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Home Equity Conversion Mortgages and Long-Term Care

Mark Merlis

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Executive summary

Home Equity Conversion Mortgages and Long-Term Care

Mark Merlis

As the nation considers ways of meeting growing costs for long-term care services, there has been growing interest in the possibility that older people without other financial resources could draw on their home equity to help pay for their own care. One mechanism for doing so is a “reverse mortgage,” under which a lender advances money to an older person in return for a future claim on the home. Some older people with functional disabilities might be able to use proceeds from a reverse mortgage to meet costs for personal care, home modifications, or other assistance needed to remain in the home. Those not yet in need of assistance could use the funds to pay premiums for a private long-term care insurance policy.

This report provides an overview of how reverse mortgages work. Using data from the 2000 Health and Retirement Study, it estimates how many older households could qualify for a reverse mortgage, how much money they could borrow, and how much help these might provide in financing long-term care directly or in paying for long-term care insurance premiums.

The results indicate that many middle-income households without other resources might benefit from using reverse mortgages to help pay for needed home care. However, it is not likely that this mechanism will play a major role in financing long-term care. In particular, it cannot be expected that reverse mortgages will help to solve the long-range financing problem for Medicaid. Reverse mortgages could make private long-term care insurance more affordable for many households. But those whose home is their largest asset are unlikely to be motivated to mortgage it for this purpose, because they may have other financial needs and because use of a loan to buy insurance is, under current market structures, very costly relative to the benefits received.

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How Reverse Mortgages Work

The most common reverse mortgages are Home Equity Conversion Mortgages (HECMs), which are offered by banks and insured by the Federal Housing Administration. Under an HECM loan, a lender advances money to a homeowner, in the form of a series of fixed monthly payments, a line of credit on which the borrower may draw, or a combination. The borrower is not required to make any payments on the loan so long as he or she remains in the house. The lender collects the loan balance—which includes the accrued interest and other charges as well as the amounts paid out—when the house is sold by the borrower or by his or her estate.

An HECM is available only to homeowners aged 62 or older. If a house is jointly owned, all owners must be 62 or older. Maximum initial loan amounts are subject to two basic limits. First, the amount of home equity that can be borrowed against is subject to a county-level limit based on median local home values. Second, the homeowner can borrow only a fixed percentage of the allowed home equity; this percentage is based on the borrower's age at the time of application and the expected interest rate for the loan. For example, given an expected future interest rate of 5.5 percent, 62-year-olds could borrow up to 63 percent of their home's value, while 80-year-olds could borrow 78 percent. (For couples, the age of the younger member is used in all calculations.)

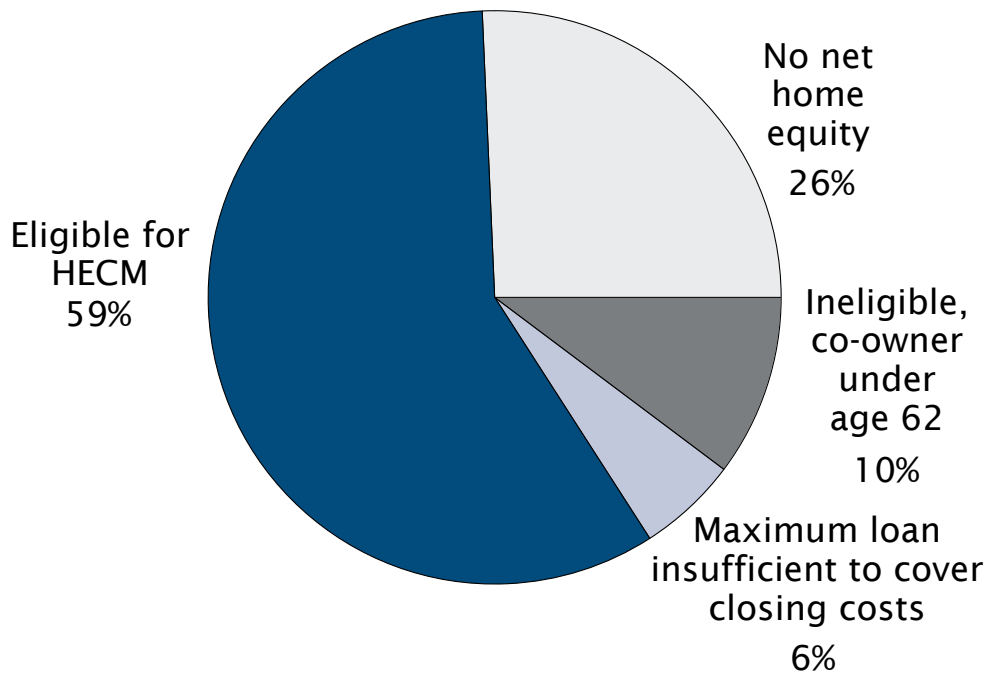
Closing costs for HECMs, including an upfront mortgage insurance premium, are typically financed through the loan. In addition, loan proceeds must be used first to pay off any existing mortgage and to make needed repairs, and there is a set-aside for future bank service charges. For many older homeowners, these charges can reduce the available loan to zero.

The combination of upfront charges and compounding interest on the loan means that the final loan balance payable when the home is sold may be considerably more than the borrower has actually received. For example, a 70-year-old borrower with median home equity for that age (\$80,000) might opt for a loan paying about \$380 per month over his or her life expectancy of 15 years. At the end of that period, he or she would have received a total of \$68,392 and would owe \$103,523—\$1.51 for every \$1.00 received. The ratio of the loan balance to actual proceeds is even higher for loans of shorter duration.

Using an HECM to Pay Directly for Long-Term Care

As Figure 1 shows, there are 24 million older households—defined in this report as those headed by a single adult aged 62 or older or a couple both of whom are 62 or older. Of these, 74 percent have at least some net home equity. However, about one-fifth of the households with home equity—or 16 percent of all older households—are ineligible for an HECM, either because another owner is on the deed or because the available loan is too small to finance closing and

Figure 1
Eligibility of Older Households for an HECM, 2000



Note: Based on 24.2 million households. Because of rounding, components do not sum to 100%.
 SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

other costs. This leaves 14.2 million households, or 59 percent of older households, eligible for an HECM.

Not all of these households are likely to use an HECM if they should find themselves facing high long-term care costs. On the one hand, 1.6 million potential borrowers have very low incomes and few financial resources other than their home. These households are already Medicaid beneficiaries or might rapidly qualify for Medicaid if they required expensive care and therefore would have little reason to borrow. (Nor, as will be discussed below, would their use of an HECM necessarily save money for Medicaid.) At the other extreme are households whose financial resources are already sufficient to cover their likely long-term care needs. The 3.8 million households in the top quartile by financial assets, those with \$275,000 or more, are treated here as unlikely candidates for an HECM. This leaves a net "target" population of 8.8 million households who might use an HECM for long-term care.

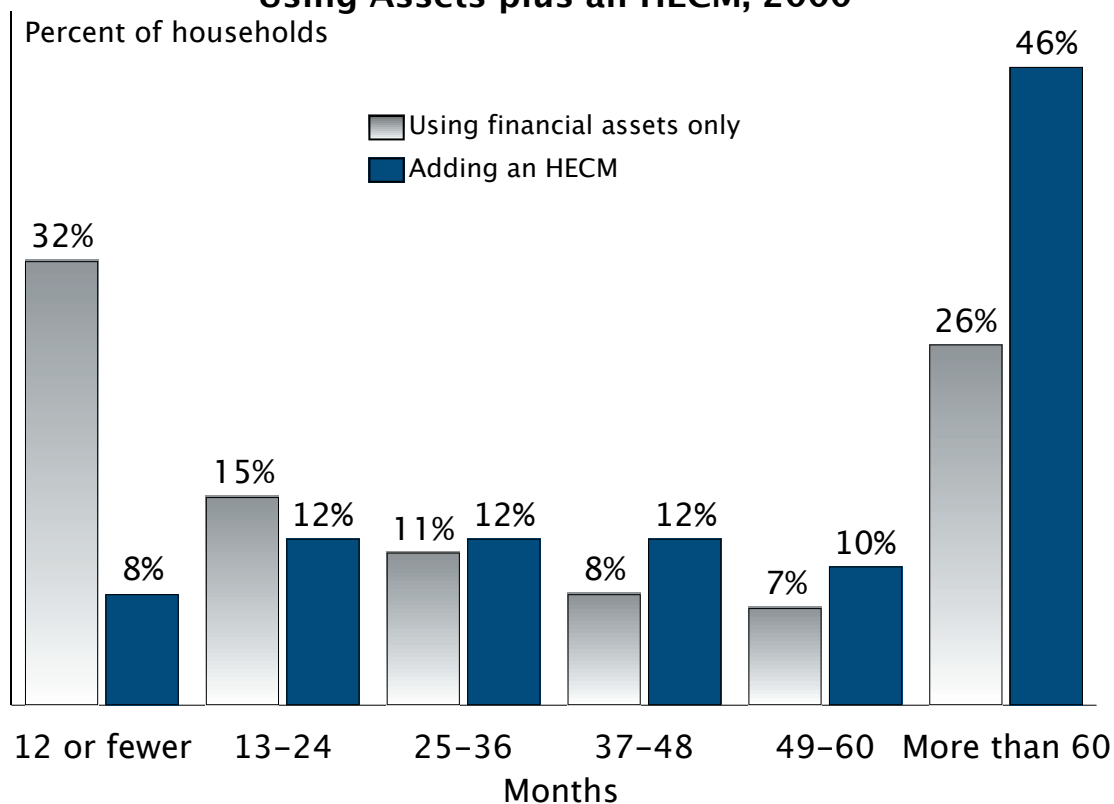
These 8.8 million target households would have qualified for a median loan of about \$47,000 in 2000. More than three-quarters could have received \$25,000 or more, and one-quarter could have received \$75,000 or more. Some of these households have other resources that would let them cover their own

long-term care, but for many an HECM loan could make a real difference in how long they could afford to receive care at home.

Figure 2 shows how long target households could afford to pay for home care costing \$2,000 per month. Using only their non-housing assets, about one-third of these households could afford to pay only for 12 months or less. When an HECM loan is added in, 92 percent of these households could afford to pay for more than a year of care. Using an HECM, 46 percent could afford to pay for more than five years of care, compared to 26 percent using non-housing assets alone.

Much of the current interest in promoting the use of reverse mortgages as a source of long-term care financing stems from the hope that Medicaid long-term care expenditures might be reduced. While it is certainly possible that HECMs could help people postpone the day on which they will need Medicaid, at least two factors limit the likely savings to the Medicaid program. First, nothing prevents someone from receiving an HECM loan and qualifying for Medicaid at the same time. Loan proceeds are not treated as income, no matter what they are spent on, and would affect Medicaid eligibility only if the borrower retained

Figure 2
**Maximum Months of Home Care "Target" Households
 Could Pay For, Using Financial Assets or
 Using Assets plus an HECM, 2000**



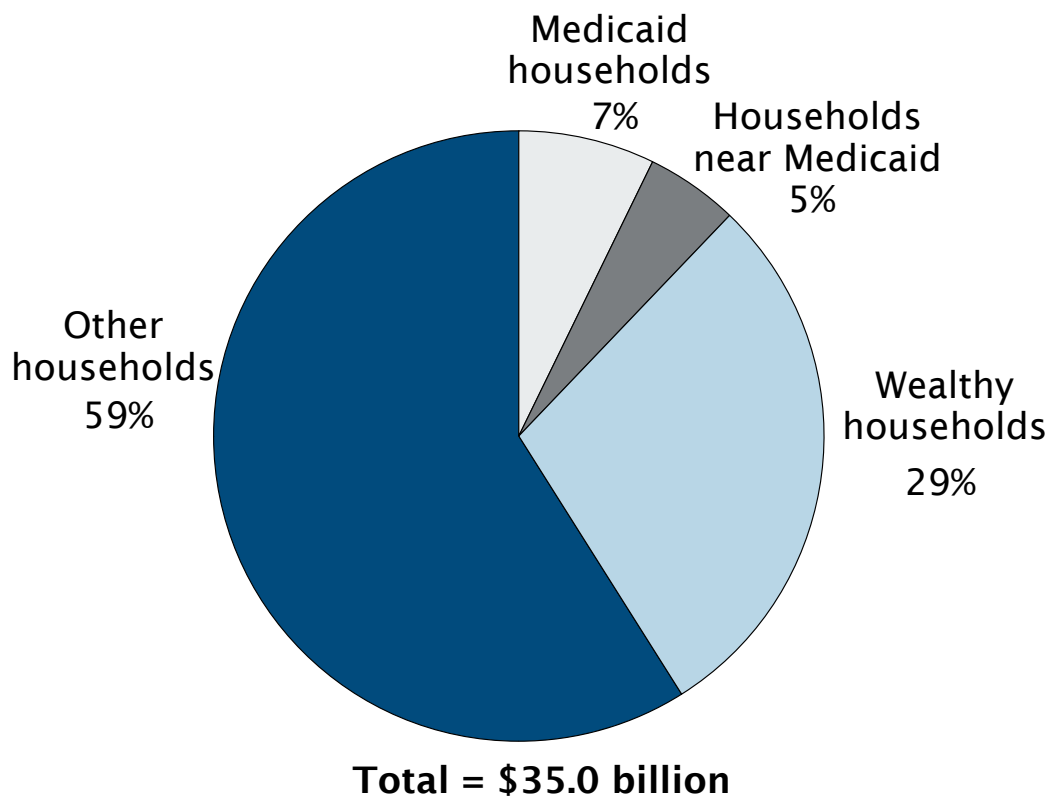
Note: Based on 8.8 million "target" households. Assumes home care expenses of \$2,000 per month.
 SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

enough loan payments (instead of spending them at once) to exceed limits on non-housing assets. Second, Medicaid already has an ultimate claim on the home equity of older people who receive long-term care. There are some circumstances in which it would be more cost-effective for Medicaid to pay for care and recover its expenditures later on, than for the person needing care to use an HECM, because HECMs divert so much of the equity to interest and other loan costs.

Even if Medicaid could achieve some savings by promoting the use of HECMs, this mechanism is unlikely to have a major effect on spending because current or likely beneficiaries simply don't have enough equity. Figure 3 shows annual available loan proceeds for all households with any member reporting difficulty or receiving assistance with activities of daily living (ADLs). (The fig-

Figure 3

Distribution of Potential Annual HECM Proceeds for Households with a Member Reporting or Receiving Assistance with Activities of Daily Living, 2000



Note: Based on 3.0 million households. Assumes 60 monthly term payments. Medicaid households had a member currently or recently receiving Medicaid. Households near Medicaid had income below the poverty level and non-housing assets of less than \$15,000. Wealthy households had non-housing assets greater than \$275,000.

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

ure includes the low-income households and high-wealth households previously excluded from the “target” population.) Overall, HECMs could have yielded \$35 billion in 2000. But nearly a third of these funds would have gone to wealthier households, while only 12 percent (\$4.2 billion) would have been available for Medicaid households or those near Medicaid eligibility. This compares with an estimated \$42 billion in Medicaid spending for long-term care for the elderly in 2001.

HECMs and Long-Term Care Insurance

A second possible use of an HECM is to pay premiums for private long-term care insurance. For many households, this could provide better protection than use of an HECM to pay for care directly, because not everyone will ultimately need long-term care and the risks can be spread across a pool of purchasers.

A private long-term care insurance policy provides payment towards the cost of necessary long-term care services, such as nursing home care or home care. Typically the policy makes fixed dollar payments for each day of care, regardless of the actual cost of the service. Long-term care insurance generally pays benefits only for a fixed period—e.g., two years of nursing home care, three years, and so on; the longer the coverage, the more costly the policy. Most purchasers of long-term care insurance do not expect to need long-term care services until some time in the future; they pay premiums over a period of some years in return for a promise of future protection. Although it is understandable that the elderly are most interested in this protection, long-term care insurance is expensive for those who buy it at older ages, because there is less time to accumulate funds before services are needed.

Relatively few older households can afford to pay these premiums using retirement income. While there are varying ideas of how much people could afford to pay, this report assumes that coverage is affordable if premiums amount to no more than 5 percent of income. Under this criterion, 14 percent of older households can afford long-term care insurance. To encourage the private insurance option, a 2000 change in the federal HECM law permits a waiver of required upfront mortgage insurance premium if the borrower uses the loan solely to pay for long-term care insurance. This waiver would increase potential loan proceeds by an average of 6.7 percent.

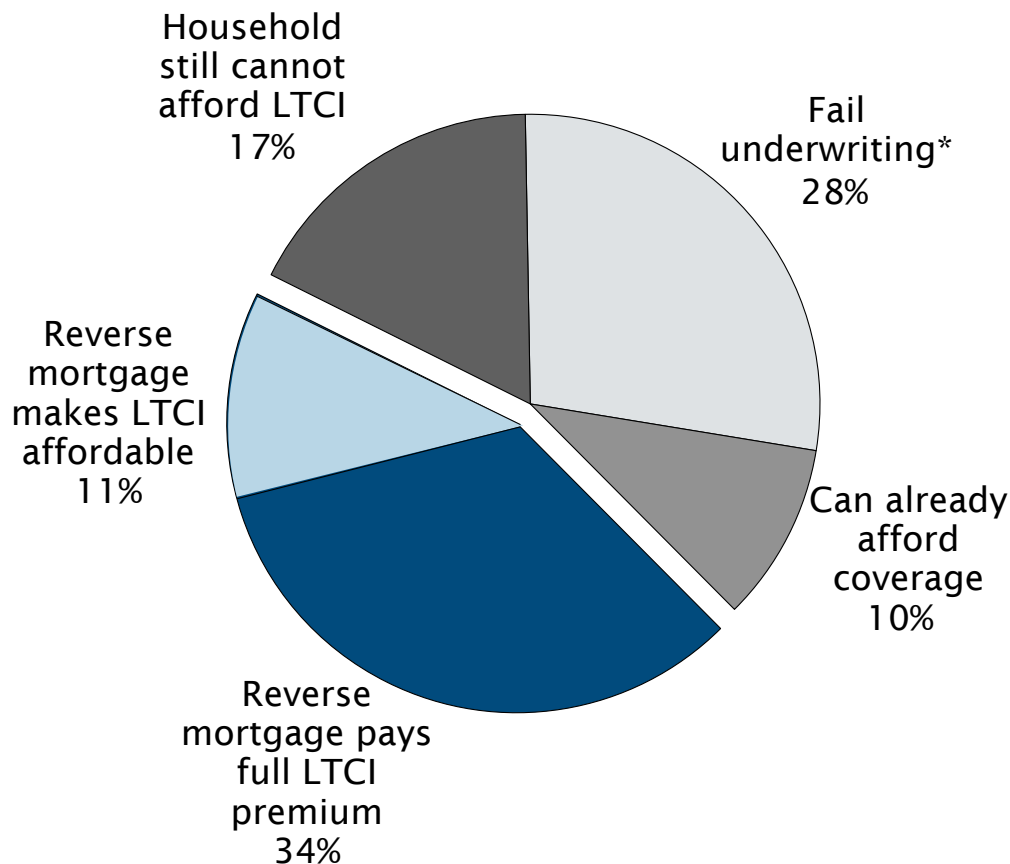
Assuming that people at or close to Medicaid eligibility levels and people with substantial financial assets would not buy coverage (or could afford it without an HECM), the population likely to be interested in an HECM/insurance arrangement might be about the same target group identified above. (It would be slightly larger—8.9 million households instead of 8.8 million—because of the mortgage insurance waiver.) Some of these households would be unable to

obtain coverage, because insurers use underwriting, screening out high-risk applicants by reviewing medical history and functional status.

As Figure 4 shows, of the 8.9 million target households, 72 percent would qualify, using less stringent underwriting criteria than those ordinarily applied by insurers. Of these, 10 percent could already afford coverage without using an HECM. Premiums for a reasonably comprehensive policy (providing a \$100 daily benefit for three years, with a 90-day waiting period and compound inflation protection) would be less than 5 percent of income for this group. For 34 percent of the target population, available HECM proceeds would be sufficient to pay the entire long-term care insurance premium; for another 11 percent, loan proceeds would reduce the net premium to less than 5 percent of income.

Figure 4

Effect of an HECM on Affordability of Long-Term Care Insurance Premiums for "Target" Households, 2000



*For couples, at least one person fails underwriting.

Note: Based on 8.9 million "target" households. Total households greater than in Figure 2 because additional households qualify through waiver of upfront private mortgage insurance premium.

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

Some analysts contend that, because many of these households have limited financial assets to protect, they are unlikely to be interested in long-term care insurance. This may not be so; while asset protection is the most commonly cited reason for buying long-term care insurance, many have other concerns, such as avoiding dependence on children and protecting living standards. Still, there are some major barriers to development of an HECM/insurance market:

Even if they would value insurance, people with limited financial wealth are likely to be reluctant to surrender their largest asset.

Many of the people who might use an HECM to buy long-term care insurance would be mortgaging most or all of their major asset. In doing so, they might deprive themselves of a potential cushion to meet risks other than a need for long-term care. People might need to draw on an HECM for other purposes—for example, to keep up their home or to maintain their standard of living if their retirement income should prove inadequate. In addition, many people with limited financial assets hope to leave their home to children or other heirs.

Different households give different weights to the value of leaving an inheritance versus maintaining current life style. Some people feel strongly about leaving a bequest, while others care much less about leaving an estate and are more willing to trade equity for consumption. Even these people, however, might not be as ready to trade equity for insurance against what is a real but fairly distant risk.

The dual transactions of taking out a loan and then buying insurance are inefficient and costly.

The borrower/buyer must separately cover administrative costs and profit requirements of both the bank and the insurer, as well as interest costs for the loan. A typical long-term care insurance policy pays benefits averaging 60 percent to 70 percent of premiums, with the rest retained by the insurer; HECM costs may be nearly as high. The result could be that the average value of actual long-term care benefits would be just 36 cents for every dollar of equity ultimately surrendered.

Costs might be reduced considerably if one financial institution sold a single product that provided long-term care insurance in return for a direct future claim on the home. This might lower administrative costs and reduce the need for underwriting. A combined product could also have much lower interest costs than an HECM alone, since the interval between pay-out of benefits and recovery of equity would usually be shorter.

Long-term care insurance has a history of rate instability and may be especially risky for people barely able to afford it.

Long-term care insurance is supposed to have “level premiums”: insurers are supposed to set their initial premium rates at levels sufficient to cover their ultimate projected costs. However, an insurer may raise premiums if it can show regulators that more revenue is needed to cover current or future costs. While stronger regulations now being adopted by states may deter abusive pricing practices, rate-setting remains subject to forecast errors, investment income fluctuations, and other uncertainties. While rate increases are a risk for any long-term care insurance purchaser, the marginal buyers who could afford insurance only by using an HECM would certainly be more seriously affected.

Conclusion

While HECMs are costly, they could help finance long-term care for a substantial number of households. Use of this funding source could help some disabled people remain at home and enhance their ability to direct their own care. However, because available funds for many potential borrowers are limited, many would exhaust their loans if they needed intensive care or required services for a long period. For these borrowers, the HECM would merely postpone, rather than obviate, the need for Medicaid assistance.

HECMs could also improve the affordability of long-term care insurance, but this way of paying for coverage is costly, inefficient, and unattractive. Major changes, such as development of a combination loan/insurance product and further modifications of HECM rules, are likely to be needed before this would be a workable option for many people.

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Home Equity Conversion Mortgages and Long-Term Care

Mark Merlis

Introduction

Most older people own their own homes; for many older households, home equity is the largest component of total household wealth. As the nation considers ways of meeting growing costs for long-term care services, there has been growing interest in the possibility that older people without other financial resources could draw on their home equity to help pay for their own care.

One mechanism for doing so is a “reverse mortgage,” under which a lender advances money to an older person in return for a future claim on the home. Some older people with functional disabilities might be able to use proceeds from a reverse mortgage to meet costs for personal care, home modifications, or other assistance needed to remain in the home. Those not yet in need of assistance could use the funds to pay premiums for a private long-term care insurance policy.

This report begins with a summary of how reverse mortgages work and a review of the characteristics of the (relatively few) older people who have used this product. The next section provides estimates of how many older

people could potentially benefit from using a reverse mortgage to pay directly for long-term care, how much money they could get, and the extent to which a loan would enhance their existing ability to finance care. This is followed by a discussion of the potential effects of reverse mortgages on Medicaid eligibility and spending.

The last section reviews the alternative of using a reverse mortgage to pay premiums for private long-term care insurance. It estimates how many older people could already afford to buy reasonably comprehensive coverage, and how many more might be able to afford coverage if they used a reverse mortgage. The section concludes with a review of the major barriers to widespread use of this option and some possible solutions.

All estimates in this report are based on data from the 2000 University of Michigan Health and Retirement Study, which collects health, financial, and other information from a sample of people aged 50 and over. Assumptions used in projecting available reverse mortgage funds are described in the appendix.

Background on Reverse Mortgages

There are three major reverse mortgage programs:

- Home Equity Conversion Mortgages (HECMs), which are offered by banks and insured by the Federal Housing Administration (FHA);
- HomeKeeper loans offered through Fannie Mae (the Federal National Mortgage Association); and
- Financial Freedom cash accounts, a proprietary product offered by the Financial Freedom Senior Funding Corporation.

The major difference among the programs is that HECM loans are subject to upper limits based on median home values in a given area. The HomeKeeper and Financial Freedom programs may allow larger loans than HECM for houses with a very high value. However, they also impose higher loan costs and provide proportionately smaller payouts than the HECM program.

Two state housing agencies, in Connecticut and Montana, offer limited reverse mortgage programs for low- and middle-income elderly people. The Connecticut program is specifically targeted at people who need long-term care; it issued 880 mortgages worth \$93 million between 1969 and 2002

(CHFA 2002). Some states or localities offer elderly people home improvement loans or postponement of property taxes; these programs are similar to reverse mortgages in that repayment is not due until the borrower dies or leaves the home (AARP 2000).

Federally insured HECMs account for about 90 percent of all reverse mortgages issued (NRMLA 2004) and are the most attractive option for people without unusually high home equity. All estimates in this report are based on HECM rules.

How HECMs work

Under an HECM loan, a lender advances money to a homeowner in the form of a series of fixed monthly payments, a line of credit on which the borrower may draw, or a combination.¹ The borrower is not required to make any payments on the loan so long as he or she remains in the house. The lender collects the loan balance—which includes the amounts paid out as well as accrued interest and other charges—when the house is sold by the borrower (or his or her estate). An HECM is a “non-recourse” loan: if proceeds from the sale of the house are insufficient to cover the loan balance, the lender cannot recover its loss from other assets of the borrower or estate. Many of the rules of the HECM program are designed to reduce the risk that the

lender will not recover the full loan balance.

Eligibility

An HECM is available only to homeowners aged 62 or older. If a house is jointly owned, all owners must be 62 or older.

Maximum loan

The maximum initial loan amount is subject to two basic limits. First, the amount of home equity that can be borrowed against is subject to a county-level limit based on median local home values with statutory floors and ceilings.² In 2004, these lending limits ranged from \$160,176 to \$290,319. (Again, homeowners with equity above these limits may be able to get larger loans through the other available reverse mortgage products. Fannie Mae's HomeKeeper has a limit of \$333,700,³ while the Financial Freedom products have no limit.)

Second, the homeowner can borrow only a fixed percentage of the allowed home equity; this percentage is based on the borrower's age at the time of application and the expected interest rate for the loan. This "principal limit" is meant to reduce the risk that the sum of principal and accumulated interest will ultimately exceed the home's value. Older borrowers can borrow more than younger ones, because their debt is less likely to compound over a long period. Given an expected future interest rate of 5.5 percent, 62 year-olds could borrow up to 63 percent of their home's value, while 80 year-olds could borrow 78 percent. (For couples, limits

are based on the age of the younger spouse.) On the other hand, limits for borrowers of all ages go down if expected future interest rates are higher—because a higher mortgage interest rate increases the chance that the loan balance will outpace the home's value. If future interest rates were projected to be 8 percent, the share of home equity a 62 year-old could borrow would drop to 37 percent, while the share an 80 year-old could borrow would drop to 61 percent.

The maximum loan is reduced by a service fee set-aside. Lenders are allowed to charge a monthly service fee, typically \$30, to HECM borrowers; the accumulated fees, plus interest, are collected when the loan is repaid. The service fee set-aside, based on the borrower's age and the expected interest rate, is meant to assure that the lender can ultimately recoup these fees.

Upfront costs

Before the borrower can actually receive any money, proceeds of the loan go to the following initial costs:

- *Closing costs.* The lender may charge a loan origination fee equal to the larger of \$2,000 or 2 percent of allowed home equity. Other typical mortgage closing costs, such as appraisal and recording fees, are also built into the loan; these can amount to as much as \$2,000.
- *Pay-off of existing loans.* A borrower need not own the home free and clear, but any existing mortgage or home equity loan

must be paid off from initial loan proceeds.

- *Home repairs.* If the appraisal determines that the house is in need of repair, funds from the initial loan are set aside for this purpose.
- *Mortgage insurance premium.* To further protect the lender against the possibility that the house's value will not keep pace with the size of the outstanding loan, FHA provides mortgage insurance, the cost of which is paid by the borrower. Borrowers pay an upfront premium of 2 percent of the allowed home equity, and an additional premium is added to the loan balance each month. In 2000, Congress amended the HECM rules to provide that the upfront premium (but not the later premiums) may be waived if the borrower plans to use loan proceeds to buy private long-term care insurance. The effect of this rule, which has not yet been implemented, is discussed later in this report.

Payment options

Borrowers can receive their loan funds in three basic ways:

- As a monthly “tenure” payment: a fixed amount that the borrower will receive for as long as he or she lives in the house. The monthly payment amount is computed on the assumption that the borrower will live to be 100.

- As a monthly “term” payment, equal amounts paid for a term selected by the borrower (for example, 60 months or 120 months).
- As a line of credit on which the borrower may draw at any time, in any amount, until the principal limit is reached. If the borrower has not yet reached this limit, the available balance increases each month at a rate equal to the interest rate charged on the loan.

Borrowers can also elect to take part of their maximum loan in the form of tenure or term payments and leave the balance in a line of credit. As of 1999, two-thirds of borrowers had chosen a line of credit, and another 20 percent used the combination options; only 12 percent had opted for monthly tenure or term payments alone (Abt 2000).

Interest rates

Nearly all HECMs are adjustable rate mortgages (ARMs), tied to a U.S. Treasury security index.⁴ The borrower may choose a rate that adjusts monthly or annually. An annually-adjusted rate may go up no more than 2 percentage points per year and no more than 5 percentage points over the life of the loan. A monthly-adjusted rate usually starts out lower but is subject only to a lifetime cap, typically 10 percentage points, set by the lender.

Loan limits and loan costs

Table 1 shows how the loan limits and initial costs affect the amount of

cash actually available to the homeowner. The figures, like all examples in this report, are based on an expected average interest rate of 5.5 percent over the life of the loan and a 2.8 percent current ARM rate.⁵ The borrower is a 70-year-old with home equity of \$80,000. (This is the median equity for householders of that age who have any net equity.) The age-based principal limit reduces the maximum loan to \$55,120. After upfront costs and set-asides, the cash this borrower could receive at closing is \$45,251, or about 57 percent of the full home value. At any time, the loan balance on an HECM includes built-in closing costs, cash received by the borrower, servicing fees, mortgage insurance premiums, and compounding monthly interest on all of these items. Table 2 compares cash received to loan balances at different intervals for the borrower shown in Table 1. She chooses to take her payments in the form of monthly payments for 15 years, the average life expectancy for a 70 year-old. These payments equal about \$380 a month.

After the first year, she has received \$4,559 and owes \$10,011. The loan cost—the portion of the balance over and above cash received—is 54 percent. This drops over time, then begins to rise slightly. If she survives for the full 15

years, she will owe \$103,523, more than her starting equity of \$80,000. If her house appreciates over this interval, she or her estate may be able to cover the loan balance and still have some equity. Note, however, that the table uses a variable interest rate of 2.8 percent and assumes that this rate holds for the entire 15 years. This is quite unlikely, and a rising variable rate will mean an even higher loan balance. Moreover, a general increase in mortgage interest rates might depress appreciation in the home's value. So there is a real possibility that the lender will not recover the full balance. This is one of the risks mortgage insurance protects against.

Table 1. Net HECM Proceeds for a 70-Year-Old Homeowner with \$80,000 in Equity

Home equity	\$80,000
Principal limit	55,120
Upfront costs and set-asides:	
Loan origination	2,000
Closing	1,240
Mortgage insurance	1,600
Service fee set-aside	5,029
Net cash available to borrower	45,251

Table 2. Growth in Loan Balance and Loan Cost for an HECM Providing Monthly Payments for 15 Years

	Cumulative cash received	Loan balance	Loan cost ^a
Closing	\$ -	\$ 4,840	-
After 1 year	4,559	10,011	54%
After 5 years	22,797	32,485	30%
After 10 years	45,595	65,083	30%
After 15 years	68,392	103,523	34%

a. As a percentage of loan balance.

Characteristics of current borrowers

Reverse mortgages have been available since the 1960s but remain very rare; only 18,000 new federally insured reverse mortgages were written in 2003 (NRMLA 2004). Many people who might benefit from HECMs may not be aware of the product. Others may be deterred by the high costs of the loan. Still others may be reluctant to mortgage the largest asset they might leave to children or other heirs; this issue of a “bequest motive” will be considered further below.

Table 3 compares HECM borrowers to all elderly homeowners. Borrowers are slightly older than other homeowners and are much more likely to be liv-

ing alone. They are more likely to live in the central city of a metropolitan statistical area, and their homes have a higher median value than those of all elderly people.

Given the known characteristics of HECM borrowers, it is believed that they tend to have low incomes and few assets other than their home equity. This view cannot be confirmed from HUD data; while income information is collected from applicants, it is not used in approving mortgages and has proved to be unreliable (Abt 2000). Still, as HECMs are so costly, it seems plausible that many borrowers seek a loan only because they have exhausted other resources.

Table 3. Characteristics of HECM Borrowers and All Older Homeowners

	HECM borrowers, 1999	All older homeowners, 1997
Median age	75	72
Gender/Household composition		
Female living alone	56%	28%
Male living alone	14%	8%
Living with others	30%	65%
Location		
Central city	41%	24%
Metro non-central city	47%	57%
Non-metro	12%	19%
Median appraised property value	\$107,000	\$87,000

SOURCE: HUD (2000).

HECMS as a Direct Source of Long-Term Care Funding

In 2000, about 24 million households were headed by a single adult aged 62 or older or by a married couple both of whom were 62 or older. Of these households, 57 percent owned their homes outright, and another 17 percent had at least some net equity; that is, the estimated value of their houses exceeded any balance remaining on mortgages or other home equity loans. Total home equity held by older households was over \$2.1 trillion. Many of these households might find it advantageous to draw on their equity through an HECM if they needed costly long-term care services.

This section estimates how many older people could potentially benefit from using an HECM, how much money they could get, and the extent to which a loan would enhance their existing ability to finance care. This is followed by a discussion of the potential effects of reverse mortgages on Medicaid eligibility and spending.

How many households could use an HECM?

For many households home equity makes up the largest share of overall household wealth. Table 4 classifies older households by home equity as a percentage of net worth. (In this report, “older” households are those headed by a single person aged 62 or older or by a couple both of whose members are 62 or over.) As shown, 26 percent of older households have no net equity. Older homeowners might be seen as divided into three groups. The first, those for whom home equity makes up less than 50 percent of total wealth, tends to have both substantial home equity and also considerable non-housing assets; this group has a much higher median income than other older households. Most homeowners in this group could be expected to meet any long-term care needs with their existing resources; they would be unlikely to require an HECM.

Table 4. Older Households by Home Equity as a Percentage of Total Net Worth, 2000

Home equity as percent of net worth	Households (millions)	Percent of households	Median home equity	Median net worth	Median income
No net equity	6.2	26%	\$ -	\$ 3,500	\$12,630
Under 25%	3.9	16%	94,500	664,500	45,250
25%-49%	4.7	19%	100,000	286,000	32,390
50%-74%	3.8	16%	90,000	147,250	23,990
75%-99%	4.6	19%	78,000	87,450	16,260
100% or more ^a	1.0	4%	40,000	35,750	10,800
Total	24.2	100%	60,000	129,000	21,850

SOURCE: Author’s analysis of data from the 2000 Health and Retirement Study.

a. Home equity can be larger than net worth if non-mortgage debt exceeds non-housing assets.

At the other extreme are households with more modest home values and little or no non-housing wealth. These households, for whom equity makes up 75 percent or more of total wealth, tend to have very low incomes and might rapidly qualify for Medicaid home care services through the special eligibility standards for people needing home care (or through the spenddown process if they incurred high long-term care costs).

In between are the households for whom home equity makes up 50 percent to 74 percent of net worth. These households have median home equity of \$90,000, non-housing assets of almost \$60,000, and median income of \$23,990—close to the median for all older households.

Table 5 classifies households according to reported difficulties with “activities of daily living” (ADLs, such as bathing, eating, or dressing) or “instrumental activities of daily living” (IADLs, such as housekeeping or taking medications). Households in which one or both members reported any diffi-

culty with any ADL or IADL were somewhat less likely to have home equity than other households (67 percent versus 78 percent); those in which a member actually received help with any ADL were even less likely (63 percent). Still, a substantial majority of older people with functional limitations have at least some equity to draw on.

Not everyone with home equity is eligible for an HECM. First, an HECM is not allowed if anyone other than the single adult or married couple is a co-owner of the property. Of the 18 million households with home equity, 2.5 million (14 percent) reported that someone else—usually a child—was listed on the deed to the property. Second, HECMs are subject to the principal limit, which is based on total equity, the age of the youngest borrower, and the expected interest rate. The actual amount available to the borrower is this principal limit minus the upfront costs described earlier. In addition, if there is any existing mortgage or home equity loan on the property, the balance must be paid off from the initial

Table 5. Older Households by Functional Limitations of Household Members and Home Equity, 2000

Functional limitations of household head or spouse	Households (1000s)	Percent of all households	Households with any home equity (1000s)	Percent with any home equity
Needs ADL help	2,661	11%	1,690	63%
Reports difficulty with ADL/IADL but does not need ADL help	4,318	18%	2,907	67%
No difficulty reported	17,227	71%	13,434	78%
Total	24,206	100%	18,030	74%

SOURCE: Author’s analysis of data from the 2000 Health and Retirement Study.

loan draw.⁶ These requirements can reduce the available funds to zero.

Table 6 shows the percentage of households that could actually receive funds through an HECM. While 74 percent of older households had home equity in 2000, only 64 percent were sole owners, and only 59 percent could have received any net HECM proceeds, using the principal limits for loans with an expected interest rate of 5.5 percent. If interest rates rise, the principal limits go down. If the expected rate were to reach 8 percent, about the average over the last 10 years, the percentage of households eligible for any HECM would drop slightly, to 55 percent. Moreover, the average available loan for the households still qualifying would drop by one-third, from \$57,017 to \$37,645.

Not everyone who needs long-term care and who could qualify for an HECM is actually likely to need a loan; many could finance care in other ways. At one end of the financial spectrum, there are homeowners whose income and non-housing assets are low

enough that they are already receiving Medicaid, or might rapidly qualify for Medicaid through the spenddown process if they began to incur large long-term care expenses. Under current law, homeowners have little incentive to substitute an HECM for Medicaid funds. (The interplay of Medicaid and HECMs will be considered further below.) Moreover, some very low-income older homeowners may have difficulty paying for routine home maintenance.⁷ They might fail mortgage underwriting or have to devote a large share of loan proceeds to repairs.

It is not inconceivable that some Medicaid-eligible homeowners would still wish to draw on an HECM—for example, to pay for services Medicaid does not cover or to obtain improved access to or choice of services. And some states have more stringent eligibility tests than others, or have a waiting list for Medicaid home and community-based services. Still, for the purpose of analysis, it seems reasonable to exclude very low-income households from the population for whom an HECM could be a significant funding

Table 6. Percentage of Older Households Qualifying for an HECM, by Functional Limitations of Household Members

Functional limitations of household head or spouse	Any home equity	Household head or couple are sole owners	Available HECM greater than zero with expected interest rate of...	
			5.5 percent	8 percent
Needs ADL help	63%	54%	50%	47%
Reports difficult with ADL/IADL but does not need ADL help	67%	56%	51%	48%
No difficulty reported	78%	68%	62%	58%
Total	74%	64%	59%	55%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

source. In this report, households are treated as “potential Medicaid” if they were currently or recently enrolled in the program, or if they had income below the federal poverty level and non-housing assets of less than \$15,000.⁸

At the other end of the spectrum are households that already have sufficient financial assets to cover their own long-term care needs without drawing on an HECM. Any measure of how much wealth is “sufficient” is necessarily arbitrary. In this report, households are treated as unlikely to draw on an HECM for long-term care if their non-housing assets were at least \$275,000. (This represents the upper quartile of non-housing wealth for all older homeowners.)

Table 7 shows the number of households excluded using these criteria and the remaining “target group”—households that might be expected to benefit from an HECM if they should need long-term care. Overall, 36 percent of older

households could benefit from using an HECM if they needed long-term care services. The figure is slightly lower (32 percent) for households already reporting ADL or IADL limitations and still lower (29 percent) for households receiving ADL help.

How much money could these households get?

Table 8 shows the distribution of maximum initial loan amounts for households in the target group. (The two disability categories used in the preceding tables are merged here to maintain adequate sample size.) Households reporting any functional limitation tend to qualify for a slightly higher median initial loan than households reporting no limitation. However, the distribution of potential loan amounts is quite similar for the two groups.

How much care these loan proceeds could cover would depend on what services the borrower needed, how

Table 7. Older Households Likely to Benefit from an HECM, by Household Functional Limitations of Household Members

Functional limitations of household head or spouse	Older households (1000s)	Eligible for HECM (1000s)	Percent of households eligible for HECM	Potential Medicaid (1000s)	Substantial financial assets (1000s)	Net target group (1000s)	Target group as percent of all households
Needs ADL help	2,661	1,334	50%	291	268	775	29%
Reports difficulty with ADL/IADL	4,318	2,219	51%	376	445	1,397	32%
No difficulty reported	17,227	10,657	62%	893	3,108	6,656	39%
Total	24,206	14,210	59%	1,561	3,821	8,828	36%

SOURCE: Author’s analysis of data from the 2000 Health and Retirement Study.

Table 8. Distribution of Maximum Initial HECM Loan Amounts for Target Households, by Functional Limitations of Household Members

Initial loan amount	Household reports ADL or IADL limitation		No limitation reported	
	Households (1000s)	Percent of households	Households (1000s)	Percent of households
Under \$10,000	181	8%	392	6%
\$10,000-\$24,999	379	17%	1,028	15%
\$25,000-\$49,999	638	29%	2,090	31%
\$50,000-\$75,000	452	21%	1,434	22%
\$75,000-\$99,999	373	17%	1,344	20%
\$100,000 and over	148	7%	368	6%
Total	2,172	100%	6,656	100%
Median initial loan amount	\$46,778		\$45,636	

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

long services were required, and also on where he or she lived. (One recent market survey found that hourly home health aide costs were more than twice as high in some areas as in others; MetLife 2003.) Suppose that the borrower needs daily home health aide visits at a cost of about \$70 a day or about \$25,000 a year. Among borrowers with functional limitations, 72 percent would have HECM proceeds sufficient to cover more than one year of care at this level without spending other income or assets; 42 percent would have proceeds sufficient to cover more than two years of care; 22 percent could cover more than 3 years.⁹

How likely is it that borrowers could cover their home care costs for as long as they are otherwise able to remain at home? Table 9 shows the Society of Actuaries Long-Term Care Experience Committee's estimates of the duration of home care episodes for people requiring assistance with 2 or more ADLs and beginning care at different ages.

The estimates are for a single episode covered by long-term care insurance; an episode may end with recovery, institutional placement, or death. Older people are slightly more likely to have a short episode, but the distribution does not vary greatly by age. About a quarter of episodes last less than a year; nearly half last less than two years.

There is no way of knowing whether people with long episodes would also be the ones with larger available HECM loans, whether the reverse would be true, or whether there would be no relationship. Supposing, however, that loan amounts were identically distributed within each durational group—and continuing the assumption that home care costs average \$25,000 per year—the results might be those shown in Table 10.

Of all home care episodes, 25 percent last 10 months or less; 83 percent of HECM borrowers would have a loan large enough to cover an episode of this

Table 9. Percentage of Community Long-Term Care Episodes Covered by Private Long-Term Care Insurance, by Duration of Episode and Age at Start of Episode

Duration of episode	Age at start of episode			
	65.5	75.5	85.5	All ages
Under 12 months	23%	26%	29%	27%
12-23 months	18%	19%	22%	20%
24-35 months	14%	14%	16%	15%
36-47 months	11%	10%	11%	11%
48 months or more	34%	30%	22%	27%
Total	100%	100%	100%	100%

SOURCE: Stallard and Yee (1999).

Note: An episode begins when an individual needs at least standby help with two or more ADLs or has cognitive impairment; estimates based on coverage with no elimination period. Percentages may not add up to totals due to rounding.

Table 10. HECM Borrowers in Target Households with Sufficient Funds to Cover Possible Home Care Episodes, by Duration of Episode

Duration of Episode	Duration in months	Cost	Percent of borrowers with sufficient loan amount
25th percentile of episodes	10	\$ 20,833	83%
Median episode	25	52,083	44%
75th percentile of episodes	51	106,250	2%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study and Stallard and Yee (1999).

length. However, only 44 percent could cover the median episode length of 25 months. Only a tiny minority could cover the top quarter of episodes, which last 51 months or longer. This is merely an illustration, using very arbitrary assumptions, but it does suggest that HECMs could make at least some difference to a considerable number of people. Of course, the flip side of the illustration is that more than half of borrowers would exhaust their loans while they still needed home care.

The potential benefits of HECMs might be diminished if the people who

could receive larger loans already have sufficient other assets to cover much of the cost of their care. Table 4, above, showed that people with high home equity also tended to have high non-housing wealth. Of course there are exceptions, and the wealthiest households have already been excluded from the target HECM pool (by the assumption that households with \$275,000 in non-housing assets would not seek an HECM).

For the households in the HECM pool, Table 11 compares non-housing assets to the available HECM loan.

The table shows that people with more non-housing wealth are also likely to qualify for a higher HECM loan than people with less non-housing wealth. Still, HECM loans have a considerable leveling effect. Of people with less than \$25,000 in non-housing assets, 64 percent could get an HECM of \$25,000 or more, at least doubling their wealth; 15 percent could triple their wealth.

Another way of looking at this question is to estimate how much care people could buy using only their existing assets and how much more care they could buy if they added an HECM. Table 12 shows households by the

months of care they could afford, before and after an HECM loan, assuming home care costs of \$2,000 per month. Using non-housing assets alone, 22 percent of households could cover 6 months of care or less.¹⁰ This drops to 3 percent of households when an HECM is added. With an HECM, 80 percent of households could cover more than two years of care, compared to 53 percent with non-housing wealth alone.

Table 11. Distribution of Available HECM Loans for Target Households, by Household Non-Housing Wealth

Non-housing wealth	Households (1000s)	Available HECM Loan					
		Under \$10,000	\$10,000-\$24,999	\$25,000-\$49,999	\$50,000-\$75,000	\$75,000-\$99,999	\$100,000 and over
Under \$25,000	2,687	12%	24%	35%	13%	11%	4%
\$25,000-\$49,999	1,482	6%	15%	34%	22%	17%	5%
\$50,000-\$99,000	1,741	5%	15%	27%	24%	22%	7%
\$100,000 and over	2,918	3%	9%	27%	27%	27%	7%
Total	8,828	6%	16%	31%	21%	19%	6%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

Table 12. Months of Home Care (at \$2,000 per Month) Covered Using Non-Housing Assets and with HECM Loan Plus Non-Housing Assets (percent of target households)

Months covered	Using non-housing assets	Using HECM plus non-housing assets
Zero	7%	1%
1-6	15%	2%
7-12	11%	4%
13-24	15%	12%
25-36	11%	12%
Over 36	42%	68%
Total	100%	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

HECMs and Medicaid

Much of the current interest in promoting the use of reverse mortgages as a source of long-term care financing stems from the hope that Medicaid long-term care expenditures might be reduced. While it is certainly possible that HECMs could help people postpone the day on which they will need Medicaid, at least two factors limit the likely savings to the Medicaid program. First, nothing prevents someone from receiving an HECM loan and qualifying for Medicaid at the same time. Second, Medicaid already has an ultimate claim on the home equity of older people who receive long-term care. There are cases in which it would be more cost-effective for Medicaid to pay for care and recover its expenditures later on than for the person needing care to use an HECM.

There has been some confusion about the effect of an HECM loan on Medicaid eligibility; even the Centers for Medicare and Medicaid Services (CMS 2004) misstate current policy on their consumer website.¹¹ HECM payments to a borrower, whether tenure or term payments or draws on a line of credit, are loan proceeds and are therefore *not* counted in determining whether an applicant meets *income* eligibility standards.¹² If the borrower receives HECM payments and lets them accumulate—if, for example, the borrower receives monthly tenure payments and deposits them in a savings account—the result could be that the borrower would exceed the Medicaid *asset* limits. (For recipients of Medicaid home care services, non-housing assets

are limited to \$2,000 for a single person or \$3,000 for a couple.¹³ Home equity is not counted toward this limit while the beneficiary remains in the home.)

However, so long as the borrower spends the HECM proceeds each month, instead of accumulating them, and other assets are within the limits, the HECM has no effect on eligibility. This is true regardless of what the money is spent on—home care, other medical needs, or simply maintaining or improving the borrower's lifestyle. As a result, someone who otherwise qualifies for Medicaid could use an HECM to maintain or improve her standard of living or to pay for services Medicaid does not cover. No one in this situation would have any incentive to substitute HECM payments for payments already available through Medicaid. Of course the Medicaid rules could be changed, and HECM proceeds could count toward Medicaid income limits. But then few people immediately eligible for Medicaid would have any reason to take out an HECM.

The situation may be different for people who are not immediately eligible for Medicaid but who would qualify after some period of spending down non-housing assets. Medicaid might realize savings if an HECM could delay the point at which the borrower needed to use other resources, and hence delay the point (some time later) at which he or she reached Medicaid levels. The potential savings to Medicaid depend on whether the borrower ultimately becomes eligible for Medicaid. If so, the consumption of equity by the HECM reduces a resource from which Med-

icaid could have recovered some of its spending.

Under Medicaid law, if a beneficiary aged 55 or older receives institutional care or home and community-based long-term care (whether or not under a waiver program), the state Medicaid program must attempt to recover paid amounts from the beneficiary's estate, including any proceeds from the sale of the beneficiary's home. If the state determines that an institutionalized beneficiary "cannot reasonably be expected" to return home, then the state may place a lien on the house, to assure that it can recover later on. A state may not recover from the estate if there is a surviving spouse, minor child, or adult disabled child; it may not put a lien on the house if it is occupied by any of these people, a sibling, or an adult child who was previously a home care-

giver.¹⁴ State Medicaid programs have varied in the vigor with which they pursue estate recoveries. Still, collections from estates in 2002 totaled \$303 million (CMS 2004).

Table 13 gives an example of the possible tradeoffs in replacing Medicaid spending with an HECM. Suppose that an 80 year-old woman with \$41,625 in home equity and \$27,000 in non-housing assets requires three years of long-term care costing \$25,000 per year. Her home equity allows her to obtain an HECM making 12 monthly payments summing to \$25,000; this covers her first year of care. She covers her second year of care by spending down her other assets, reducing the \$27,000 to the Medicaid-allowed \$2,000. At this point, she enrolls in Medicaid, which pays \$25,000 for her third year of care, after which she dies

Table 13. Example of Effect of Partial Substitution of HECM Funds for Medicaid Payment

	Loan pays 1 year of care, assets pay 1 year, Medicaid pays 1 year	Assets pay 1 year of care, Medicaid pays 2 years
Equity	\$41,625	\$41,625
Other assets	27,000	27,000
Care covered by:		
Loan proceeds	25,000	0
Spendedown of assets	25,000	25,000
Medicaid	25,000	50,000
Proceeds from sale of home (93%)	38,711	38,711
Loan balance after third year	32,480	0
Net recovery by Medicaid	6,231	38,711
Net Medicaid spending	18,769	11,289

or enters a nursing home. In either case, her home will eventually be sold. After realtor fees and other costs, totaling 7 percent of sale proceeds, net proceeds are \$38,711. This amount must first go to pay off the reverse mortgage loan balance. Because of financed closing costs, service fees, mortgage insurance premiums, and compounding interest, the balance at the time of sale is \$32,480. Once this has been paid off, Medicaid can recover \$6,231. Net Medicaid outlays for one year of care are \$18,769.

The table compares this scenario with an alternative: the homeowner does not use a reverse mortgage and instead spends down assets for the first year of care; she then receives two years of Medicaid-paid care, for a total of \$50,000. After the sale of the home, the whole \$38,711 of net proceeds goes to Medicaid. Net Medicaid outlays for two years of care are \$11,289. Medicaid actually saves \$7,480 if the homeowner does *not* use a reverse mortgage.¹⁵

Obviously, there will be cases in which a borrower pays for her whole course of care with an HECM and thus avoids Medicaid entirely. And the tradeoffs are more complicated for married couples, because both HECM and Medicaid rules delay sale of the house until both spouses have left it. Still, policy-makers who hope to see Medicaid savings must take account of the fact that, as a way of tapping equity, HECMs are much more costly than direct estate recovery, because of the interest, closing, and service costs that inflate the HECM loan balance.

On the other hand, Medicaid estate recovery has never been popular with elderly people or their families, and advocates report that concerns about loss of the home lead some people to forgo Medicaid benefits for which they are eligible (Nemore 1999). If states are reluctant to enforce recovery requirements, promotion of HECMs might be more widely accepted. Again, however, it should be noted that the real cost to heirs of paying off an HECM balance will be greater than the cost of repaying Medicaid spending for equivalent services.

Finally, even if it made sense to promote the use of HECMs by people who are receiving Medicaid-paid long-term care or who might receive it in the near future, it cannot be expected that HECMs would play a major role in financing care for this population. Table 14 shows the annual amount that would have been available if every household that qualified for an HECM and had any functional limitation obtained a loan. The table assumes that loan proceeds would be taken in the form of equal monthly payments for 60 months. Unlike other tables in this report, this one includes the low-income households and high-asset households earlier excluded from the “target” population.

If every household with any member reporting difficulty with IADLs or ADLs had taken out a loan, total annual proceeds would have been \$42 billion. Of this, \$12 billion would have gone to households with non-housing assets of \$275,000 or more, while about \$5 billion would have gone to households currently receiving Medicaid or very

Table 14. Distribution of Potential Annual HECM Proceeds for Households with a Member Reporting ADL or IADL Limitation, 2000

	Any ADL or IADL limitation		ADL limitation only	
	Dollars (billions)	Percent	Dollars (billions)	Percent
Medicaid household	\$ 3.2	8%	\$ 2.5	7%
Household near Medicaid	2.0	5%	1.7	5%
Wealthy household	12.1	29%	10.1	29%
Other household	24.8	59%	20.7	59%
Total	42.1	100%	35.0	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

Note: Assumes 60 monthly term payments. Medicaid households had a member currently or recently receiving Medicaid. Near-Medicaid households had income below poverty and non-housing assets of less than \$15,000. Wealthy households had non-housing assets of \$275,000 or more.

near Medicaid eligibility levels. If the numbers are restricted to households with ADL limitations—those most likely to receive Medicaid-paid long-term care—about \$4.2 billion would have been available for the Medicaid and near-Medicaid groups. By comparison, Medicaid spending for long-term care

for the elderly in 2001 was an estimated \$42 billion (Merlis 2004). Once again, even if all \$4.2 billion in HECM proceeds would have been applied to services Medicaid would otherwise have paid for, net savings would likely have been less than could have been recovered through the lien process.

HECMs and Long-Term Care Insurance

A second possible use of an HECM is to pay premiums for private long-term care insurance. For many households, this could provide better protection than use of an HECM to pay for care directly, because not everyone will ultimately need long-term care and the risks can be spread across a pool of purchasers.

This section begins with a brief explanation of how long-term care insurance works. It then provides estimates of how many older homeowners might be able to buy coverage using an HECM. The section concludes with a discussion of the problems with this approach and some possible solutions.

Background on long-term care insurance

A private long-term care insurance policy provides payment towards the cost of necessary long-term care services, such as nursing home care or home care. Typically the policy makes fixed dollar payments for each day of care, regardless of the actual cost of the service. Long-term care insurance generally pays benefits only for a fixed period — e.g., two years of nursing home care, three years, and so on; the longer the coverage, the more costly the policy. (Some policies have a dollar limit instead of a time limit.) To receive benefits, a policyholder must not only obtain the covered service, but must also meet a “benefit trigger.” For example, he or she requires assistance

in performing two or more ADLs, or requires supervision because of a cognitive impairment, such as Alzheimer’s disease.

Most purchasers of long-term care insurance do not expect to need services until some time in the future; they pay premiums over a period of some years in return for a promise of future protection. Because the cost of long-term care services will likely rise over time, a per diem coverage amount that might be adequate today could be inadequate by the time services are needed. As a result, most policies offer inflation protection for an additional charge: for example, the policy may provide that the allowable per diem payment will increase 5 percent per year. Many policies provide a “nonforfeiture” option, which allows a policyholder who stops making premium payments to recover some of the accrued value of the policy. For example, the policyholder who has stopped making payments may retain a policy that provides lifetime coverage but with reduced benefits.

As of 2001, cumulative sales of long-term care policies exceeded 8 million; it is uncertain how many of these policies remain in effect (Coronel 2003). Most purchasers to date have been affluent elderly or near-elderly people, often interested in protecting their estates in the event of a long nursing-home stay or other catastrophic episode. However, an increasing number of employers—now including the federal

government—offer their workers an opportunity to purchase group long-term care insurance coverage. Within the individual market, which continues to account for most long-term care insurance sales, there has been a slight shift toward younger purchasers in recent years (Lifeplans 2002).

Although it is understandable that the elderly are most interested in this protection, long-term care insurance is expensive for those who buy it at older ages. Under the federal employees' program, a reasonably comprehensive policy that would cost a 40-year-old \$521 a year would cost \$1,421 for a 65-year-old and \$2,940 for a 75-year-old.¹⁶ Relatively few elderly households can afford to pay these premiums using retirement income. While there are varying ideas of how much people could afford to pay, this report assumes that coverage is affordable if premiums amount to no more than 5 percent of income. Under this criterion, 14 percent of older households can afford long-term care insurance. Only 11 percent of single older people can afford coverage, compared to 18 percent of married couples.¹⁷

Effect of an HECM on affordability of insurance

Many more elderly people could afford long-term care insurance if their income were boosted through an HECM. To promote the use of HECMs for this purpose, the American Homeownership and Economic Opportunity Act of 2000 waives the upfront mortgage insurance premium for borrowers who use loan proceeds solely to pay long-term care

insurance premiums. (This waiver has not yet been implemented.) As noted earlier, this initial premium payment—equal to 2 percent of counted home equity—is financed through the loan, reducing cash available to the borrower. The amount by which the waiver would increase available cash depends on the borrower's age and home equity and on the expected mortgage interest rate; at current rates, the average increase is 6.7 percent. The waiver is not free. HUD (2002) estimates that the mortgage insurance pool would lose about \$1,000 per participant, because participants would still be covered through the pool without having paid their full share. This difference would have to be made up by other borrowers or by the federal government.

To estimate how many more people could afford long-term care insurance using an HECM, Table 15 begins with the target pool of potential borrowers established earlier.¹⁸ Again, this pool consists of households that could receive any net cash from an HECM, that are not very close to Medicaid eligibility, and that do not have very large non-housing assets. Of course some people with large financial assets might want insurance to protect those assets; however, these people can presumably pay premiums without recourse to an HECM.

The target pool must be further reduced to reflect the fact that many potential buyers would fail the underwriting tests insurers use to screen out people who are likely to use long-term care in the near future. HRS data do not include enough health variables to

Table 15. Households in HECM Target Population Able to Pass Simple Underwriting Screen

	Households (1000s)	Percent
Singles		
Pass	3,379	78%
Fail	928	22%
Total	4,308	100%
Couples		
Both pass	3,020	66%
One passes	1,217	27%
Both fail	326	7%
Total	4,564	100%
All households		
Pass	6,400	72%
Fail	2,472	28%
Total	8,871	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

model actual underwriting practices. Instead, Table 15 uses a crude test: applicants are rejected if they already report difficulty with any ADL or IADL, or if their self-reported health status is "poor." Among single adults, 22 percent fail this test. Among couples, one spouse passes and one fails in 27 percent of cases, while both fail in another 7 percent of cases. These are very low estimates of likely rejection rates; insurers might well reject at least twice as many potential buyers.¹⁹

The estimates here assume that couples will forgo coverage if either spouse fails underwriting, even if the other spouse is eligible. If one spouse is already in failing health, it doesn't seem very sensible to draw on home equity to insure the other; the available resources may well be needed to provide care for the partner who is already ill. The result of underwriting is that

the pool of 8.9 million potential borrowers is reduced to 6.4 million.

Table 16 shows how many of these 6.4 million households can afford insurance with and without an HECM. The table uses two different standards for determining if coverage is affordable. Under the first, a couple can afford insurance if premiums are no more than 5 percent of income. Under the second, premiums can be as much as 7 percent of income; this is the "suitability" threshold specified in the National Association of Insurance Commissioners' model regulations for long-term care insurance.

Premiums are those used in 2004 by the federal employees' long-term care insurance program for a policy providing a \$100 daily benefit for three years, with a 90-day waiting period and compound inflation protection.²⁰ Couples

Table 16. Effect of HECM on Affordability of Long-Term Care Insurance with Loan in the Form of Monthly Tenure Payments

	Affordability defined as premium less than:			
	5% of income		7% of income	
	Households (1000s)	Percent	Households (1000s)	Percent
Can already afford coverage	884	14%	1,490	23%
Reverse mortgage pays full LTCI premium	2,991	47%	2,572	40%
Reverse mortgage makes LTCI affordable	985	15%	1,128	18%
Household still cannot afford LTCI	1,540	24%	1,210	19%
Total eligible households	6,400	100%	6,400	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study and Federal Long-Term Care Insurance Program premium rates.

get a 10 percent discount, following private insurer practice; the federal program does not actually offer this discount. The borrower is assumed to receive HECM funds in the form of a monthly tenure payment—that is, a fixed payment for as long as the borrower stays in the house. As the table shows, using the 5 percent affordability threshold, about 14 percent of the potential borrowers could already afford coverage without using an HECM. Another 47 percent could receive a monthly tenure payment sufficient to pay the full cost of long-term care insurance. For 15 percent of households, the HECM would not cover the full premium cost, but would reduce the net premium to the point that the remainder paid by the household would be less than 5 percent of income. Finally, 24 percent of households cannot afford coverage, with or without an HECM. Using the 7 percent affordability threshold increases the estimated number of potential borrowers who could already afford coverage, but reduces the number for whom an HECM brings coverage within reach.

When people take their HECM funds in the form of monthly tenure payments, the payment amount is computed on the assumption that the borrower will receive payments until his or her 100th birthday. Borrowers can receive larger monthly payments if they elect a shorter term. Table 17 shows the effect if each borrower chooses a term equal to his or her average life expectancy (or, for couples, that of the spouse with the longest life expectancy). As the table shows, this option makes insurance affordable for many more households.

The obvious drawback is that people who live longer than the average will eventually lose their HECM payments and might be unable to pay their premiums. At this point they might lose their coverage or, if the policy has a nonforfeiture benefit, receive reduced coverage. This problem could be addressed if, instead of taking the loan in the form of monthly payments, the borrower took a single lump-sum payment and used this to buy a fully paid-up long-term care insurance policy.

This kind of arrangement, known as a “single premium” plan, does ex-

Table 17. Effect of HECM on Affordability of Long-Term Care Insurance with Loan in the Form of Monthly Payments for Term Based on Household Life Expectancy

	Affordability defined as premium less than:			
	5% of income		7% of income	
	Households (1000s)	Percent	Households (1000s)	Percent
Can already afford coverage	884	14%	1,490	23%
Reverse mortgage pays full LTCI premium	3,928	61%	3,458	54%
Reverse mortgage makes LTCI affordable	750	12%	819	13%
Household still cannot afford LTCI	838	13%	632	10%
Total eligible households	6,400	100%	6,400	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study, Federal Long-Term Care Insurance Program premium rates, and Arias (2004).

ist, although it is uncommon. A single premium plan is generally more costly than an ordinary policy with comparable benefits. Under ordinary policies, the insurer can raise rates if loss experience is greater than anticipated. (The potential effects on borrowers are considered below.) An insurer selling a single premium plan can never require an additional payment from the policyholder; an allowance for unexpected losses is therefore built into the premium rate.

Barriers to HECM/insurance arrangements

Several recent studies have concluded that not many households are likely to be interested in an HECM/long-term care insurance arrangement, even with the modest new incentive created by the upfront premium waiver (HUD 2002; Stucki 2004). HECMs and insurance have so far appealed to very different populations. HECM borrowers are older and more likely to be single, and probably have lower incomes and non-housing assets than other elderly homeowners. Buyers of private long-

term care insurance are younger, more likely to be couples, and have higher incomes and assets.

It is certainly true that the people for whom an HECM would make long-term care insurance affordable are quite different from current insurance buyers. In particular, as Table 18 shows, they are much less likely to have substantial non-housing assets. (The table assumes monthly tenure payments and uses the 5 percent of income affordability standard.)

HUD (2002) argues that households with limited non-housing assets have no reason to obtain insurance. But this assumes that asset protection is the only reason for wanting private coverage. Although asset protection was the most common motive for people who bought coverage in 2000, cited by 31 percent of buyers, the rest listed other reasons—including avoiding dependence on children and protecting living standards—as more important (Lifeplans 2002). As these concerns are shared by many people who cannot afford insurance now, it does not seem

Table 18. Non-Housing Assets of Potential Long-Term Care Insurance Buyers Using an HECM and of Actual Buyers, 2000

Financial assets	Potential buyers using HECM	Actual buyers
Less than \$20,000	21%	6%
\$20,000-\$29,999	8%	5%
\$30,000-\$49,999	13%	7%
\$50,000-\$74,999	13%	5%
\$75,000-\$99,999	8%	6%
\$100,000 and Over	37%	71%
Total	100%	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study and Lifeplans (2002).

Note: Potential buyers use an HECM with monthly tenure payments; the loan pays the full insurance premium or reduces the price to less than 5% of income.

unreasonable to suppose that some would be willing to trade part of their home equity for better protection.

Still, there are some major barriers to development of an HECM/insurance market:

- Even if they would value insurance, people with limited financial wealth are likely to be reluctant to surrender their largest asset.
- The dual transactions of taking out a loan and then buying insurance are inefficient and costly.
- Long-term care insurance has a history of rate instability and may be especially risky for people barely able to afford it.

Trading equity for insurance

Many of the people who might use an HECM to buy long-time care insurance would be mortgaging most or all of their major asset. In doing so, they might deprive themselves of a potential cushion to meet risks other than a need for long-term care. People might need to draw on an HECM for other purposes—

for example, to keep up their home or to maintain their standard of living if their retirement income should prove inadequate. Someone who was using an HECM for insurance and faced one of these other contingencies might then be forced to use the HECM for other purposes and stop paying premiums, losing everything he or she had already paid in. If a buyer had used a lump-sum HECM draw to buy full paid-up insurance (the single premium option discussed above), he or she might have no financial cushion at all.

Leaving aside their own potential needs, HECM borrowers would be reducing or eliminating the bequest they could leave to children or other heirs. Table 19 shows the expectations of the 4 million older households for whom an HECM made long-term care insurance potentially affordable (using the 5 percent threshold and monthly tenure payments). Nearly all of these households expect to leave some inheritance, and over half expect to leave an estate larger than their current non-housing assets. While some of these may expect their financial holdings to grow during retirement, most presumably assume

Table 19. Percentage of Potential HECM/Insurance Purchasers Expecting to Leave a Bequest

	Households (1000s)	Percent
Expect to leave a bequest:		
Less than or equal to non-housing assets	1,635	41%
Greater than non-housing assets	2,085	52%
Do not expect to leave a bequest	254	6%
Total	3,975	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

Note: Potential buyers use an HECM with monthly tenure payments; the loan pays the full insurance premium or reduces the price to less than 5% of income.

that their homes will be part of the estate.

That people expect to leave an estate does not necessarily mean that doing so matters very much to them or that this goal overrides other priorities. There has been an extensive debate over how important the bequest motive is, and how willing older people are to draw down their housing equity (either through a reverse mortgage or by trading down) to finance current consumption (Megbolubge, Sa-Aadu, and Shilling 1997). Different households give different weights to the value of leaving an inheritance versus maintaining current lifestyle. Some people feel strongly about leaving a bequest—for example, because their children have limited resources, or because they wish to repay heirs who have provided informal care or made other sacrifices. Other people care much less about leaving an estate and are more willing to trade equity for consumption. Even these people, however, might not be as ready to trade equity for insurance.

Would very many people be willing to mortgage much or all of their only major asset to insure against a future risk? It is true that future long-term

care needs could themselves eat up home equity. If households that could potentially buy long-term care insurance fail to do so, there is a possibility that they will eventually need to draw on equity to finance care directly. Or they may need to turn to Medicaid, in which case equity would be subject to estate recovery. While these risks are real, they are only risks, while the consumption of home equity in an insurance arrangement is a certainty.

People might be more willing to spend part of their equity for insurance than to use all of it. Table 20 shows what happens if people are willing to mortgage 25 percent, 50 percent, and 75 percent of their equity. The number

Table 20. Percentage of Potential HECM/Insurance Purchasers Able to Afford Coverage with Equity Contribution Restricted

Percent of equity available for mortgage	Households that can still afford insurance (1000s)	Percent of households
25%	1,036	26%
50%	2,434	61%
75%	3,418	86%
100%	3,975	100%

SOURCE: Author's analysis of data from the 2000 Health and Retirement Study.

of prospective buyers drops markedly as the percentage of equity made available is reduced.

There is no way of guessing what share of equity people would actually be willing to use. Assuming this share is limited, the likelihood that people will obtain coverage would obviously be greater if the cost of the joint loan/insurance transaction could be reduced.

Transaction costs

Taking out an HECM loan and then using the proceeds to buy long-term care insurance is an extremely inefficient way of tapping into equity.

The borrower/buyer must separately cover the administrative costs and profit requirements of both the bank and the insurer. A long-term care insurance policy may have a “loss ratio” in the range of 60 percent to 70 percent. That is, this share of premiums is actually paid out in the form of benefits, with the rest retained by the insurer. As was shown in Table 2, HECMs may be equally costly. Depending on the duration of the loan, the cash amount actually received by the borrower might be between 44 percent and 65 percent of the total loan balance. Supposing that 60 percent of the final loan balance went to pay premiums, and 60 percent of premiums went to provide benefits, then the average value of the benefits would be just 36 cents for every dollar of equity ultimately surrendered. Of course, depending on life span and need for services, different participants might see a greater or smaller return. But the whole pool of

borrowers/buyers would receive benefits amounting to just over a third of the equity committed.

Costs might be reduced considerably if one financial institution sold a single product that provided long-term care insurance in return for a direct future claim on the home. This product could substantially reduce administrative costs, not only because just one institution would be marketing, processing applications, and so on, but also because the ongoing operations might be more or less paperless. Under the current system, a lender would be sending out monthly checks and the borrower would be making monthly premium payments to an insurer; neither transaction would be necessary under a merged product.

A combined loan/insurance product could also address a second major drawback that arises from separate loan and insurance transactions: in underwriting terms, the risks presented to the lender and insurer are almost mirror images. The HECM lender has to be concerned that the borrower will live in the house for a very long time, so that loan draws, compounding interest, and other charges might result in a final loan balance greater than the value of the home. This is why there is mortgage insurance and why younger borrowers are allowed smaller loans than those nearer the end of life. Long-term care insurers have almost the opposite concern: that policyholders will need long-term care soon after enrolling and before they have paid enough in premiums to cover their benefits. This is why insurers use underwriting to screen out

high-risk applicants, and premiums are lower for younger purchasers who can be expected to pay into the policy for a long time.

While the two different sets of risks are not precisely symmetrical, they do offset one another to a considerable extent.²¹ An institution offering a combined product could in effect allow a larger loan payout for a given amount of equity and/or charge a lower premium for long-term care coverage. (Spillman, Murtaugh, and Warshawsky (2000) have shown that a combined annuity/long-term care insurance product would offer similar advantages, again achieving savings by offsetting underwriting risks.) A combined product could also have much lower compounding interest costs than an HECM alone, since pay-outs would not begin until the participants actually began to use long-term care and—assuming this occurred close to the end of life—recovery of equity would come relatively quickly.

The design of a combination product raises numerous administrative, regulatory, and taxation issues that are beyond the scope of this paper. Still, it seems likely that this approach would be much more affordable and attractive than the current two-transaction system.

Rate increases

Under most state laws, an insurer selling long-term care insurance cannot increase the premium for any individual because he or she grows older or develops health problems after buying the coverage. However, the insurer may

impose a general rate increase applicable to an entire class of purchasers if it can show regulators that more revenue is needed to cover current or future costs. While insurers are supposed to set their initial premium rates at levels sufficient to cover their ultimate projected costs, this is difficult because long-term care insurance is a fairly new product. Until recently, insurers lacked sufficient experience to accurately estimate revenue requirements. Some less scrupulous insurers have deliberately “low-balled”—offered unrealistically low initial premiums to gain market share, knowing that they might have to raise rates later on. Stronger regulation and the threat of policyholder suits may have discouraged some abusive practices, and insurers today have more experience to work from. Still, pricing of long-term care policies remains subject to considerable uncertainty.²²

While rate increases are a risk for any long-term care insurance purchaser, the marginal buyers who could afford insurance only by using an HECM would certainly be more seriously affected. Someone who uses fixed monthly payments from an HECM to pay premiums could find, after one or more rate increases, that this payment was no longer sufficient. The buyer would have to meet the increase by using other resources or stop paying premiums. This does not mean that the buyer would lose coverage entirely. The 2000 amendment that waives the upfront mortgage insurance premium when an HECM is used for long-term care insurance specifies that the policy

purchased with the HECM must have a “contingent nonforfeiture” benefit.

Like a regular nonforfeiture benefit, a contingent nonforfeiture benefit provides some ongoing coverage with reduced benefits—for example, a lower daily benefit amount or a shorter term of coverage—to a policyholder who has stopped paying premiums. However, while regular nonforfeiture is available to anyone who stops paying premiums, contingent nonforfeiture is available only if the policyholder stops paying premiums after a rate increase exceeding a specified threshold.²³ This provision offers some protection, but would still leave buyers having traded a large claim on their home for a lower benefit than anticipated.

Because the mortgage insurance premium waiver is available only if *all* loan proceeds are used for insurance, a borrower would presumably take out a mortgage exactly sufficient to pay for the selected policy, even if a larger maximum loan was available.²⁴ Some of these borrowers might be able to meet future premium increases by increasing the size of their HECM. Buyers already using their full initial maximum

loan might qualify for a larger loan if their home’s value had increased.²⁵ In either case, however, the borrower would have to refinance, incurring new loan origination fees and other closing costs.²⁶ It might be possible to modify HECM rules to allow no-cost or reduced-cost revisions in loan amounts after premium increases.

Alternatively, the requirement that all HECM proceeds be used for insurance might be modified. As HUD (2002) points out, this requirement may deter borrowers who would be willing to take out an HECM both for insurance and for other needs, but would not borrow for insurance alone. In addition, because long-term care insurance policies rarely cover the entire cost of care, borrowers might need to use some of their available HECM funds to supplement policy payments (Stucki 2004). The current rule might be replaced by a requirement that at least a portion of loan proceeds go to pay for a policy meeting some minimal standard, leaving the use of the rest to the borrower’s discretion.

Conclusion

Home equity makes up an important share of the total wealth of many older households. While HECMs are costly, they could help finance long-term care for a substantial number of households. Use of this funding source could help disabled people remain at home and enhance their ability to direct their own care. However, because available funds for many potential borrowers are limited, many would exhaust their loans if they needed intensive care or required services for a long period. For these borrowers, the HECM would merely postpone, rather than obviate, the need for Medicaid assistance. And, because repayment of an HECM would draw on home equity that might otherwise have been recovered by the state, it is not clear whether the postponement would always save Medicaid any money.

Congress has modified HECM rules to encourage people to use an HECM to buy private long-term care insurance. While HECMs would improve the affordability of insurance, this way of paying for coverage is costly, inefficient, and unattractive. Major changes, such as development of a combination loan/insurance product and further modifications of HECM rules, are likely to be needed before this would be a workable option for many people.

Finally, all of the estimates in this report reflect the financial situation of older households in 2000. Even if HECMs can play a meaningful role in financing long-term care for current

retirees, they may not help meet the future needs of people not yet at retirement age. Many current retirees have pension income, while workers retiring in the future are more likely to have to rely on savings alone to meet basic expenses. A recent study by the Employee Benefit Research Institute concludes that current workers are not saving enough to meet their likely expenses in retirement, and that the shortfalls cannot be entirely made up even by annuitizing or liquidating their housing equity (VanDerhei and Copeland 2003).

Moreover, future home values are unpredictable. While analysts debate whether today's home prices reflect a "housing bubble," changes in demographics and in buyers' preferences may mean that the houses current workers own will not necessarily be the houses the next generation will want to buy (Riche 2003). It may not be sensible for individuals—or policymakers—to make plans on the assumption that housing wealth will always grow.

Reverse mortgages could certainly be an important resource for at least the current generation of older people. Those with long-term care needs should be encouraged to investigate the HECM option, and ways of improving the interface of HECMs and long-term care insurance should be explored. However, it seems unlikely that HECMs will play a very large role in meeting future demand for long-term care services.

Appendix: Data and Methodology

All estimates in this report are based on data from the 2000 wave of the University of Michigan Health and Retirement Study (HRS), a longitudinal study sponsored by the National Institute on Aging. Available HECMs were calculated for eligible respondents in the HRS using the following assumptions.

Mortgage limits. FHA sets mortgage limits by county, but the HRS does not identify respondents by county or even state. A single national limit of \$150,000 was applied to all cases. This is close to the national average FHA limit for 2000, weighted by elderly people in a county, \$152,041. About 21 percent of older households in the HRS had gross equity exceeding the \$150,000 limit. About 30 percent of actual HECM borrowers have gross equity exceeding the local loan limits (HUD 2002); this reflects the fact that actual borrowers tend to have higher-valued houses than all older homeowners.

Interest rates. Two different rates are used in HECM calculations. The current ARM rate determines monthly interest charges on the outstanding loan balance and monthly growth in the available line of credit. This is based on the U.S. Treasury Securities

Rate adjusted to a constant maturity of one year, 1.23 percent as of April 2, 2004. The “expected average interest rate” is used in determining the initial principal limits and calculating the servicing fee set-aside and the maximum monthly tenure or term payments at the time of closing. This rate is based on the U.S. Treasury Securities Rate adjusted to a constant maturity of ten years, 3.95 percent as of April 2, 2004. For both rates, the lender adds a margin; the median value is 1.6 percentage points (Abt 2000). Estimates in this report use rounded figures of 2.8 percent for the ARM rate and 5.5 percent for the expected average rate.

Closing costs and set-asides. The upfront mortgage insurance premium is set at 2 percent of the maximum loan amount; this cost is omitted in the calculations for long-term care insurance. The loan origination fee is set at the greater of \$2,000 or 2 percent of the maximum loan amount, following current FHA policy. Closing costs are set at \$600 plus 0.8 percent of the maximum loan amount; this follows the method of the most widely used commercial HECM calculator (Abt 2000). Service fees are assumed to be \$30 a month.

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Notes

1. Most of the information in this section is drawn from HUD (1994).
2. The lowest limit is 48 percent of the national limit set by Freddie Mac (the Federal Home Loan Mortgage Corporation) for the loans it insures. In areas where the median home value is above this floor, the limit is the lower of 95 percent of the median home value or 87 percent of the Freddie Mac limit (HUD 2003).
3. This is 100 percent of the national Freddie Mac limit.
4. A fixed rate option exists. However, nearly all banks sell their HECMs to Fannie Mae, which has a policy against purchasing fixed rate HECMs because of concerns about “interest rate risk” (HUD 2000). This is the risk, under fixed-rate mortgages, that a lender will have to pay a higher interest rate to depositors or investors than it is receiving from borrowers (Phillips and Gwin 1992).
5. The difference between these rates and their use in computations is discussed in the appendix.
6. In addition, any needed home repairs must be financed from the initial draw. These costs cannot be estimated using the HRS data. The average property with an HECM issued in 1999 required \$666 in repairs (HUD 2000).
7. HUD estimated in 1999 that 1.45 million elderly people lived in housing units needing repair or rehabilitation. Among homeowners in “severely inadequate” units, 60 percent had less than \$25,000 in income or accumulated assets (HUD 1999).
8. A household with assets below this level would spend down to the Medicaid resource limit (\$2,000 for individuals, \$3,000 for couples) within about 6 months, assuming home care costs of \$2,000 a month. Of course some households might have resources below \$15,000 because they have already spent their assets for long-term care; this spending might have been averted if they had drawn on an HECM. However, there is no ready way of estimating the number of such households. In addition, as will be seen, Medicaid might or might not benefit if an HECM substitutes for spenddown.
9. The amount can be stretched slightly by taking the loan draws as a series of monthly payments, instead of as a one-time withdrawal, because the loan limit (the original maximum loan minus amounts already drawn by the borrower) increases each month at a rate equal to the interest rate charged on the loan. For example, someone with a maximum initial draw of \$25,000 could choose 24 monthly payments of \$1,102.50, for total proceeds of \$26,460. However, the cost of home care would also be rising during the 24-month period. The following discussion assumes that the two effects simply cancel each other out.
10. Many of these households have assets below the \$5,000/\$10,000 thresholds used earlier to screen out potential Medicaid eligibles, but have income above the poverty level.
11. <http://www.medicare.gov/LongTermCare/Static/HomeEquityConv.asp?dest=NAV%7CPaying%7CHomeEquity#TabTop>.

12. Medicaid income determination methods for the elderly are bound by guidelines for the Supplemental Security Income (SSI) program. The Social Security Administration (SSA) has explicitly said that payments from a reverse mortgage are not countable as income under SSI. See the SSA Program Operations Manual System, SI 01140.300, Promissory Notes and Property Agreements, available at <http://policy.ssa.gov/poms.nsf/lnx/0501140300> (accessed June 2004).
13. Under “spousal impoverishment” rules, the community spouse of an institutionalized Medicaid beneficiary may retain much larger sums.
14. There are some additional waivers for cases of undue hardship, for example when a family business or farm is involved, or when recovery is not cost-effective.
15. This simple example does not take account of the fact that, if the state starts paying for care a year earlier, it theoretically loses a year of interest income on the money it pays out. After correcting for this, the savings from not using a reverse mortgage are \$6,438 (if the state could have earned the same 2.8 percent interest used in computing the HECM balance).
16. These are the rates in 2004 for a policy providing a \$100 daily benefit for three years, with a 90-day waiting period and compound inflation protection.
17. This assumes that couples will cover both spouses. Some couples do buy coverage for only one spouse; for reasons discussed below, this may not make sense under a reverse mortgage program.
18. The total is slightly higher than the target population in Table 7, because the mortgage insurance premium waiver allows some people to qualify who would otherwise have had a zero net initial draw.
19. Modeling of the not very stringent federal program “short-form” rules, using the 1996 Medical Expenditures Panel Survey, found that 28 percent of people aged 65 to 69 would fail underwriting (Merlis 2003). The test used here rejects only 15 percent of people in the same age range.
20. This means that premium rates in effect in 2004 are being measured against income and equity data from 2000. However, unlike health insurance premiums, long-term care insurance premiums for a given coverage level do not routinely go up every year. If the premiums are correctly calculated now, there is no reason to suppose they would have been lower in 2000.
21. One important caveat is that, if long-term care insurance lets people stay in their homes longer, it will increase the longevity risk for the mortgage (HUD 2002), but only by the average claim duration for the policy.
22. For a fuller discussion of this issue, see Lewis, Wilkin, and Merlis (2003).
23. The National Association of Insurance Commissioners model long-term care insurance regulations use age-based thresholds, on the assumption that younger buyers can afford bigger increases than older ones. So contingent nonforfeiture must be offered when premiums have had a cumulative increase of 150 percent for a policyholder aged 40-44 or 20 percent for a policyholder aged 80.
24. Borrowers could opt to use a line of credit, instead of fixed payments, meaning that they could increase their monthly draws if premium rates went up. But this could also be risky, because line of credit growth is subject to fluctuations in the ARM interest rate.
25. “Shared appreciation” HECMs, which allow loan revisions when the property appreciates, exist in theory; however, Fannie Mae will not buy these loans.
26. Because the new loan would still be used wholly for insurance, it would presumably still receive the upfront premium waiver.

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About the Project

The *Georgetown University Long-Term Care Financing Project* pursues analysis designed to stimulate public policy discussion about current long-term care financing and ways to improve it. The project is supported by a grant from the Robert Wood Johnson Foundation. Additional publications are available at <http://ltc.georgetown.edu>.



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