficiaries (partial year) (N=15,046)		Total HUD-Assisted Beneficiaries (N=177,056)		Unassisted Beneficiaries in the Community (N=446,751)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Demographic Characteristics												
Gender									<0.0001	<0.0001	<0.0001	<0.0001
Male	53,470	33.0%	5,735	38.1%	59,205	33.4%	185,705	41.6%				
Female	108,540	67.0%	9,311	61.9%	117,851	66.6%	261,046	58.4%				
Race (based on RTI variable)									<0.0001	<0.0001	<0.0001	<0.0001
Non-Hispanic White	72,065	44.5%	6,778	45.0%	78,843	44.5%	225,417	50.5%				
Hispanic	33,686	20.8%	2,782	18.5%	36,468	20.6%	77,647	17.4%				
Black	37,254	23.0%	4,037	26.8%	41,291	23.3%	79,703	17.8%				
Asian/Pacific Islander	15,104	9.3%	1,094	7.3%	16,198	9.1%	52,451	11.7%				
American Indian/Alaska Native	219	0.1%	26	0.2%	245	0.1%	911	0.2%				
Other	3,219	2.0%	302	2.0%	3,521	2.0%	9,430	2.1%				
Unknown	463	0.3%	27	0.2%	490	0.3%	1,192	0.3%				
Age Group									<0.0001	<0.0001	<0.0001	<0.0001
Under 18 years	14	0.0%	*	*	15	0.0%	82	0.0%				
18 to 44	17,574	10.8%	2,816	18.7%	20,390	11.5%	75,600	16.9%				
45 to 64	40,006	24.7%	4,600	30.6%	44,606	25.2%	121,579	27.2%				
65 to 74	47,017	29.0%	4,236	28.2%	51,253	28.9%	110,126	24.7%				
75 to 79	23,256	14.4%	1,472	9.8%	24,728	14.0%	50,505	11.3%				
80 to 84	18,664	11.5%	1,051	7.0%	19,715	11.1%	42,357	9.5%				
85+	15,479	9.6%	870	5.8%	16,349	9.2%	46,502	10.4%				
Geographic Area									<0.0001	<0.0001	<0.0001	<0.0001
Vermont	4,545	2.8%	558	3.7%	5,103	2.9%	18,684	4.2%				
New Haven-Milford	3,340	2.1%	1,191	7.9%	4,531	2.6%	10,092	2.3%				
Bridgeport-Stamford-Norwalk	3,123	1.9%	312	2.1%	3,435	1.9%	7,017	1.6%				
Milwaukee-Waukesha-West Allis	5,435	3.4%	779	5.2%	6,214	3.5%	22,310	5.0%				
San Francisco-Oakland-Fremont	18,645	11.5%	1,136	7.6%	19,781	11.2%	53,090	11.9%				
Boston-Cambridge-Quincy	29,951	18.5%	2,630	17.5%	32,581	18.4%	60,731	13.6%				
Durham-Chapel Hill	1,186	0.7%	170	1.1%	1,356	0.8%	4,770	1.1%				
Richmond	601	0.4%	110	0.7%	711	0.4%	6,000	1.3%				

	TABLE D-D.A1 (*continued*)											
	HUD-Assisted Beneficiaries (full year) (N=162,010)		HUD-Assisted Beneficiaries (partial year) (N=15,046)		Total HUD-Assisted Beneficiaries (N=177,056)		Unassisted Beneficiaries in the Community (N=446,751)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
New York-Northern New Jersey-Long Island	82,449	50.9%	6,202	41.2%	88,651	50.1%	214,840	48.1%				
Columbus	4,025	2.5%	691	4.6%	4,716	2.7%	13,987	3.1%				
Akron	2,230	1.4%	367	2.4%	2,597	1.5%	5,742	1.3%				
Cleveland	6,480	4.0%	900	6.0%	7,380	4.2%	19,868	4.4%				
Missing	*	*	*	*	*	*	9,620	2.2%				
Died during the year	1,115	0.7%	1,105	7.3%	2,220	1.3%	8,361	1.9%	<0.0001	<0.0001	<0.0001	<0.0001
Medicare Coverage Characteristics												
Original Reason for Entitlement									<0.0001	<0.0001	<0.0001	<0.0001
Old age and survivor's insurance	86,440	53.4%	6,262	41.6%	92,702	52.4%	212,154	47.5%				
Disability insurance benefits	73,507	45.4%	8,473	56.3%	81,980	46.3%	226,970	50.8%				
ESRD	790	0.5%	101	0.7%	891	0.5%	2,872	0.6%				
Disability Insurance and ESRD	1,273	0.8%	210	1.4%	1,483	0.8%	4,755	1.1%				
Current reason for entitlement									<0.0001	<0.0001	<0.0001	<0.0001
Old age and survivor's insurance	102,553	63.3%	7,531	50.1%	110,084	62.2%	245,204	54.9%				
Disability insurance benefits	57,608	35.6%	7,237	48.1%	64,845	36.6%	194,664	43.6%				
ESRD	850	0.5%	115	0.8%	965	0.5%	3,094	0.7%				
Disability Insurance and ESRD	999	0.6%	163	1.1%	1,162	0.7%	3,789	0.8%				
Medicare Part D coverage at any point during the year	160,720	99.2%	14,895	99.0%	175,615	99.2%	438,816	98.2%	<0.0001	<0.0001	<0.0001	<0.0001
Average months of Part D coverage (among those with Part D cov)	11.92		11.64		11.90		11.81		<0.0001	<0.0001	<0.0001	<0.0001
Proportion with Part D Coverage by Cost Share Group Code									<0.0001	<0.0001	<0.0001	<0.0001
Beneficiary deemed with 100% premium-subsidy and no copayment	2,562	1.6%	264	1.8%	2,826	1.6%	17,013	3.9%				
Beneficiary deemed with 100% premium-subsidy and low copayment	139,497	86.8%	12,369	83.0%	151,866	86.5%	348,889	79.5%				

	HUD-Assisted Beneficiaries (full year) (N=162,010)		HUD-Assisted Beneficiaries (partial year) (N=15,046)		Total HUD-Assisted Beneficiaries (N=177,056)		Unassisted Beneficiaries in the Community (N=446,751)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Beneficiary deemed with 100% premium-subsidy and high copayment	16,950	10.5%	2,013	13.5%	18,963	10.8%	62,340	14.2%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	394	0.2%	68	0.5%	462	0.3%	2,113	0.5%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy and 15% copayment	31	0.0%	*	*	34	0.0%	112	0.0%				
Beneficiary with LIS, 75% premium-subsidy and 15% copayment	53	0.0%	*	*	58	0.0%	193	0.0%				
Beneficiary with LIS, 50% premium-subsidy and 15% copayment	64	0.0%	*	*	69	0.0%	271	0.1%				
Beneficiary with LIS, 25% premium-subsidy and 15% copayment	49	0.0%	*	*	53	0.0%	195	0.0%				
No premium subsidy nor cost sharing	285	0.2%	32	0.2%	317	0.2%	2,409	0.5%				
Missing	835	0.5%	132	0.9%	967	0.6%	5,281	1.2%				
Medicaid Coverage Status												
Average months of Medicaid coverage (FFS or Managed care)	11.72		11.12		11.66		11.27		<0.0001	<0.0001	<0.0001	<0.0001
Proportion enrolled in Medicaid during entire year (FFS or Managed care)	151,842	93.7%	12,063	80.2%	163,905	92.6%	382,471	85.6%	<0.0001	<0.0001	<0.0001	<0.0001
In Medicaid managed care for at least one month	8,479	5.2%	913	6.1%	9,392	5.3%	40,546	9.1%	<0.0001	<0.0001	<0.0001	<0.0001

TABLE D-D.A1 (*continued*)

	TABLE D-D.A1 (*continued*)											
	HUD-Assisted Beneficiaries (full year) (N=162,010)		HUD-Assisted Beneficiaries (partial year) (N=15,046)		Total HUD-Assisted Beneficiaries (N=177,056)		Unassisted Beneficiaries in the Community (N=446,751)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Average months of Medicaid managed care (among those with managed care)	8.27		7.33		8.18		8.69		<0.0001	<0.0001	<0.0001	<0.0001
Medicaid Basis for Eligibility									<0.0001	<0.0001	<0.0001	<0.0001
Aged	79,561	49.1%	6,089	40.5%	85,650	48.4%	212,485	47.6%				
Blind/disabled	80,923	49.9%	8,680	57.7%	89,603	50.6%	227,892	51.0%				
Child	*	*	*	*	*	*	31	0.0%				
Adult	1,502	0.9%	267	1.8%	1,769	1.0%	6,026	1.3%				
Child of unemployed adult	*	*	*	*	*	*	*	*				
Unemployed adult	*	*	*	*	*	*	*	*				
Foster care child	*	*	*	*	*	*	*	*				
Covered under Breast and Cervical Cancer Prevention Act	*	*	*	*	*	*	16	0.0%				
Unknown	16	0.0%	*	*	23	0.0%	268	0.1%				
Missing	*	*	*	*	*	*	29	0.0%				
Medicaid Maintenance of Assistance									<0.0001	<0.0001	<0.0001	<0.0001
Receiving cash or eligible under section 1931 of the Act	100,292	61.9%	7,871	52.3%	108,163	61.1%	221,480	49.6%				
Medically needy	18,370	11.3%	1,684	11.2%	20,054	11.3%	64,675	14.5%				
Poverty related (includes children eligible under SCHIP expansion)	29,343	18.1%	3,439	22.9%	32,782	18.5%	98,468	22.0%				
Other	10,422	6.4%	1,652	11.0%	12,074	6.8%	41,710	9.3%				
Foster Care Child	*	*	*	*	*	*	*	*				
1115 Demonstration expansion eligible	3,564	2.2%	393	2.6%	3,957	2.2%	20,117	4.5%				
Unknown	16	0.0%	*	*	23	0.0%	268	0.1%				
Missing	*	*	*	*	*	*	29	0.0%				
Proportion with 1915c Waiver Status Code	13,939	8.6%	1,231	8.2%	15,170	8.6%	41,118	9.2%	<0.0001	<0.0001	<0.0001	<0.0001
Type of 1915c Waiver Status Code									<0.0001	<0.0001	<0.0001	<0.0001
Unknown--missing eligibility	16	0.0%	*	*	23	0.0%	268	0.1%				
Aged and disabled	7,196	4.4%	577	3.8%	7,773	4.4%	12,645	2.8%				
Aged	2,976	1.8%	297	2.0%	3,273	1.8%	3,757	0.8%				

	HUD-Assisted Beneficiaries (full year) (N=162,010)		HUD-Assisted Beneficiaries (partial year) (N=15,046)		Total HUD-Assisted Beneficiaries (N=177,056)		Unassisted Beneficiaries in the Community (N=446,751)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
TABLE D-D.A1 (continued)												
	N	%	N	%	N	%	N	%				
Disabled	428	0.3%	58	0.4%	486	0.3%	946	0.2%				
Brain injured	58	0.0%	*	*	61	0.0%	561	0.1%				
HIV-AIDS	126	0.1%	*	*	130	0.1%	261	0.1%				
MR/DD	3,154	1.9%	292	1.9%	3,446	1.9%	22,942	5.1%				
Mentally ill/Severely emotionally disturbed	*	*	*	*	*	*	*	*				
Technology-dependent/medically fragile	*	*	*	*	*	*	*	*				
Never enrolled in a 1915c waiver during the year	148,055	91.4%	13,808	91.8%	161,863	91.4%	405,365	90.7%				
Average Months of both Medicare & Medicaid Enrollment	11.69		11.06		11.63		11.22		<0.0001	<0.0001	<0.0001	<0.0001
Proportion Enrolled in Medicaid & Medicare During Entire Year	151,222	93.3%	12,000	79.8%	163,222	92.2%	380,037	85.1%	<0.0001	<0.0001	<0.0001	<0.0001
Medicare & Medicaid Eligibility Status									<0.0001	<0.0001	<0.0001	<0.0001
QMB only	5,377	3.3%	886	5.9%	6,263	3.5%	18,807	4.2%				
QMB plus	123,126	76.0%	10,453	69.5%	133,579	75.4%	286,049	64.0%				
SLMB only	4,917	3.0%	555	3.7%	5,472	3.1%	18,612	4.2%				
SLMB Plus	2,231	1.4%	283	1.9%	2,514	1.4%	7,280	1.6%				
Other dual	26,202	16.2%	2,823	18.8%	29,025	16.4%	114,929	25.7%				
Unknown	16	0.0%	*	*	23	0.0%	268	0.1%				
NA	141	0.1%	39	0.3%	180	0.1%	806	0.2%				
* Cell sizes of less than 11 are not displayed.												

TABLE D-D.A2. Prevalence of CCW Conditions Among HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries					
CCW Condition	Total HUD-Assisted Beneficiaries		Unassisted Beneficiaries in the Community		P-Value
	N	%	N	%	
Prevalence of Chronic Conditions					<0.0001
0 Conditions	19,022	10.7%	75,519	16.9%	
1 Condition	18,526	10.5%	59,827	13.4%	
2 Conditions	19,850	11.2%	58,407	13.1%	
3 Conditions	22,169	12.5%	58,461	13.1%	
4 Conditions	22,075	12.5%	53,155	11.9%	
5 or More Conditions	75,414	42.6%	141,382	31.6%	
Prevalence of Chronic Conditions by Category					
Cardiovascular	77,226	43.6%	160,603	35.9%	<0.0001
Cancer	10,920	6.2%	21,515	4.8%	<0.0001
Endocrine and Renal	83,307	47.1%	179,734	40.2%	<0.0001
Alzheimer's-related	18,206	10.3%	46,561	10.4%	0.1088
Depression	41,194	23.2%	85,196	19.1%	<0.0001
Musculoskeletal	70,015	39.5%	128,187	28.7%	<0.0001
Pulmonary	33,660	19.0%	67,928	15.2%	<0.0001
Opthalmic	51,161	28.9%	96,823	21.7%	<0.0001
Other	134,176	75.8%	299,149	66.9%	<0.0001

TABLE D-D.A3. Medicare Health Care Utilization per 1000 Member Months							
	HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
	Mean	SD	Median	Mean	SD	Median	
Total Admissions	35.4	94.4	0	35.23	99.25	0	0.5912
Acute stay admissions	31.39	86.67	0	29.61	87.38	0	<0.0001
Other inpatient admissions	4	28.67	0	5.62	36.92	0	<0.0001
Hospital Readmissions	5.49	39.26	0	5.47	41.47	0	0.8163
Medicare home health visits	450.44	2752.27	0	317.87	2303.14	0	<0.0001
Medicare hospice days	27.95	693.46	0	126.79	1754.93	0	<0.0001
Hospital Outpatient visits	896.07	2063.01	333.33	822.82	2179.92	250	<0.0001
Total emergency room visits (total)	80.26	216.39	0	77.85	209.05	0	<0.0001
Hospital outpatient ER visits	57.42	190.47	0	55.29	175.57	0	<0.0001
Hospital inpatient ER visits	22.84	69.9	0	22.57	72.89	0	0.1923
Physician office visits	1605.79	1877.55	1083.33	1356.05	1940.13	833.33	<0.0001
Ambulatory surgery center visits	12.03	85.28	0	8.51	59.64	0	<0.0001
Dialysis events	25.69	229.91	0	27.42	234.23	0	0.0098
Anesthesia events	27.8	84.41	0	24.56	84.33	0	<0.0001
Imaging events	467.35	654.78	250	385.9	646.42	166.67	<0.0001
Test events	1523.4	2284.72	666.67	1299.09	2121.31	500	<0.0001
Other procedures	1089.99	3168.87	166.67	625.6	2187.99	83.33	<0.0001
Durable medical equipment (DME)	351.86	743.07	0	270.44	695.6	0	<0.0001
Part B Drugs	261.44	680.9	83.33	217.56	629.95	0	<0.0001
Part D* Drugs	4846.77	3962.12	4083.33	4037.48	3610.16	3250	<0.0001
Any Use of Medicare Service During Year (% with any use)	N	%		N	%		p-Value
Total Admissions	38509	21.7%		93427	20.9%		<0.0001
Acute stay admissions	35966	20.3%		84464	18.9%		<0.0001
Other inpatient admissions	5210	2.9%		16792	3.8%		<0.0001
Hospital Readmissions	6504	3.7%		15762	3.5%		0.0058
Medicare home health	19651	11.1%		37983	8.5%		<0.0001
Medicare hospice	734	0.4%		4156	0.9%		<0.0001
Hospital Outpatient	135778	76.7%		315763	70.7%		<0.0001
Total emergency room	69994	39.5%		164650	36.9%		<0.0001
Hospital outpatient ER	56051	31.7%		130407	29.2%		<0.0001
Hospital inpatient ER	28942	16.3%		70215	15.7%		<0.0001
Physician office	164683	93.0%		398772	89.3%		<0.0001
Ambulatory surgery center	9764	5.5%		19923	4.5%		<0.0001
Dialysis	3519	2.0%		9542	2.1%		0.0003
Anesthesia	31909	18.0%		69273	15.5%		<0.0001
Imaging	130775	73.9%		293855	65.8%		<0.0001
Test	140238	79.2%		331172	74.1%		<0.0001
Other procedures	110295	62.3%		242306	54.2%		<0.0001
Durable medical equipment (DME)	73039	41.3%		141492	31.7%		<0.0001
Part B Drugs	92300	52.1%		213748	47.8%		<0.0001
Part D* Drugs	164600	93.7%		391597	87.7%		<0.0001

TABLE D-D.A3 (*continued*)							
	HUD-Assisted Beneficiaries			**Unassisted Beneficiaries in the Community**			**p-Value**
	N	**%**		**N**	**%**		
Limited to Those with Medicaid Fee-for-Service (FFS)--No Managed Care	167,640	95%		405,908	91%		
Medicaid Service Utilization per 1000 Member Months	**Mean**	**SD**	**Median**	**Mean**	**SD**	**Median**	**p-Value**
Personal Care services	3244.43	8680.31	0	1434.04	5868.36	0	<0.0001
Residential care	55.15	849.47	0	130.89	1607.23	0	<0.0001
DME	368.86	1330.65	0	238.73	1153.17	0	<0.0001
Other HCBS services (*private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice)	3081.62	8567.01	0	2311.06	7827.64	0	<0.0001
Any Use of Medicare Service During Year (% with any use)	**N**	**%**		**N**	**%**		**p-Value**
Personal Care services	35,858	21%		41,904	10%		<0.0001
Residential care	3,401	2%		12,430	3%		<0.0001
DME	76,918	46%		131,421	32%		<0.0001
Other HCBS services	64,469	38%		116,205	29%		<0.0001
* Limited to those who have Part D coverage for entire year or up until death.							

TABLE D-D.A4. Medicare and Beneficiary Health Care Costs							
Medicare Payment PMPM	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
($)	Mean	SD	Median	Mean	SD	Median	
Total Admissions PMPM	$375	$1,356	$0	$373	$1,408	$0	0.5962
Acute stay admission PMPM	$329	$1,248	$0	$311	$1,259	$0	<0.0001
Other inpatient admission PMPM	$46	$400	$0	$62	$495	$0	<0.0001
Medicare home health PMPM (Medicare only)	$52	$235	$0	$39	$203	$0	<0.0001
Medicare hospice PMPM (Medicare only)	$5	$122	$0	$20	$277	$0	<0.0001
Hospital Outpatient PMPM	$153	$519	$38	$142	$486	$24	<0.0001
Physician office PMPM	$100	$133	$62	$83	$138	$45	<0.0001
Ambulatory surgery center PMPM	$4	$26	$0	$3	$23	$0	<0.0001
Dialysis PMPM	$4	$32	$0	$4	$32	$0	0.0156
Anesthesia PMPM	$4	$11	$0	$3	$11	$0	<0.0001
Imaging PMPM	$31	$56	$8	$23	$46	$4	<0.0001
Test PMPM	$34	$64	$11	$26	$57	$8	<0.0001
Other procedures PMPM	$64	$158	$10	$43	$128	$3	<0.0001
Durable medical equipment (DME) PMPM	$29	$95	$0	$22	$92	$0	<0.0001
Part B Drugs PMPM	$23	$260	$0	$23	$642	$0	0.8782
Part D* Drugs PMPM	$398	$547	$243	$367	$570	$195	<0.0001
Total Medical and Rx PMPM (sum of all above)	$1,269	$2,043	$648	$1,161	$2,178	$508	<0.0001
Total Medical PMPM (sum of all above except part D PMPM)	$854	$1,832	$272	$783	$1,876	$184	<0.0001

Medicaid Service Utilization per 1000 Member Months	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
	N	%		N	%		
Limited to Those with Medicaid Fee-for-Service (FFS)--No Managed Care	167,640	95%		405,908	91%		
Medicaid Payment PMPM--Divide by Total Medicaid Months	Mean	SD	Median	Mean	SD	Median	p-Value
Total Medicaid payment amount	$1,057	$1,892	$193	$1,127	$2,667	$105	<0.0001
Fee-for-service Medicaid payment amount	$947	$1,844	$156	$1,044	$2,648	$83	<0.0001
Personal Care services	$392	$1,176	$0	$204	$902	$0	<0.0001
Residential care	$47	$474	$0	$165	$1,153	$0	<0.0001
DME	$22	$122	$0	$18	$128	$0	<0.0001
Other HCBS services (*private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice)	$254	$996	$0	$220	$919	$0	<0.0001
* Limited to those who have Part D coverage for entire year or up until death.							

Sub-group A1: Medicare-Medicaid Enrollees (MMEs), Age 65+, with No SNF or NF Use in 2008

TABLE D-D.A1.1. Demographic and Medicare Health Insurance Characteristics of HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries 2008												
	HUD-Assisted Beneficiaries (full year) (N=104,416)		HUD-Assisted Beneficiaries (partial year) (N=7,629)		Total HUD-Assisted Beneficiaries (N=112,045)		Unassisted Beneficiaries in the Community (N=249,490)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Demographic Characteristics												
Gender									<0.0001	0.0249	<0.0001	<0.0001
Male	30,479	29.2%	2,526	33.1%	33,005	29.5%	79,565	31.9%				
Female	73,937	70.8%	5,103	66.9%	79,040	70.5%	169,925	68.1%				
Race (based on RTI variable)									<0.0001	<0.0001	0.0008	<0.0001
Non-Hispanic White	46,343	44.4%	3,438	45.1%	49,781	44.4%	109,981	44.1%				
Hispanic	22,447	21.5%	1,501	19.7%	23,948	21.4%	50,563	20.3%				
Black	18,659	17.9%	1,457	19.1%	20,116	18.0%	35,837	14.4%				
Asian/Pacific Islander	13,959	13.4%	990	13.0%	14,949	13.3%	45,773	18.3%				
American Indian/Alaska Native	97	0.1%	10	0.1%	107	0.1%	418	0.2%				
Other	2,582	2.5%	214	2.8%	2,796	2.5%	6,289	2.5%				
Unknown	329	0.3%	19	0.2%	348	0.3%	629	0.3%				
Age Group									<0.0001	<0.0001	<0.0001	<0.0001
Under 18 years	*	*	*	*	*	*	*	*				
18 to 44	*	*	*	*	*	*	*	*				
45 to 64	*	*	*	*	*	*	*	*				
65 to 74	47,017	45.0%	4,236	55.5%	51,253	45.7%	110,126	44.1%				
75 to 79	23,256	22.3%	1,472	19.3%	24,728	22.1%	50,505	20.2%				
80 to 84	18,664	17.9%	1,051	13.8%	19,715	17.6%	42,357	17.0%				
85+	15,479	14.8%	870	11.4%	16,349	14.6%	46,502	18.6%				
Geographic Area									<0.0001	<0.0001	<0.0001	<0.0001
Vermont	2,362	2.3%	259	3.4%	2,621	2.3%	10,881	4.4%				
New Haven-Milford	1,871	1.8%	477	6.3%	2,348	2.1%	4,408	1.8%				
Bridgeport-Stamford-Norwalk	1,888	1.8%	135	1.8%	2,023	1.8%	3,541	1.4%				
Milwaukee-Waukesha-West Allis	3,206	3.1%	359	4.7%	3,565	3.2%	12,130	4.9%				
San Francisco-Oakland-Fremont	13,397	12.8%	747	9.8%	14,144	12.6%	32,726	13.1%				
Boston-Cambridge-Quincy	14,769	14.1%	933	12.2%	15,702	14.0%	25,419	10.2%				
Durham-Chapel Hill	428	0.4%	39	0.5%	467	0.4%	2,134	0.9%				
Richmond	263	0.3%	27	0.4%	290	0.3%	2,933	1.2%				

	TABLE D-D.A1.1 (*continued*)											
	HUD-Assisted Beneficiaries (full year) (N=104,416)		HUD-Assisted Beneficiaries (partial year) (N=7,629)		Total HUD-Assisted Beneficiaries (N=112,045)		Unassisted Beneficiaries in the Community (N=249,490)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
New York-Northern New Jersey-Long Island	60,310	57.8%	4,035	52.9%	64,345	57.4%	137,642	55.2%				
Columbus	1,672	1.6%	258	3.4%	1,930	1.7%	4,572	1.8%				
Akron	890	0.9%	89	1.2%	979	0.9%	1,930	0.8%				
Cleveland	3,360	3.2%	271	3.6%	3,631	3.2%	7,558	3.0%				
Missing	*	*	*	*	*	*	3,616	1.4%				
Died during the year	899	0.9%	820	10.7%	1,719	1.5%	6,456	2.6%	<0.0001	<0.0001	<0.0001	<0.0001
Medicare Coverage Characteristics												
Original Reason for Entitlement									**<0.0001**	**<0.0001**	**0.0013**	**<0.0001**
Old age and survivor's insurance	86,439	82.8%	6,262	82.1%	92,701	82.7%	212,132	85.0%				
Disability insurance benefits	17,701	17.0%	1,333	17.5%	19,034	17.0%	36,587	14.7%				
ESRD	149	0.1%	12	0.2%	161	0.1%	408	0.2%				
Disability Insurance and ESRD	127	0.1%	22	0.3%	149	0.1%	363	0.1%				
Current Reason for Entitlement									0.0138	<0.0001	<0.0001	0.1429
Old age and survivor's insurance	102,549	98.2%	7,530	98.7%	110,079	98.2%	245,192	98.3%				
Disability insurance benefits	1,572	1.5%	64	0.8%	1,636	1.5%	3,493	1.4%				
ESRD	256	0.2%	30	0.4%	286	0.3%	721	0.3%				
Disability Insurance and ESRD	39	0.0%	*	*	44	0.0%	84	0.0%				
Medicare Part D Coverage at Any Point During the Year	103,314	98.9%	7,510	98.4%	110,824	98.9%	242,664	97.3%	<0.0001	<0.0001	<0.0001	<0.0001
Average Months of Part D Coverage (among those with Part D cov)	11.94		11.51		11.91		11.80		<0.0001	<0.0001	<0.0001	<0.0001
Proportion with Part D Coverage by Cost Share Group Code									<0.0001	<0.0001	<0.0001	<0.0001
Beneficiary deemed with 100% premium-subsidy and no copayment	1,292	1.3%	117	1.6%	1,409	1.3%	6,802	2.8%				
Beneficiary deemed with 100% premium-subsidy and low copayment	91,550	88.6%	6,322	84.2%	97,872	88.3%	196,474	81.0%				

	HUD-Assisted Beneficiaries (full year) (N=104,416)		HUD-Assisted Beneficiaries (partial year) (N=7,629)		Total HUD-Assisted Beneficiaries (N=112,045)		Unassisted Beneficiaries in the Community (N=249,490)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Beneficiary deemed with 100% premium-subsidy and high copayment	9,467	9.2%	915	12.2%	10,382	9.4%	32,736	13.5%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	258	0.2%	39	0.5%	297	0.3%	1,230	0.5%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy and 15% copayment	27	0.0%	*	*	30	0.0%	90	0.0%				
Beneficiary with LIS, 75% premium-subsidy and 15% copayment	38	0.0%	*	*	40	0.0%	129	0.1%				
Beneficiary with LIS, 50% premium-subsidy and 15% copayment	48	0.0%	*	*	52	0.0%	200	0.1%				
Beneficiary with LIS, 25% premium-subsidy and 15% copayment	32	0.0%	*	*	34	0.0%	146	0.1%				
No premium subsidy nor cost sharing	235	0.2%	28	0.4%	263	0.2%	2,068	0.9%				
Missing	367	0.4%	78	1.0%	445	0.4%	2,789	1.1%				
Medicaid Coverage Status												
Average Months of Medicaid Coverage (FFS or Managed care)	11.76		11.05		11.71		11.33		<0.0001	<0.0001	<0.0001	<0.0001
Proportion Enrolled in Medicaid During Entire Year (FFS or Managed care)	98,987	94.8%	6,017	78.9%	105,004	93.7%	216,696	86.9%	<0.0001	<0.0001	<0.0001	<0.0001
In Medicaid Managed Care for at Least One Month	4,840	4.6%	431	5.6%	5,271	4.7%	22,122	8.9%	<0.0001	<0.0001	<0.0001	<0.0001

TABLE D-D.A1.1 (*continued*)

	HUD-Assisted Beneficiaries (full year) (N=104,416)		HUD-Assisted Beneficiaries (partial year) (N=7,629)		Total HUD-Assisted Beneficiaries (N=112,045)		Unassisted Beneficiaries in the Community (N=249,490)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Average Months of Medicaid Managed Care (among those with managed care)	8.55		7.79		8.48		8.89		<0.0001	<0.0001	0.0003	<0.0001
Medicaid Basis for Eligibility									<0.0001	<0.0001	<0.0001	<0.0001
Aged	79,550	76.2%	6,085	79.8%	85,635	76.4%	212,431	85.1%				
Blind/disabled	24,816	23.8%	1,533	20.1%	26,349	23.5%	36,636	14.7%				
Child	*	*	*	*	*	*	*	*				
Adult	41	0.0%	*	*	49	0.0%	234	0.1%				
Child of Unemployed Adult	*	*	*	*	*	*	*	*				
Unemployed Adult	*	*	*	*	*	*	*	*				
Foster Care Child	*	*	*	*	*	*	*	*				
Covered under Breast and Cervical Cancer Prevention Act	*	*	*	*	*	*	*	*				
Unknown	*	*	*	*	*	*	174	0.1%				
Missing	*	*	*	*	*	*	*	*				
Medicaid Maintenance of Assistance									<0.0001	<0.0001	<0.0001	<0.0001
Receiving cash or eligible under section 1931 of the Act	71,529	68.5%	4,554	59.7%	76,083	67.9%	136,914	54.9%				
Medically needy	10,584	10.1%	762	10.0%	11,346	10.1%	36,414	14.6%				
Poverty related (includes children eligible under S-CHIP expansion)	15,144	14.5%	1,353	17.7%	16,497	14.7%	46,345	18.6%				
Other	5,198	5.0%	742	9.7%	5,940	5.3%	16,739	6.7%				
Foster Care Child	*	*	*	*	*	*	*	*				
1115 Demonstration expansion eligible	1,953	1.9%	216	2.8%	2,169	1.9%	12,896	5.2%				
Unknown	*	*	*	*	*	*	174	0.1%				
Missing	*	*	*	*	*	*	*	*				
Proportion with 1915c Waiver Status Code	9,460	9.1%	788	10.3%	10,248	9.1%	15,886	6.4%	<0.0001	<0.0001	0.0003	<0.0001
Type of 1915c Waiver Status Code									<0.0001	<0.0001	0.0001	0.0001
Unknown--missing eligibility	*	*	*	*	*	*	174	0.1%				
Aged and disabled	6,241	6.0%	473	6.2%	6,714	6.0%	10,656	4.3%				
Aged	2,913	2.8%	292	3.8%	3,205	2.9%	3,660	1.5%				

	HUD-Assisted Beneficiaries (full year) (N=104,416)		HUD-Assisted Beneficiaries (partial year) (N=7,629)		Total HUD-Assisted Beneficiaries (N=112,045)		Unassisted Beneficiaries in the Community (N=249,490)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Disabled	11	0.0%	*	*	12	0.0%	19	0.0%				
Brain injured	*	*	*	*	*	*	22	0.0%				
HIV-AIDS	15	0.0%	*	*	17	0.0%	17	0.0%				
MR/DD	280	0.3%	20	0.3%	300	0.3%	1,511	0.6%				
Mentally ill/Severely emotionally disturbed	*	*	*	*	*	*	*	*				
Technology-dependent/medically fragile	*	*	*	*	*	*	*	*				
Never enrolled in a 1915c waiver during the year	94,948	90.9%	6,839	89.6%	101,787	90.8%	233,430	93.6%				
Average Months of both Medicare & Medicaid Enrollment	11.74		11.00		11.69		11.29		<0.0001	<0.0001	<0.0001	<0.0001
Proportion Enrolled in Medicaid & Medicare During Entire Year	98,797	94.6%	5,992	78.5%	104,789	93.5%	215,783	86.5%	<0.0001	<0.0001	<0.0001	<0.0001
Medicare & Medicaid Eligibility Status									<0.0001	<0.0001	<0.0001	<0.0001
QMB only	2,812	2.7%	326	4.3%	3,138	2.8%	8,829	3.5%				
QMB plus	81,667	78.2%	5,444	71.4%	87,111	77.7%	163,146	65.4%				
SLMB only	3,267	3.1%	300	3.9%	3,567	3.2%	11,540	4.6%				
SLMB Plus	1,194	1.1%	123	1.6%	1,317	1.2%	3,020	1.2%				
Other dual	15,403	14.8%	1,414	18.5%	16,817	15.0%	62,374	25.0%				
Unknown	*	*	*	*	*	*	174	0.1%				
NA	65	0.1%	20	0.3%	85	0.1%	407	0.2%				

TABLE D-D.A1.1 (*continued*)

* Cell sizes of less than 11 are not displayed.

TABLE D-D.A1.2. Prevalence of CCW Conditions Among HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries					
CCW Condition	HUD-Assisted MMEs		Unassisted MMEs in the Community		Total HUD vs. None
	N	%	N	%	
Prevalence of Chronic Conditions					<0.0001
0 Conditions	6,031	5.4%	24,404	9.8%	
1 Condition	6,571	5.9%	20,686	8.3%	
2 Conditions	9,765	8.7%	27,678	11.1%	
3 Conditions	13,398	12.0%	34,387	13.8%	
4 Conditions	15,210	13.6%	34,878	14.0%	
5 or More Conditions	61,070	54.5%	107,457	43.1%	
Prevalence of Chronic Conditions by Category					
Cardiovascular	62,012	55.3%	120,344	48.3%	<0.0001
Cancer	9,162	8.2%	17,269	6.9%	<0.0001
Endocrine and Renal	60,076	53.6%	118,124	47.4%	<0.0001
Alzheimer's-related	16,427	14.7%	39,691	15.9%	<0.0001
Depression	18,603	16.6%	28,774	11.5%	<0.0001
Musculoskeletal	55,129	49.2%	94,354	37.9%	<0.0001
Pulmonary	21,352	19.0%	39,209	15.7%	<0.0001
Opthalmic	42,910	38.3%	76,172	30.6%	<0.0001
Other	96,642	86.2%	196,465	78.8%	<0.0001

TABLE D-D.A1.3. Medicare Health Care Utilization per 1000 Member Months							
Medicare Services Annual Utilization per 1000 Member Months	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
	Mean	SD	Median	Mean	SD	Median	
Total Admissions	32.8	85.52	0	30.93	83.05	0	<0.0001
Acute stay admissions	31.39	82.08	0	29.38	79.16	0	<0.0001
Other inpatient admissions	1.41	13.98	0	1.56	15.2	0	0.0064
Hospital Readmissions	5.15	35.31	0	4.87	34.11	0	0.0238
Medicare home health visits	581.48	3158.27	0	445.46	2724.07	0	<0.0001
Medicare hospice days	36.93	791.19	0	208.13	2258.93	0	<0.0001
Hospital Outpatient visits	686.51	1607.06	250	590.49	1631.05	166.67	<0.0001
Total emergency room visits (total)	58.43	137.9	0	51.57	119.05	0	<0.0001
Hospital outpatient ER visits	36.55	108.59	0	30.61	86.91	0	<0.0001
Hospital inpatient ER visits	21.88	64.57	0	20.96	63.54	0	<0.0001
Physician office visits	1652.34	1811.57	1166.67	1307.9	1820	833.33	<0.0001
Ambulatory surgery center visits	14.48	95.11	0	10	56.76	0	<0.0001
Dialysis events	16.96	187.04	0	17.3	181.78	0	0.6564
Anesthesia events	27.81	73.6	0	23.73	70.9	0	<0.0001
Imaging events	510.5	659.82	333.33	420.07	650.69	250	<0.0001
Test events	1762.15	2384.11	916.67	1428.51	2127.43	666.67	<0.0001
Other procedures	1464.61	3748.74	250	821.56	2641.4	83.33	<0.0001
Durable medical equipment (DME)	369.16	714.71	0	301.43	692.36	0	<0.0001
Part B Drugs	296.11	718.58	166.67	241.84	638.52	83.33	<0.0001
Part D* Drugs	5080.11	3905.36	4333.33	4094.33	3514.21	3333.33	<0.0001
Any Use of Medicare Service During Year (% with any use)	N	%		N	%		p-Value
Total Admissions	23895	21%		50273	20%		<0.0001
Acute stay admissions	23611	21%		49473	20%		<0.0001
Other inpatient admissions	1452	1%		3492	1%		0.0138
Hospital Readmissions	4061	4%		8680	3%		0.0327
Medicare home health	15321	14%		28582	11%		<0.0001
Medicare hospice	623	1%		3655	1%		<0.0001
Hospital Outpatient	80932	72%		163161	65%		<0.0001
Total emergency room	38451	34%		78362	31%		<0.0001
Hospital outpatient ER	28087	25%		55191	22%		<0.0001
Hospital inpatient ER	18358	16%		38993	16%		<0.0001
Physician office	105588	94%		224435	90%		<0.0001
Ambulatory surgery center	7365	7%		13611	5%		<0.0001
Dialysis	1515	1%		3435	1%		0.596
Anesthesia	21263	19%		39849	16%		<0.0001
Imaging	87217	78%		173913	70%		<0.0001
Test	93508	83%		194128	78%		<0.0001
Other procedures	76573	68%		146429	59%		<0.0001
Durable medical equipment (DME)	51253	46%		91265	37%		<0.0001
Part B Drugs	65880	59%		135611	54%		<0.0001
Part D* Drugs	104910	94%		218252	87%		<0.0001

TABLE D-D.A1.3 (*continued*)							
	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
	N	%		N	%		
Limited to those with no Medicaid managed care	106,764	95%		227,186	91%		
Medicaid Service Utilization per 1000 Member Months	**Mean**	**SD**	**Median**	**Mean**	**SD**	**Median**	**p-Value**
Personal Care services	4512.37	10047.12	0	2149.11	7128.17	0	<0.0001
Residential care	38.99	682.95	0	63.68	1164.33	0	<0.0001
DME	380.04	946.18	83.33	227.71	746.9	0	<0.0001
Other HCBS services (*private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice)	3309.83	8321.71	0	1840.56	6675.4	0	<0.0001
Any Use of Medicaid Services During Year (% with any use)	**N**	**%**		**N**	**%**		**p-Value**
Personal Care services	30,186	28%		32,885	14%		<0.0001
Residential care	1,931	2%		2,696	1%		<0.0001
DME	53,927	51%		79,598	35%		<0.0001
Other HCBS services	43,929	41%		57,815	25%		<0.0001
* Limited to those who have Part D coverage for entire year or up until death.							

Medicare Payment PMPM ($)	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
TABLE D-D.A1.4. Medicare and Beneficiary Health Care Costs							
	Mean	SD	Median	Mean	SD	Median	
Total Admissions PMPM	$361	$1,326	$0	$349	$1,355	$0	0.0124
Acute stay admission PMPM	$336	$1,252	$0	$320	$1,237	$0	0.0002
Other inpatient admission PMPM	$25	$282	$0	$29	$385	$0	0.0005
Medicare home health PMPM (Medicare only)	$66	$267	$0	$54	$238	$0	<0.0001
Medicare hospice PMPM (Medicare only)	$7	$139	$0	$33	$353	$0	<0.0001
Hospital Outpatient PMPM	$121	$397	$29	$105	$370	$16	<0.0001
Physician office PMPM	$107	$134	$71	$85	$137	$49	<0.0001
Ambulatory surgery center PMPM	$5	$28	$0	$4	$22	$0	<0.0001
Dialysis PMPM	$3	$26	$0	$3	$26	$0	0.9825
Anesthesia PMPM	$4	$11	$0	$3	$10	$0	<0.0001
Imaging PMPM	$37	$61	$12	$27	$50	$7	<0.0001
Test PMPM	$39	$66	$15	$27	$49	$10	<0.0001
Other procedures PMPM	$79	$172	$18	$51	$141	$7	<0.0001
Durable medical equipment (DME) PMPM	$28	$77	$0	$22	$77	$0	<0.0001
Part B Drugs PMPM	$22	$235	$2	$19	$183	$1	<0.0001
Part D* Drugs PMPM	$349	$437	$238	$282	$398	$177	<0.0001
Total Medical and Rx PMPM (sum of all above)	$1,222	$1,924	$648	$1,054	$1,935	$463	<0.0001
Total Medical PMPM (sum of all above except part D PMPM)	$856	$1,749	$304	$764	$1,795	$196	<0.0001

TABLE D-D.A1.4 (continued)							
	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			p-Value
	N	%		N	%		
Limited to those with no Medicaid managed care	106,764	95%		227,186	91%		
Medicaid Payment PMPM--Divide by Total Medicaid Months	Mean	SD	Median	Mean	SD	Median	p-Value
Total Medicaid payment amount	$1,180	$1,938	$227	$895	$2,017	$70	<0.0001
Fee-for-service Medicaid payment amount	$1,035	$1,884	$169	$771	$1,961	$54	<0.0001
Personal Care services	$533	$1,336	$0	$305	$1,099	0	<0.0001
Residential care	$23	$246	$0	$40	$506	0	<0.0001
DME	$19	$77	$0	$14	$70	0	<0.0001
Other HCBS services (*private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice)	$295	$1,122	$0	$195	$976	0	<0.0001
* Limited to those who have Part D coverage for entire year or up until death.							

Sub-group B: Medicare-Medicaid Enrollees (MMEs), with >0 and <365 Days of SNF or NF Use in 2008

TABLE D-D.B1. Demographic and Medicare Health Insurance Characteristics of HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries 2008									
	HUD-Assisted Beneficiaries (full year) (N=12,684)		HUD-Assisted Beneficiaries (partial year) (N=3,875)		Unassisted Beneficiaries in the Community (N=86,626)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%	N	%	N	%			
Demographic Characteristics (available in Medicare data)									
Gender							<0.0001	<0.0001	0.3205
Male	3,497	27.6%	1,100	28.4%	28,275	32.7%			
Female	9,187	72.4%	2,775	71.6%	58,351	67.4%			
Race (based on RTI variable)							<0.0001	<0.0001	<0.0001
Non-Hispanic White	7,112	56.1%	2,424	62.6%	59,031	68.2%			
Hispanic	1,663	13.1%	385	9.9%	7,056	8.1%			
Black	2,942	23.2%	895	23.1%	15,804	18.3%			
Asian/Pacific Islander	622	4.9%	117	3.0%	3,499	4.0%			
American Indian/Alaska Native	13	0.1%	*	*	94	0.1%			
Other	270	2.1%	44	1.1%	912	1.1%			
Unknown	62	0.5%	*	*	230	0.3%			
Age Group							<0.0001	0.0009	<0.0001
Under 18 years	*	*	*	*	*	*			
18 to 44	242	1.9%	78	2.0%	1,639	1.9%			
45 to 64	1,692	13.3%	474	12.2%	10,468	12.1%			
65 to 74	2,966	23.4%	727	18.8%	14,217	16.4%			
75 to 79	2,339	18.4%	551	14.2%	10,678	12.3%			
80 to 84	2,577	20.3%	686	17.7%	15,170	17.5%			
85+	2,868	22.6%	1,359	35.1%	34,454	39.8%			
Geographic Area							<0.0001	<0.0001	<0.0001
Vermont	255	2.0%	130	3.4%	2,201	2.5%			
New Haven-Milford	333	2.6%	189	4.9%	3,143	3.6%			
Bridgeport-Stamford-Norwalk	254	2.0%	121	3.1%	2,018	2.3%			
Milwaukee-Waukesha-West Allis	347	2.7%	168	4.3%	2,966	3.4%			
San Francisco-Oakland-Fremont	852	6.7%	201	5.2%	6,149	7.1%			
Boston-Cambridge-Quincy	1,796	14.2%	626	16.2%	9,285	10.7%			
Durham-Chapel Hill	53	0.4%	33	0.9%	851	1.0%			
Richmond	18	0.1%	27	0.7%	1,012	1.2%			
New York-Northern New Jersey-Long Island	7,675	60.5%	1,736	44.8%	46,008	53.1%			
Columbus	329	2.6%	188	4.9%	3,143	3.6%			
Akron	197	1.6%	132	3.4%	1,597	1.8%			

	HUD-Assisted Beneficiaries (full year) (N=12,684)		HUD-Assisted Beneficiaries (partial year) (N=3,875)		Unassisted Beneficiaries in the Community (N=86,626)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	**%**	**N**	**%**	**N**	**%**			
Cleveland	575	4.5%	324	8.4%	6,420	7.4%			
Missing	*	*	*	*	1,833	2.1%			
Died During the Year	742	5.8%	1,042	26.9%	15,533	17.9%	<0.0001	<0.0001	<0.0001
Medicare Coverage Characteristics									
Original Reason for Entitlement							<0.0001	0.0020	0.1071
Old age and survivor's insurance	8,578	67.6%	2,674	69.0%	61,436	71.0%			
Disability insurance benefits	3,920	30.9%	1,139	29.4%	24,157	27.9%			
ESRD	67	0.5%	15	0.4%	386	0.4%			
Disability Insurance and ESRD	119	0.9%	47	1.2%	647	0.7%			
Current Reason for Entitlement							<0.0001	0.0036	0.0017
Old age and survivor's insurance	10,602	83.6%	3,303	85.2%	73,757	85.2%			
Disability insurance benefits	1,898	15.0%	508	13.1%	11,819	13.6%			
ESRD	97	0.8%	22	0.6%	531	0.6%			
Disability Insurance and ESRD	87	0.7%	42	1.1%	519	0.6%			
Medicare Part D Coverage at Any Point During the Year	12,548	98.9%	3,826	98.7%	84,930	98.1%	<0.0001	0.0031	0.2573
Average Months of Part D Coverage (among those with Part D cov)	11.73		10.69		11.00		<0.0001	<0.0001	<0.0001
Proportion with Part D Coverage by Cost Share Group Code							<0.0001	<0.0001	<0.0001
Beneficiary deemed with 100% premium-subsidy and no copayment	2,649	21.1%	1,633	42.7%	55,822	65.7%			
Beneficiary deemed with 100% premium-subsidy and low copayment	8,489	67.7%	1,537	40.2%	19,611	23.1%			
Beneficiary deemed with 100% premium-subsidy and high copayment	1,087	8.7%	296	7.7%	4,097	4.8%			
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	68	0.5%	51	1.3%	499	0.6%			
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy and 15% copayment	*	*	*	*	64	0.1%			
Beneficiary with LIS, 75% premium-subsidy and 15% copayment	*	*	*	*	77	0.1%			
Beneficiary with LIS, 50% premium-subsidy and 15% copayment	16	0.1%	11	0.3%	54	0.1%			

The title **TABLE D-D.B1 (*continued*)** spans the top of the table.

	TABLE D-D.B1 (*continued*)								
	HUD-Assisted Beneficiaries (full year) (N=12,684)		HUD-Assisted Beneficiaries (partial year) (N=3,875)		Unassisted Beneficiaries in the Community (N=86,626)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%	N	%	N	%			
Beneficiary with LIS, 25% premium-subsidy and 15% copayment	*	*	*	*	53	0.1%			
No premium subsidy nor cost sharing	15	0.1%	*	*	142	0.2%			
Missing	201	1.6%	268	7.0%	4,511	5.3%			
Medicaid Coverage Status									
Average Months of Medicaid Coverage (FFS or managed care)	11.40		9.97		10.41		<0.0001	<0.0001	<0.0001
Proportion Enrolled in Medicaid During Entire Year (FFS or managed care)	11,021	86.9%	2,117	54.6%	57,813	66.7%	<0.0001	<0.0001	<0.0001
In Medicaid Managed Care for at Least One Month	1,059	8.3%	769	19.8%	21,956	25.3%	<0.0001	<0.0001	<0.0001
Average Months of Medicaid Managed Care (among those with managed care)	7.87		6.74		8.29		0.0009	<0.0001	<0.0001
Medicaid Basis for Eligibility							<0.0001	0.4871	<0.0001
Aged	9,044	71.3%	3,108	80.2%	70,623	81.5%			
Blind/disabled	3,617	28.5%	760	19.6%	15,871	18.3%			
Child	*	*	*	*	*	*			
Adult	17	0.1%	*	*	91	0.1%			
Child of Unemployed Adult	*	*	*	*	*	*			
Unemployed Adult	*	*	*	*	*	*			
Foster Care Child	*	*	*	*	*	*			
Covered under Breast and Cervical Cancer Prevention Act	*	*	*	*	*	*			
Unknown	*	*	*	*	35	0.0%			
Missing	*	*	*	*	*	*			
Medicaid Maintenance of Assistance							<0.0001	<0.0001	<0.0001
Receiving cash or eligible under section 1931 of the Act	6,487	51.1%	986	25.4%	13,625	15.7%			
Medically needy	2,471	19.5%	764	19.7%	32,908	38.0%			
Poverty related (includes children eligible under S-CHIP expansion)	1,662	13.1%	530	13.7%	7,821	9.0%			
Other	1,889	14.9%	1,548	39.9%	30,950	35.7%			
Foster Care Child	*	*	*	*	*	*			
1115 demonstration expansion eligible	170	1.3%	44	1.1%	1,283	1.5%			
Unknown	*	*	*	*	35	0.0%			

	TABLE D-D.B1 (*continued*)								
	HUD-Assisted Beneficiaries (full year) (N=12,684)		HUD-Assisted Beneficiaries (partial year) (N=3,875)		Unassisted Beneficiaries in the Community (N=86,626)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%	N	%	N	%			
Missing	*	*	*	*	*	*			
Proportion with 1915c waiver status code	2,329	18.4%	704	18.2%	7,036	8.1%	<0.0001	<0.0001	0.7865
Type of 1915c Waiver Status Code							<0.0001	<0.0001	0.0441
Unknown--missing eligibility	*	*	*	*	35	0.0%			
Aged and disabled	1,383	10.9%	431	11.1%	4,321	5.0%			
Aged	756	6.0%	227	5.9%	1,678	1.9%			
Disabled	52	0.4%	25	0.6%	146	0.2%			
Brain injured	*	*	*	*	75	0.1%			
HIV-AIDS	11	0.1%	*	*	32	0.0%			
MR/DD	122	1.0%	18	0.5%	784	0.9%			
Mentally ill/Severely emotionally disturbed	*	*	*	*	*	*			
Technology-dependent/medically fragile	*	*	*	*	*	*			
Never enrolled in a 1915c waiver during the year	10,352	81.6%	3,168	81.8%	79,555	91.8%			
Average Months of Both Medicare & Medicaid Enrollment	11.36	0.1%	9.89	0.3%	10.24	0.0%	<0.0001	<0.0001	<0.0001
Proportion Enrolled in Medicaid & Medicare During Entire Year	10,965	86.4%	2,097	54.1%	56,863	65.6%	<0.0001	<0.0001	<0.0001
Medicare & Medicaid Eligibility Status							<0.0001	<0.0001	<0.0001
QMB only	231	1.8%	66	1.7%	894	1.0%			
QMB plus	8,954	70.6%	2,256	58.2%	36,675	42.3%			
SLMB only	281	2.2%	67	1.7%	909	1.0%			
SLMB Plus	389	3.1%	187	4.8%	2,902	3.4%			
Other dual	2,811	22.2%	1,281	33.1%	44,418	51.3%			
Unknown	*	*	*	*	35	0.0%			
NA	15	0.1%	15	0.4%	793	0.9%			
Average SNF days	30.51		44.57		30.86		0.2681	<0.0001	<0.0001
Average NF days	57.4		93.11		151.91		<0.0001	<0.0001	<0.0001
Average SNF stays	1.13		1.43		1		<0.0001	<0.0001	<0.0001
* Cell sizes of less than 11 are not displayed.									

TABLE D-D.B2. Prevalence of CCW Conditions Among HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries									
CCW Condition	HUD-Assisted Beneficiaries (full year)		HUD-Assisted Beneficiaries (partial year)		Unassisted Beneficiaries in the Community		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%	N	%	N	%			
Prevalence of Chronic Conditions							<0.0001	<0.0001	0.4779
0 Conditions	54	0.4%	16	0.4%	472	0.5%			
1 Condition	98	0.8%	27	0.7%	1166	1.3%			
2 Conditions	199	1.6%	75	1.9%	2347	2.7%			
3 Conditions	436	3.4%	126	3.3%	4406	5.1%			
4 Conditions	702	5.5%	193	5.0%	6778	7.8%			
5 or More Conditions	11195	88.3%	3438	88.7%	71457	82.5%			
Prevalence of Chronic Conditions by Category									
Cardiovascular	10358	81.7%	3215	83.0%	69218	79.9%	<0.0001	<0.0001	0.0596
Cancer	1545	12.2%	548	14.1%	8676	10.0%	<0.0001	<0.0001	0.0009
Endocrine and Renal	9461	74.6%	2880	74.3%	59832	69.1%	<0.0001	<0.0001	0.7701
Alzheimer's-related	5083	40.1%	2237	57.7%	58785	67.9%	<0.0001	<0.0001	<0.0001
Depression	5268	41.5%	1865	48.1%	36989	42.7%	0.0095	<0.0001	<0.0001
Musculoskeletal	8624	68.0%	2309	59.6%	43691	50.4%	<0.0001	<0.0001	<0.0001
Pulmonary	4795	37.8%	1548	39.9%	27964	32.3%	<0.0001	<0.0001	0.0171
Opthalmic	4747	37.4%	1192	30.8%	29989	34.6%	<0.0001	<0.0001	<0.0001
Other	12303	97.0%	3733	96.3%	80442	92.9%	<0.0001	<0.0001	0.0413

TABLE D-D.B3. Medicare Health Care Utilization per 1000 Member Months											
Medicare Services Annual Utilization per 1000 Member Months	HUD-Assisted Beneficiaries (full year)			HUD-Assisted Beneficiaries (partial year)			Unassisted Beneficiaries in the Community			Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median			
Total Admissions	191.12	201.61	166.67	234.26	218.67	166.67	161.64	188.73	83.33	<0.0001	<0.0001	<0.0001
Acute stay admissions	178.02	190.67	83.33	216.72	205.65	166.67	148.95	176.76	83.33	<0.0001	<0.0001	<0.0001
Other inpatient admissions	13.1	44.52	0	17.54	57.79	0	12.69	48.42	0	0.377	<0.0001	<0.0001
Hospital Readmissions	53.59	122.6	0	70.69	136.01	0	41.71	106.56	0	<0.0001	<0.0001	<0.0001
Medicare Skilled Nursing Facility (SNF) days	2583.19	2786.26	1666.67	4058.46	3515.16	3333.33	2717.57	3257.26	1416.67	<0.0001	<0.0001	<0.0001
Medicare Skilled Nursing Facility (SNF) stays	96.09	100.01	83.33	135.27	123.37	83.33	90.03	109.67	83.33	<0.0001	<0.0001	<0.0001
Medicare home health visits	2207.5	4764.78	333.33	1454.13	3515.17	0	783.79	2785.92	0	<0.0001	<0.0001	<0.0001
Medicare hospice days	98.85	1086.97	0	601.59	2778.44	0	782.59	3498.68	0	<0.0001	0.0015	<0.0001
Hospital Outpatient visits	1504.46	2828.44	500	2041.02	3253.52	833.33	1850.87	3162.88	666.67	<0.0001	0.0004	<0.0001
Total emergency room visits (total)	218.65	277.36	166.67	280.44	293.73	222.22	193.29	257.65	125	<0.0001	<0.0001	<0.0001
Hospital outpatient ER visits	84.17	179.39	0	98.72	198.81	0	70.25	168.65	0	<0.0001	<0.0001	<0.0001
Hospital inpatient ER visits	134.48	163.96	83.33	181.72	184.48	166.67	123.04	156.49	83.33	<0.0001	<0.0001	<0.0001
Physician office visits	4970.81	4732.24	3666.67	6036.06	5729.76	4272.73	4733.54	4860.06	3250	<0.0001	<0.0001	<0.0001
Ambulatory surgery center visits	12.74	84.06	0	7.13	48.46	0	5.14	50.23	0	<0.0001	0.0146	<0.0001
Dialysis events	108.07	585.11	0	124.47	650.27	0	81.31	501.78	0	<0.0001	<0.0001	0.1394
Anesthesia events	85.7	151.78	0	77.65	152.39	0	59.68	144.39	0	<0.0001	<0.0001	0.0035
Imaging events	1514.96	1404.6	1166.67	1713.88	1738.65	1250	1193.14	1373.51	833.33	<0.0001	<0.0001	<0.0001
Test events	2866.48	3091.72	1833.33	2689.74	2991.27	1714.29	2540.6	3115.87	1500	<0.0001	0.0035	0.0015
Other procedures	1975.76	4114.62	583.33	976.46	2317.45	428.57	785.82	1852.82	416.67	<0.0001	<0.0001	<0.0001
Durable medical equipment (DME)	774.5	1063.86	333.33	579.32	952.52	166.67	411.25	850.04	0	<0.0001	<0.0001	<0.0001
Part B Drugs	458.82	887.35	250	385.49	624.7	166.67	345.64	606.23	166.67	<0.0001	<0.0001	<0.0001
Part D* Drugs	6574.83	4191.01	5916.67	6372.83	4271.12	5750	6563.33	4229.44	5916.67	0.8978	0.0109	0.0148

Any Use of Medicare Service During Year (% with any use)	HUD-Assisted Beneficiaries (full year)			HUD-Assisted Beneficiaries (partial year)			Unassisted Beneficiaries in the Community			Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%		N	%		N	%				
Total Admissions	10,175	80%		3,347	86%		62,183	72%		<0.0001	<0.0001	<0.0001
Acute stay admissions	10,046	79%		3,277	85%		60,446	70%		<0.0001	<0.0001	<0.0001
Other inpatient admissions	1,409	11%		497	13%		8,352	10%		<0.0001	<0.0001	0.0023
Hospital Readmissions	3,813	30%		1,387	36%		20,376	24%		<0.0001	<0.0001	<0.0001
Medicare home health	6,726	53%		1,609	42%		19,921	23%		<0.0001	<0.0001	<0.0001
Medicare hospice	280	2%		451	12%		8,900	10%		<0.0001	0.0066	<0.0001
Hospital Outpatient	10,752	85%		3,487	90%		75,508	87%		<0.0001	<0.0001	<0.0001
Total emergency room	9,746	77%		3,383	87%		63,474	73%		<0.0001	<0.0001	<0.0001
Hospital outpatient ER	5,610	44%		1,928	50%		33,592	39%		<0.0001	<0.0001	<0.0001
Hospital inpatient ER	8,608	68%		3,063	79%		55,298	64%		<0.0001	<0.0001	<0.0001
Physician office	12,629	100%		3,870	100%		85,818	99%		<0.0001	<0.0001	0.005
Ambulatory surgery center	706	6%		141	4%		2,280	3%		<0.0001	<0.0001	<0.0001
Dialysis	706	6%		249	6%		3,692	4%		<0.0001	<0.0001	0.0453
Anesthesia	5,833	46%		1,442	37%		26,230	30%		<0.0001	<0.0001	<0.0001
Imaging	12,250	97%		3,730	96%		77,494	89%		<0.0001	<0.0001	0.324
Test	12,263	97%		3,738	96%		78,812	91%		<0.0001	<0.0001	0.4747
Other procedures	11,545	91%		3,493	90%		76,419	88%		<0.0001	0.0002	0.1301
Durable medical equipment (DME)	9,084	72%		2,191	57%		37,616	43%		<0.0001	<0.0001	<0.0001
Part B Drugs	9,469	75%		2,804	72%		60,094	69%		<0.0001	<0.0001	0.004
Part D* Drugs	12,020	96%		3,428	90%		76,211	90%		<0.0001	0.5049	0.0014

TABLE D-D.B3 (*continued*)

Any Use of Medicare Service During Year (% with any use)	HUD-Assisted Beneficiaries (full year)			HUD-Assisted Beneficiaries (partial year)			Unassisted Beneficiaries in the Community			Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%		N	%		N	%				
Limited to those with no Medicaid managed care	11,620	92%		3,103	80%		64,631	75%				
Medicaid Service Utilization per 1000 Member Months	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median			
Personal Care services	5222.88	9443.57	0	2190.98	6237.28	0	1078.9	4657.87	0	<0.0001	<0.0001	<0.0001
Residential care	75.61	1047.98	0	225.5	1784.33	0	203.33	1765.91	0	<0.0001	0.3818	<0.0001
DME	685.34	1306.46	250	518.96	1289.6	83.33	327.78	887.81	0	<0.0001	<0.0001	<0.0001
Other HCBS services (*private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice)	6705.76	10444.02	1916.67	4139.23	8454.95	888.89	3019.3	7735.14	416.67	<0.0001	<0.0001	<0.0001
Nursing facility days per member month	5094.47	8601.37	0	8624.17	10301.08	2916.67	13860.57	12766.88	14500	<0.0001	<0.0001	<0.0001
Other long-term days (excluding NF)	10.51	447.33	0	45.3	1221.11	0	90.85	1653.29	0	<0.0001	0.1164	0.0249
Any Use of Medicaid Service During Year (% with any use)	N	%		N	%		N	%				
Personal Care services	4,444	38%		715	23%		6,445	10%		<0.0001	<0.0001	<0.0001
Residential care	313	3%		144	5%		2,344	4%		<0.0001	0.0008	<0.0001
DME	7,814	67%		1,649	53%		26,897	42%		<0.0001	<0.0001	<0.0001
Other HCBS services	9,489	82%		2,425	78%		44,924	70%		<0.0001	<0.0001	<0.0001

TABLE D-D.B3 (continued)

* Limited to those who have Part D coverage for entire year or up until death.

TABLE D-D.B4. Medicare and Beneficiary Health Care Cost											
Medicare Payment PMPM ($)	**HUD-Assisted Beneficiaries (full year)**			**HUD-Assisted Beneficiaries (partial year)**			**Unassisted Beneficiaries in the Community**			**Assisted Full Year vs. Unassisted p-Value**	**Assisted Partial Year vs. Unassisted p-Value**	**Assisted Full Year vs. Assisted Partial Year p-Value**
	Mean	**SD**	**Median**	**Mean**	**SD**	**Median**	**Mean**	**SD**	**Median**			
Total Admissions PMPM	$2,527	$3,652	$1,331	$2,916	$4,361	$1,483	$2,027	$3,584	$858	<0.0001	<0.0001	<0.0001
Acute stay admission PMPM	$2,256	$3,351	$1,211	$2,601	$4,095	$1,310	$1,800	$3,278	$762	<0.0001	<0.0001	<0.0001
Other inpatient admission PMPM	$271	$1,037	$0	$316	$1,137	$0	$228	$1,034	$0	<0.0001	<0.0001	0.0176
Medicare Skilled Nursing Facility (SNF) PMPM	$1,059	$1,104	$779	$1,497	$1,336	$1,260	$991	$1,197	$587	<0.0001	<0.0001	<0.0001
Medicare home health PMPM (Medicare only)	$273	$423	$51	$192	$349	$0	$110	$294	$0	<0.0001	<0.0001	<0.0001
Medicare hospice PMPM (Medicare only)	$19	$193	$0	$111	$482	$0	$128	$555	$0	<0.0001	0.0684	<0.0001
Hospital Outpatient PMPM	$268	$619	$75	$297	$610	$107	$236	$545	$72	<0.0001	<0.0001	0.0116
Physician office PMPM	$362	$383	$254	$440	$472	$289	$329	$390	$213	<0.0001	<0.0001	<0.0001
Ambulatory surgery center PMPM	$5	$29	$0	$3	$20	$0	$2	$17	$0	<0.0001	0.0002	0.0006
Dialysis PMPM	$13	$60	$0	$13	$58	$0	$9	$51	$0	<0.0001	<0.0001	0.8861
Anesthesia PMPM	$15	$24	$0	$12	$25	$0	$9	$21	$0	<0.0001	<0.0001	<0.0001
Imaging PMPM	$62	$73	$39	$47	$55	$30	$33	$46	$18	<0.0001	<0.0001	<0.0001
Test PMPM	$57	$78	$29	$41	$56	$23	$34	$48	$19	<0.0001	<0.0001	<0.0001
Other procedures PMPM	$145	$214	$76	$96	$173	$33	$72	$150	$21	<0.0001	<0.0001	<0.0001
Durable medical equipment (DME) PMPM	$71	$154	$18	$58	$160	$7	$38	$128	$0	<0.0001	<0.0001	<0.0001
Part B Drugs PMPM	$34	$252	$4	$23	$110	$5	$21	$123	$5	<0.0001	0.3558	0.0096
Part D* Drugs PMPM	$485	$607	$339	$414	$468	$300	$435	$466	$320	<0.0001	0.0108	<0.0001
Total Medical & Rx PMPM (sum of all above)	$5,378	$4,906	$4,008	$6,134	$5,599	$4,653	$4,444	$4,806	$3,143	<0.0001	<0.0001	<0.0001
Total Medical PMPM (sum of all above except Part D PMPM)	$4,873	$4,827	$3,530	$5,724	$5,572	$4,244	$4,019	$4,768	$2,721	<0.0001	<0.0001	<0.0001

	TABLE D-D.B4 (*continued*)											
	HUD-Assisted Beneficiaries (full year)			HUD-Assisted Beneficiaries (partial year)			Unassisted Beneficiaries in the Community			Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value
	N	%		N	%		N	%				
Limited to those with no Medicaid managed care	11,620	92%		3,103	80%		64,631	75%				
Medicaid Payment PMPM-- Divide by Total Medicaid Months	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median			
Total Medicaid payment amount	2789.89	2763.94	2174.46	3053.57	2428.68	2733.7	4202.64	3244.14	4129.33	<0.0001	<0.0001	<0.0001
Fee-for-service Medicaid payment amount	2653.55	2783.66	1914.63	2947.46	2466.85	2595.14	4137.06	3278.99	4081.42	<0.0001	<0.0001	<0.0001
Personal care services	575.75	1174.36	0	218.14	651.21	0	138.39	645.69	0	<0.0001	<0.0001	<0.0001
Residential care	36.19	359.06	0	52.2	364.89	0	74.07	616.5	0	<0.0001	0.0597	0.0094
DME	42.68	132.08	5.25	39.67	139.2	1.75	29.53	114.8	0	<0.0001	<0.0001	0.0028
Other HCBS services (*private duty nursing, adult day care, home health, rehab, targeted case management, transportation, and hospice)	602.78	1490.43	89.08	299.18	906.21	34	256.62	896.23	18.5	<0.0001	<0.0001	<0.0001
Nursing facility	989.46	1772.4	192	1954.43	2269.35	1096.91	3305.68	3089.31	3156.83	<0.0001	<0.0001	<0.0001
Other long-term days	0.01	0.26	0	0	0	0	0.01	0.48	0	<0.0001	0.1164	0.0249

* Limited to those who have Part D coverage for entire year or up until death.

Sample C: Medicare Beneficiaries with No Medicaid Enrollment, Regardless of SNF Use in 2008

	HUD-Assisted Beneficiaries (full year) (N=45,566)		HUD-Assisted Beneficiaries (partial year) (N=5,406)		Total HUD-Assisted Beneficiaries (N=50,972)		Unassisted Beneficiaries in the Community (N=2,453,763)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
TABLE D-D.C1. Demographic and Medicare Health Insurance Characteristics of HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries 2008	N	%	N	%	N	%	N	%				
Demographic characteristics (available in Medicare data)												
Gender									<0.0001	<0.0001	<0.0001	<0.0001
Male	12,745	28.0%	1,672	30.9%	14,417	28.3%	1,046,136	42.6%				
Female	32,821	72.0%	3,734	69.1%	36,555	71.7%	1,407,627	57.4%				
Race (based on RTI variable)									<0.0001	<0.0001	<0.0001	<0.0001
Non-Hispanic White	29,655	65.1%	3,833	70.9%	33,488	65.7%	2,148,123	87.5%				
Hispanic	4,211	9.2%	371	6.9%	4,582	9.0%	77,104	3.1%				
Black	10,871	23.9%	1,108	20.5%	11,979	23.5%	160,116	6.5%				
Asian/Pacific Islander	529	1.2%	60	1.1%	589	1.2%	46,367	1.9%				
American Indian/Alaska Native	24	0.1%	*	*	28	0.1%	727	0.0%				
Other	235	0.5%	30	0.6%	265	0.5%	19,375	0.8%				
Unknown	41	0.1%	*	*	41	0.1%	1,951	0.1%				
Age Group									<0.0001	<0.0001	<0.0001	<0.0001
65 to 69	7,386	16.2%	1,081	20.0%	8,467	16.6%	539,614	22.0%				
70 to 74	8,742	19.2%	1,048	19.4%	9,790	19.2%	560,485	22.8%				
75 to 79	8,842	19.4%	1,002	18.5%	9,844	19.3%	490,659	20.0%				
80 to 84	9,395	20.6%	999	18.5%	10,394	20.4%	431,969	17.6%				
85+	11,201	24.6%	1,276	23.6%	12,477	24.5%	431,036	17.6%				
Geographic Area									<0.0001	<0.0001	<0.0001	<0.0001
Vermont	574	1.3%	114	2.1%	688	1.3%	55,962	2.3%				
New Haven-Milford	1,545	3.4%	297	5.5%	1,842	3.6%	67,397	2.7%				
Bridgeport-Stamford-Norwalk	1,187	2.6%	155	2.9%	1,342	2.6%	71,240	2.9%				
Milwaukee-Waukesha-West Allis	1,062	2.3%	201	3.7%	1,263	2.5%	108,716	4.4%				
San Francisco-Oakland-Fremont	1,262	2.8%	131	2.4%	1,393	2.7%	165,824	6.8%				
Boston-Cambridge-Quincy	9,746	21.4%	1,107	20.5%	10,853	21.3%	309,454	12.6%				
Durham-Chapel Hill	233	0.5%	40	0.7%	273	0.5%	31,851	1.3%				
Richmond	245	0.5%	45	0.8%	290	0.6%	71,697	2.9%				
New York-Northern New Jersey-Long Island	26,618	58.4%	2,763	51.1%	29,381	57.6%	1,194,284	48.7%				

	HUD-Assisted Beneficiaries (full year) (N=45,566)		HUD-Assisted Beneficiaries (partial year) (N=5,406)		Total HUD-Assisted Beneficiaries (N=50,972)		Unassisted Beneficiaries in the Community (N=2,453,763)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Columbus	975	2.1%	205	3.8%	1,180	2.3%	94,577	3.9%				
Akron	496	1.1%	87	1.6%	583	1.1%	48,037	2.0%				
Cleveland	1,623	3.6%	261	4.8%	1,884	3.7%	164,689	6.7%				
Missing	*	*	*	*	*	*	70,035	2.9%				
Died During the Year	450	1.0%	778	14.4%	1,228	2.4%	57,513	2.3%	<0.0001	<0.0001	<0.0001	<0.0001
Medicare Coverage Characteristics												
Original Reason for Entitlement									<0.0001	<0.0001	<0.0001	<0.0001
Old age and survivor's insurance	38,747	85.0%	4,665	86.3%	43,412	85.2%	2,306,856	94.0%				
Disability insurance benefits	6,754	14.8%	731	13.5%	7,485	14.7%	144,351	5.9%				
ESRD	26	0.1%	*	*	32	0.1%	1,442	0.1%				
Disability Insurance and ESRD	39	0.1%	*	*	43	0.1%	1,114	0.0%				
Current Reason for Entitlement									<0.0001	0.0613	<0.0001	<0.0001
Old age and survivor's insurance	44,925	98.6%	5,367	99.3%	50,292	98.7%	2,435,998	99.3%				
Disability insurance benefits	569	1.2%	29	0.5%	598	1.2%	15,364	0.6%				
ESRD	63	0.1%	*	*	73	0.1%	2,122	0.1%				
Disability Insurance and ESRD	*	*	*	*	*	*	279	0.0%				
Medicare Part D Coverage at Any Point During the Year	25,421	55.8%	2,824	52.2%	28,245	55.4%	922,021	37.6%	<0.0001	<0.0001	<0.0001	<0.0001
Average Months of Part D Coverage (among those with Part D cov)	11.79		11.15		11.72		11.75		<0.0001	<0.0001	<0.0001	0.0011
Proportion with Part D Coverage by Cost Share Group Code									<0.0001	<0.0001	<0.0001	<0.0001
Beneficiary deemed with 100% premium-subsidy and no copayment	13	0.1%	*	*	21	0.1%	340	0.0%				
Beneficiary deemed with 100% premium-subsidy and low copayment	329	1.3%	55	1.9%	384	1.4%	2,395	0.3%				

TABLE D-D.C1 (*continued*)

	TABLE D-D.C1 (*continued*)											
	HUD-Assisted Beneficiaries (full year) (N=45,566)		HUD-Assisted Beneficiaries (partial year) (N=5,406)		Total HUD-Assisted Beneficiaries (N=50,972)		Unassisted Beneficiaries in the Community (N=2,453,763)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Beneficiary deemed with 100% premium-subsidy and high copayment	461	1.8%	40	1.4%	501	1.8%	3,153	0.3%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	4,885	19.2%	469	16.6%	5,354	19.0%	34,165	3.7%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy and 15% copayment	520	2.0%	59	2.1%	579	2.0%	4,212	0.5%				
Beneficiary with LIS, 75% premium-subsidy and 15% copayment	732	2.9%	63	2.2%	795	2.8%	3,665	0.4%				
Beneficiary with LIS, 50% premium-subsidy and 15% copayment	700	2.8%	43	1.5%	743	2.6%	3,507	0.4%				
Beneficiary with LIS, 25% premium-subsidy and 15% copayment	535	2.1%	44	1.6%	579	2.0%	2,971	0.3%				
No premium subsidy nor cost sharing	16,265	64.0%	1,602	56.7%	17,867	63.3%	818,191	88.7%				
Missing	981	3.9%	441	15.6%	1,422	5.0%	49,422	5.4%				
* Cell sizes of less than 11 are not displayed.												

TABLE D-D.C2. Prevalence of CCW Conditions Among HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries					
CCW Condition	Total HUD-Assisted Beneficiaries		Unassisted Beneficiaries in the Community		Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	
Prevalence of Chronic Conditions					<0.0001
0 Conditions	6,625	13.0%	300,020	12.2%	
1 Condition	3,985	7.8%	250,430	10.2%	
2 Conditions	5,293	10.4%	314,219	12.8%	
3 Conditions	6,603	13.0%	362,624	14.8%	
4 Conditions	6,931	13.6%	348,247	14.2%	
5 or More Conditions	21,535	42.2%	878,223	35.8%	
Prevalence of Chronic Conditions by Category					
Cardiovascular	24,058	47.2%	1,061,551	43.3%	<0.0001
Cancer	4,853	9.5%	263,760	10.7%	<0.0001
Endocrine and Renal	22,257	43.7%	891,227	36.3%	<0.0001
Alzheimer's-related	4,935	9.7%	234,617	9.6%	0.3695
Depression	5,281	10.4%	213,345	8.7%	<0.0001
Musculoskeletal	18,212	35.7%	808,818	33.0%	<0.0001
Pulmonary	8,392	16.5%	291,710	11.9%	<0.0001
Opthalmic	16,473	32.3%	891,809	36.3%	<0.0001
Other	39,127	76.8%	1,828,469	74.5%	<0.0001

TABLE D-D.C3. Medicare Health Care Utilization per 1000 Member Months						
Medicare Services Annual Utilization per 1000 Member Months	Total HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	Mean	SD	Median	Mean	SD	Median	
Total Admissions	37.43	91.53	0	28.91	78.68	0	<0.0001
Acute stay admissions	35.36	86.36	0	27.25	73.81	0	<0.0001
Other inpatient admissions	2.07	16.61	0	1.66	14.41	0	<0.0001
Hospital Readmissions	6.43	37.63	0	4.69	31.23	0	<0.0001
Medicare home health visits	368.54	1710.97	0	221.31	1321.7	0	<0.0001
Medicare hospice days	50.59	879.67	0	91.47	1285.45	0	<0.0001
Hospital Outpatient visits	490.01	1233.45	166.67	449.42	1150.54	166.67	<0.0001
Total emergency room visits (total)	57.01	116.67	0	39.56	92.82	0	<0.0001
Hospital outpatient ER visits	30.37	75.88	0	21.1	59.09	0	<0.0001
Hospital inpatient ER visits	26.64	71.65	0	18.46	58.57	0	<0.0001
Physician office visits	1430.19	2002.1	916.67	1331.89	1903.06	833.33	<0.0001
Ambulatory surgery center visits	12.63	57.77	0	15.9	64.73	0	<0.0001
Dialysis events	10.07	136	0	6.91	122.21	0	<0.0001
Anesthesia events	31.35	83.99	0	33.05	84.17	0	<0.0001
Imaging events	471.2	696	250	447.59	671.91	250	<0.0001
Test events	1427.72	2001.96	750	1474.86	2011.49	833.33	<0.0001
Other procedures	566.22	1493.82	166.67	667.79	1654.15	166.67	<0.0001
Durable medical equipment (DME)	204.33	514.42	0	159.36	473.4	0	<0.0001
Part B Drugs	217.97	549.05	83.33	251.43	613.44	166.67	<0.0001
Part D* Drugs	3075.98	2489.13	2583.33	2590.61	2214.88	2083.33	<0.0001
Any Use of Medicare Service During Year (% with any use)	N	%		N	%		p-Value
Total Admissions	11,876	23%		467,059	19%		<0.0001
Acute stay admissions	11,740	23%		462,489	19%		<0.0001
Other inpatient admissions	992	2%		39,416	2%		<0.0001
Hospital Readmissions	2,340	5%		84,863	3%		<0.0001
Medicare home health	7,323	14%		230,862	9%		<0.0001
Medicare hospice	504	1%		32,012	1%		<0.0001
Hospital Outpatient	33,856	66%		1,605,649	65%		<0.0001
Total emergency room	17,448	34%		645,195	26%		<0.0001
Hospital outpatient ER	11,641	23%		429,523	18%		<0.0001
Hospital inpatient ER	9,705	19%		339,233	14%		<0.0001
Physician office	45,027	88%		2,253,638	92%		<0.0001
Ambulatory surgery center	3,734	7%		233,620	10%		<0.0001
Dialysis	419	1%		14,097	1%		<0.0001
Anesthesia	10,082	20%		527,054	21%		<0.0001
Imaging	36,067	71%		1,794,385	73%		<0.0001
Test	39,905	78%		2,025,523	83%		<0.0001
Other procedures	31,826	62%		1,663,036	68%		<0.0001
Durable medical equipment (DME)	14,953	29%		582,130	24%		<0.0001
Part B Drugs	28,358	56%		1,590,177	65%		<0.0001
Part D* Drugs	24,919	88%		836,932	91%		<0.0001

* Limited to those who have Part D coverage for entire year or up until death.

TABLE D-D.C4. Medicare and Beneficiary Health Care Costs							
Medicare Payment PMPM ($)	**HUD-Assisted Beneficiaries**			**Unassisted Beneficiaries in the Community**			**Total HUD-Assisted vs. Unassisted Beneficiaries p-Value**
	Mean	**SD**	**Median**	**Mean**	**SD**	**Median**	
Total Admissions PMPM	$379	$1,259	$0	$313	$1,199	$0	<0.0001
Acute stay admission PMPM	$343	$1,116	$0	$283	$1,074	$0	<0.0001
Other inpatient admission PMPM	$36	$346	$0	$30	$317	$0	<0.0001
Medicare home health PMPM (Medicare only)	$55	$189	$0	$38	$167	$0	<0.0001
Medicare hospice PMPM (Medicare only)	$10	$154	$0	$16	$210	$0	<0.0001
Hospital Outpatient PMPM	$91	$303	$15	$86	$311	$11	0.0007
Physician office PMPM	$96	$157	$53	$86	$146	$48	<0.0001
Ambulatory surgery center PMPM	$5	$22	$0	$6	$26	$0	<0.0001
Dialysis PMPM	$2	$19	$0	$1	$15	$0	<0.0001
Anesthesia PMPM	$4	$12	$0	$4	$12	$0	0.0007
Imaging PMPM	$26	$43	$9	$27	$47	$9	<0.0001
Test PMPM	$25	$41	$11	$27	$43	$14	<0.0001
Other procedures PMPM	$47	$114	$10	$55	$130	$14	<0.0001
Durable medical equipment (DME) PMPM	$16	$61	$0	$13	$55	$0	<0.0001
Part B Drugs PMPM	$21	$194	$2	$28	$220	$3	<0.0001
Part D* Drugs PMPM	$137	$297	$97	$105	$208	$84	<0.0001
Total Medical and Rx PMPM (sum of all above)	$953	$1,959	$282	$808	$1,830	$226	<0.0001
Total Medical PMPM (sum of all above except part D PMPM)	$859	$1,902	$197	$741	$1,778	$176	<0.0001

Sub-group C1: Medicare Beneficiaries with No Medicaid Enrollment, Age 65+, No SNF Use in 2008

TABLE D-D.C1.1. Demographic and Medicare Health Insurance Characteristics of HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries 2008											
	HUD-Assisted Beneficiaries (full year) (N=42,286)		HUD-Assisted Beneficiaries (partial year) (N=4,520)		Total HUD-Assisted Beneficiaries (N=46,806)		Unassisted Beneficiaries in the Community (N=2,318,394)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Demographic Characteristics (available in Medicare data)												
Gender									<0.0001	<0.0001	<0.0001	<0.0001
Male	11,986	28.3%	1,442	31.9%	13,428	28.7%	997,877	43.0%				
Female	30,300	71.7%	3,078	68.1%	33,378	71.3%	1,320,517	57.0%				
Race (based on RTI variable)									<0.0001	0.0043	<0.0001	<0.0001
Non-hispanic white	27,034	63.9%	3,081	68.2%	30,115	64.3%	2,023,130	87.3%				
Hispanic	4,108	9.7%	352	7.8%	4,460	9.5%	75,090	3.2%				
Black	10,341	24.5%	997	22.1%	11,338	24.2%	153,339	6.6%				
Asian/pacific Islander	514	1.2%	56	1.2%	570	1.2%	45,354	2.0%				
American Indian/Alaska Native	24	0.1%	*	*	28	0.1%	679	0.0%				
Other	228	0.5%	30	0.7%	258	0.6%	18,994	0.8%				
Unknown	37	0.1%	*	*	37	0.1%	1,808	0.1%				
Age Group									<0.0001	<0.0001	<0.0001	<0.0001
65 to 69	7,173	17.0%	1,034	22.9%	8,207	17.5%	531,472	22.9%				
70 to 74	8,376	19.8%	971	21.5%	9,347	20.0%	546,599	23.6%				
75 to 79	8,315	19.7%	877	19.4%	9,192	19.6%	468,478	20.2%				
80 to 84	8,618	20.4%	797	17.6%	9,415	20.1%	398,836	17.2%				
85+	9,804	23.2%	841	18.6%	10,645	22.7%	373,009	16.1%				
Geographic Area									<0.0001	<0.0001	<0.0001	<0.0001
Vermont	547	1.3%	98	2.2%	645	1.4%	53,954	2.3%				
New Haven-Milford	1,404	3.3%	260	5.8%	1,664	3.6%	62,465	2.7%				
Bridgeport-Stamford-Norwalk	1,087	2.6%	131	2.9%	1,218	2.6%	66,882	2.9%				
Milwaukee-Waukesha-West Allis	992	2.3%	174	3.8%	1,166	2.5%	102,795	4.4%				
San Francisco-Oakland-Fremont	1,214	2.9%	111	2.5%	1,325	2.8%	158,523	6.8%				
Boston-Cambridge-Quincy	8,826	20.9%	873	19.3%	9,699	20.7%	289,114	12.5%				
Durham-Chapel Hill	220	0.5%	36	0.8%	256	0.5%	30,585	1.3%				
Richmond	227	0.5%	40	0.9%	267	0.6%	69,316	3.0%				
New York-Northern New Jersey-Long Island	24,938	59.0%	2,331	51.6%	27,269	58.3%	1,132,747	48.9%				
Columbus	885	2.1%	170	3.8%	1,055	2.3%	89,072	3.8%				

	HUD-Assisted Beneficiaries (full year) (N=42,286)		HUD-Assisted Beneficiaries (partial year) (N=4,520)		Total HUD-Assisted Beneficiaries (N=46,806)		Unassisted Beneficiaries in the Community (N=2,318,394)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Akron	459	1.1%	73	1.6%	532	1.1%	45,169	1.9%				
Cleveland	1,487	3.5%	223	4.9%	1,710	3.7%	153,553	6.6%				
Missing	*	*	*	*	*	*	64,219	2.8%				
Died During the Year	277	0.7%	410	9.1%	687	1.5%	37,424	1.6%	<0.0001	<0.0001	<0.0001	<0.0001
Medicare Coverage Characteristics												
Original Reason for Entitlement									<0.0001	<0.0001	0.1714	<0.0001
Old age and survivor's insurance	35,941	85.0%	3,888	86.0%	39,829	85.1%	2,181,228	94.1%				
Disability insurance benefits	6,294	14.9%	627	13.9%	6,921	14.8%	134,856	5.8%				
ESRD	24	0.1%	*	*	28	0.1%	1,316	0.1%				
Disability Insurance and ESRD	27	0.1%	*	*	28	0.1%	994	0.0%				
Current Reason for Entitlement									<0.0001	0.8083	0.0015	<0.0001
Old age and survivor's insurance	41,674	98.6%	4,486	99.2%	46,160	98.6%	2,301,302	99.3%				
Disability insurance benefits	555	1.3%	29	0.6%	584	1.2%	14,960	0.6%				
ESRD	52	0.1%	*	*	57	0.1%	1,883	0.1%				
Disability Insurance and ESRD	*	*	*	*	*	*	249	0.0%				
Medicare Part D Coverage at Any Point During the Year	23,447	55.4%	2,335	51.7%	25,782	55.1%	866,629	37.4%	<0.0001	<0.0001	<0.0001	0.0031
Average Months of Part D Coverage (among those with Part D cov)	11.79		11.35		11.75		11.77		0.0223	<0.0001	<0.0001	<0.0001
Proportion with Part D Coverage by Cost Share Group Code									<0.0001	<0.0001	<0.0001	<0.0001
Beneficiary deemed with 100% premium-subsidy and no copayment	11	0.0%	*	*	17	0.1%	248	0.0%				
Beneficiary deemed with 100% premium-subsidy and low copayment	316	1.3%	51	2.2%	367	1.4%	2,263	0.3%				
Beneficiary deemed with 100% premium-subsidy and high copayment	438	1.9%	38	1.6%	476	1.8%	3,019	0.3%				

	TABLE D-D.C1.1 (*continued*)											
	HUD-Assisted Beneficiaries (full year) (N=42,286)		HUD-Assisted Beneficiaries (partial year) (N=4,520)		Total HUD-Assisted Beneficiaries (N=46,806)		Unassisted Beneficiaries in the Community (N=2,318,394)		Assisted Full Year vs. Unassisted p-Value	Assisted Partial Year vs. Unassisted p-Value	Assisted Full Year vs. Assisted Partial Year p-Value	Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	N	%	N	%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy	4,604	19.6%	419	17.9%	5,023	19.5%	32,425	3.7%				
Beneficiary with Low Income Subsidy (LIS), 100% premium-subsidy and 15% copayment	486	2.1%	42	1.8%	528	2.0%	3,917	0.5%				
Beneficiary with LIS, 75% premium-subsidy and 15% copayment	687	2.9%	53	2.3%	740	2.9%	3,411	0.4%				
Beneficiary with LIS, 50% premium-subsidy and 15% copayment	637	2.7%	37	1.6%	674	2.6%	3,268	0.4%				
Beneficiary with LIS, 25% premium-subsidy and 15% copayment	497	2.1%	41	1.8%	538	2.1%	2,750	0.3%				
No premium subsidy nor cost sharing	14,902	63.6%	1,377	59.0%	16,279	63.1%	774,363	89.4%				
Missing	869	3.7%	271	11.6%	1,140	4.4%	40,965	4.7%				
* Cell sizes of less than 11 are not displayed.												

CCW Condition	Total HUD-Assisted Beneficiaries		Unassisted Beneficiaries in the Community		Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	N	%	N	%	
Prevalence of Chronic Conditions					<0.0001
0 Conditions	6,624	14.2%	299,936	12.9%	
1 Condition	3,972	8.5%	249,962	10.8%	
2 Conditions	5,245	11.2%	312,462	13.5%	
3 Conditions	6,472	13.8%	358,219	15.5%	
4 Conditions	6,669	14.2%	339,586	14.6%	
5 or More Conditions	17,824	38.1%	758,229	32.7%	
Prevalence of Chronic Conditions by Category					
Cardiovascular	20,638	44.1%	952,061	41.1%	<0.0001
Cancer	4,105	8.8%	238,416	10.3%	<0.0001
Endocrine and Renal	19,313	41.3%	800,924	34.5%	<0.0001
Alzheimer's-related	3,543	7.6%	179,304	7.7%	0.1825
Depression	3,930	8.4%	167,119	7.2%	<0.0001
Musculoskeletal	15,494	33.1%	719,065	31.0%	<0.0001
Pulmonary	6,777	14.5%	246,619	10.6%	<0.0001
Opthalmic	15,098	32.3%	847,512	36.6%	<0.0001
Other	35,030	74.8%	1,696,319	73.2%	<0.0001

TABLE D-D.C1.2. Prevalence of CCW Conditions Among HUD-Assisted Beneficiaries vs. Unassisted Beneficiaries

TABLE D-D.C1.3. Medicare Health Care Utilization per 1000 Member Months							
Medicare Services Annual Utilization per 1000 Member Months	HUD-Assisted Beneficiaries			Unassisted Beneficiaries in the Community			Total HUD-Assisted vs. Unassisted Beneficiaries p-Value
	Mean	SD	Median	Mean	SD	Median	
Total Admissions	23	65.83	0	19.27	58.89	0	<0.0001
Acute stay admissions	21.69	62.11	0	18.17	55.28	0	<0.0001
Other inpatient admissions	1.31	13.45	0	1.09	11.52	0	<0.0001
Hospital Readmissions	2.69	23.42	0	2.29	20.59	0	<0.0001
Medicare home health visits	220.49	1433.71	0	135.96	1100.29	0	<0.0001
Medicare hospice days	36.49	778.4	0	77.55	1229.74	0	<0.0001
Hospital Outpatient visits	444.77	1140.2	166.67	409.47	1069.64	83.33	<0.0001
Total emergency room visits (total)	43.04	94.73	0	30.38	74.76	0	<0.0001
Hospital outpatient ER visits	27.21	71.16	0	18.83	54.53	0	<0.0001
Hospital inpatient ER visits	15.83	49.15	0	11.55	41.5	0	<0.0001
Physician office visits	1145.16	1406.1	833.33	1129.11	1378.64	750	0.0128
Ambulatory surgery center visits	12.65	57.14	0	16.01	64.45	0	<0.0001
Dialysis events	6.51	96.92	0	4.77	94.33	0	<0.0001
Anesthesia events	25.87	74.98	0	29.22	77.38	0	<0.0001
Imaging events	378.19	530.96	250	382.24	544.22	250	0.1145
Test events	1346.96	1938.25	666.67	1416.92	1952.61	833.33	<0.0001
Other procedures	527.23	1438.38	83.33	635.38	1616.68	166.67	<0.0001
Durable medical equipment (DME)	180.65	478.62	0	139.02	435.64	0	<0.0001
Part B Drugs	205.65	536.07	83.33	242.2	597.12	166.67	<0.0001
Part D* Drugs	2983.91	2461.09	2500	2495.97	2143.14	2000	<0.0001
Any Use of Medicare Service During Year (% with any use)	N	%		N	%		
Total Admissions	7,849	17%		336,509	15%		<0.0001
Acute stay admissions	7,730	17%		332,644	14%		<0.0001
Other inpatient admissions	588	1%		25,327	1%		<0.0001
Hospital Readmissions	1,005	2%		43,527	2%		<0.0001
Medicare home health	4,422	9%		145,974	6%		<0.0001
Medicare hospice	274	1%		21,742	1%		<0.0001
Hospital Outpatient	30,203	65%		1,485,549	64%		<0.0001
Total emergency room	13,768	29%		529,308	23%		<0.0001
Hospital outpatient ER	9,883	21%		374,634	16%		<0.0001
Hospital inpatient ER	6,272	13%		232,234	10%		<0.0001
Physician office	40,864	87%		2,118,416	91%		<0.0001
Ambulatory surgery center	3,440	7%		223,232	10%		<0.0001
Dialysis	285	1%		10,246	0%		<0.0001
Anesthesia	7,980	17%		455,298	20%		<0.0001
Imaging	31,952	68%		1,660,480	72%		<0.0001
Test	35,818	77%		1,893,014	82%		<0.0001
Other procedures	28,048	60%		1,537,448	66%		<0.0001

TABLE D-D.C1.3 (*continued*)							
Any Use of Medicare Service During Year (% with any use)	**HUD-Assisted Beneficiaries**			**Unassisted Beneficiaries in the Community**			**Total HUD-Assisted vs. Unassisted Beneficiaries p-Value**
	N	**%**		**N**	**%**		
Durable medical equipment (DME)	12,370	26%		496,468	21%		<0.0001
Part B Drugs	25,260	54%		1,484,609	64%		<0.0001
Part D* Drugs	22,604	88%		784,924	91%		<0.0001
* Limited to those who have Part D coverage for entire year or up until death.							

TABLE D-D.C1.4. Medicare and Beneficiary Health Care Costs							
Medicare Payment PMPM ($)	**HUD-Assisted Beneficiaries**			**Unassisted Beneficiaries in the Community**			**p-Value**
	Mean	**SD**	**Median**	**Mean**	**SD**	**Median**	
Total Admissions PMPM	$219	$875	$0	$199	$886	$0	<0.0001
Acute stay admission PMPM	$196	$760	$0	$181	$801	$0	<0.0001
Other inpatient admission PMPM	$22	$280	$0	$18	$229	$0	<0.0001
Medicare home health PMPM (Medicare only)	$32	$145	$0	$23	$130	$0	<0.0001
Medicare hospice PMPM (Medicare only)	$7	$135	$0	$13	$199	$0	<0.0001
Hospital Outpatient PMPM	$82	$283	$12	$80	$299	$10	0.1331
Physician office PMPM	$74	$105	$46	$71	$101	$45	<0.0001
Ambulatory surgery center PMPM	$5	$23	$0	$6	$26	$0	<0.0001
Dialysis PMPM	$1	$16	$0	$1	$13	$0	<0.0001
Anesthesia PMPM	$3	$10	$0	$4	$11	$0	<0.0001
Imaging PMPM	$24	$42	$7	$25	$46	$8	<0.0001
Test PMPM	$24	$40	$10	$27	$43	$13	<0.0001
Other procedures PMPM	$41	$106	$8	$50	$126	$12	<0.0001
Durable medical equipment (DME) PMPM	$14	$57	$0	$11	$49	$0	<0.0001
Part B Drugs PMPM	$20	$195	$1	$27	$218	$3	<0.0001
Part D* Drugs PMPM	$135	$303	$94	$102	$205	$81	<0.0001
Total Medical and Rx PMPM (sum of all above)	$617	$1,263	$240	$574	$1,284	$205	<0.0001
Total Medical PMPM (sum of all above except part D PMPM)	$525	$1,181	$163	$510	$1,218	$157	0.0057

Part D LIS Enrollment

TABLE D1. Proportion of Beneficiaries with Part D Coverage, Enrolled in LIS		
	HUD-Assisted	**Unassisted in the Community**
Subgroup A: Medicare-Medicaid benes, no SNF or NF days	99%	98%
Subgroup A1: Age 65+	99%	98%
Subgroup B: Medicare-Medicaid benes with >0 and <365 SNF/NF days	98%	95%
Subgroup C: Medicare only, 65+	32%	6%
Subgroup C1: Medicare only, 65+, No SNF days	32%	6%

DESIGN OF A DEMONSTRATION OF COORDINATED HOUSING, HEALTH AND LONG-TERM CARE SERVICES AND SUPPORTS FOR LOW INCOME OLDER ADULTS

Reports Available

Design of a Demonstration of Coordinated Housing, Health and Long-Term Care Services and Supports for Low-Income Older Adults

 HTML   http://aspe.hhs.gov/daltcp/reports/2011/lioaDemo.shtml
 PDF   http://aspe.hhs.gov/daltcp/reports/2011/lioaDemo.pdf

Picture of Housing and Health: Medicare and Medicaid Use Among Older Adults in HUD-Assisted Housing

 Executive Summary http://aspe.hhs.gov/daltcp/reports/2014/HUDpices.shtml
 HTML   http://aspe.hhs.gov/daltcp/reports/2014/HUDpic.shtml
 PDF   http://aspe.hhs.gov/daltcp/reports/2014/HUDpic.pdf

The "Value Added" of Linking Publicly Assisted Housing for Low-Income Older Adults with Enhanced Services: A Literature Syntheses and Environmental Scan

 Executive Summary http://aspe.hhs.gov/daltcp/reports/2012/ValueAddes.shtml
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