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Living at Home Brings Peace of Mind

Long-term care and reverse mortgages create the ideal partnership for seniors wanting to stay in their homes

by Michael Banner

[**Editor's Note:** This article is reprinted with permission. It was initially published in the May 2011 issue of *The Reverse Review*. For more information, visit *www.reversereview.com.*]

As most of you know, I feel very strongly that educating the trusted senior advisors in this nation on the true strengths of the reverse mortgage is the single most important factor of our industry's survival and growth. Until we show the financial community that the reverse mortgage is not just a "needs-based product" or "product of last resort," the struggles we are all facing right now will continue, or even worsen.

No consultant is looked to more in a senior's life as his or her long-term care advisor.

In the past I have written about the relationship of long-term care and reverse mortgages and I was very surprised at the negative comments I received. I have referred to the Use Your Home to Stay at Home study that was completed by Dr. Barbara Stucki and the National Council on Aging (NCOA), endorsed by many major players in our industry, including the MetLife Mature Institute. I was still accused of using this study as a "sales pitch" for reverse mortgages.

Fear and ignorance (that's right, I said it) seem to be running rampant in our great industry as guidelines and new regulations continue to tighten around us.

But this is an important subject and it deserves to be discussed.

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Simple Into Exquisite

by Brad S. Linder

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Potluck dinners often have a negative connotation associated with them. You don't know what you are going to eat there; most attendees pray rather heavily that there will be at least one appetizing and edible offering at dinner. Ironically, "potluck" implies a heavy dash of randomness; are potluck dinners really all that random in what they offer? Maybe it has been a clever way for the host or hostess to avoid committing to a menu prior to the actual dinner event. It does appear that the common attitude of most attendees is that they hope that they won't be starving themselves during the evening! If you're an invited guest to this type of dinner, ever notice how quickly the hostess is asked, "What can I bring to the dinner to help out?" Attendees often create a kind of dinner insurance. At least they'll know there will be at least one reliable food they can consider edible!

While the actual offerings at the potluck dinner may be as simple as meat loaf rather than filet mignon, mashed potatoes rather than scalloped potatoes au gratin, and succotash rather than cauliflower with hollandaise sauce, the key to an excellent potluck dinner is the imagination and skill of the cooks. It is the cook that turns the simple into exquisite. The simple offerings have beaten out the complex often enough.

Our cooks for this issue of the *Long-Term Care News* are Michael Banner, Eric Stallard, Etienne Dupourqué, and our Chairperson's Corner by David Benz. Each will whet the appetite for more information, more discussion on long-term care (LTC).

Reverse mortgages (RM) used for funding LTC is an interesting concept and actual practice in the United States. Is this a marriage of convenience? Michael Banner presents arguments starting off the debate over whether RMs and LTC will remain married happily ever after.

Eric Stallard presents a summary of a paper presented at the Society of Actuaries' Living to 100 Symposium held this past Jan. 5–7, 2011 in Orlando, Florida. He discusses the impact of obesity and diabetes on LTC disability and mortality. Yes, I have a number of questions I would like to ask Eric about ... I hope that you will too!

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This newsletter is free to section members. Current issues are available on the SOA website *(www.soa.org)*. To join the section, SOA members and non-members can locate a membership form on the LTCI Web page at *www.soaltci.org*.

Etienne Dupourqué describes complexities and difficulties of LTC in France. For me, this starts an extremely interesting compare/contrast with the way we accomplish LTC in the United States. This has certainly highlighted the problems and handicaps each country has to deal with. Both countries have significant current turmoil; each has some unique circumstances in demography, government and social considerations. I have a number of questions for Etienne; he's led me to additional information. He reports that, "France is still reviewing its long-term care system. [He] just finished reading through a report from the French Senate, and [he is] about to read the House of Representative report." Also, "the French actuarial institute should release shortly a report on long-term care." Although Etienne breaks open the start of the discussion in his article, there's a large amount of information yet to consume and digest. And, I believe that it is worth the effort of your future understanding on this topic. He hopes to prepare a second course for your consumption in a following issue of our newsletter.

Many thanks go to our esteemed chefs. Bon appétit! ■

Etienne Dupourqué describes complexities and difficulties of LTC in France.

Industry Check-Up

by David R. Benz

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I am in the middle of reading *Those Guys Have All the Fun: Inside the World of ESPN*. The book details the rise of ESPN from the days when its survival seemed a day-to-day question to its current domination of the world of sports. The authors identify nine key milestones along ESPN's climb. One can roughly group those nine milestones into four categories: investment, legitimacy, execution and promotion. So, how is our industry doing in those areas?

INVESTMENT

Through the 1990s our industry grew steadily, attracting a number of new insurers into the market. While sales were concentrated among a smaller number of industry leaders, there were years with over 100 companies offering long-term care insurance (LTCI). Those days are past as supply has contracted significantly in the last dozen years. Right now, LTCI is viewed somewhat negatively by many insurance company executives and rating agencies leading to few new entrants. On a positive note, carriers are packaging long-term care coverage with life insurance and annuities, demonstrating recognition of the need and desire to provide a solution, even if it is not a traditional stand-alone product.

LEGITIMACY

There are two sides to this coin. The continued existence of the industry in itself somewhat validates the idea there is a risk society faces and a solution the private market can offer. Public-private partnerships—in promotion and the offering of solutions—show widespread approval for a role for the private sector. Finally, after many years of sales declines, we see upward movement that may be signaling more consumer interest and acceptance of our products. However, the threat of negative publicity from rate increase and claim handling actions remind us that we hold the public's trust very lightly these days.

EXECUTION

As with any new industry, our past is littered with "learning experiences." Underwriting, pricing, marketing and claims adjudication certainly had their share of challenges. The great news is that those remaining in the industry have been able to learn from the past and use that to develop responsibly priced and marketed products that are underwritten and adjudicated using the current industry best practices. We need to continue to build on these strengths. We may need to develop new products and approaches to reach untapped markets. I believe we have the expertise and passion within this industry to move it beyond our past to new heights.

PROMOTION

Attendees at past ILTCI conferences heard the call for an industry "Got Milk?" campaign. Now, with the "3in4 Need More" effort, we get our chance to see if an effort not affiliated with a specific company can raise awareness and drive people to take action. Additionally, the industry may be able to capitalize on publicity around CLASS [1] to have discussions with the public about long-term care risks and the actions they can take. The challenge will be to take increased awareness and help consumers take positive action toward protecting their futures.

It certainly is an interesting time for our industry as we face a future with trials and hope. I believe we are up to the challenge.

END NOTES

[1] Editor's Note: The CLASS Act is the Community Living Assistance Services and Supports program. It is part of the Patient Protection and Affordable Care Act (2010), as amended by the Health Care and Education Reconciliation Act of 2010.

I think one of the greatest misconceptions is that the long-term care industry is often confused with long-term care insurance. And of course, if we talk about any insurance in the same sentence as a reverse mortgage, the fear I mentioned above turns into pure panic as the thought of cross-selling sends everyone into their homes to hide under their beds. But we will leave this subject for last.

The truth of the matter is, the long-term care industry has many facets of which insurance is just one. In-home care (which is not always covered by Medicare), for the elderly population is by far the largest segment of long-term care and touches so many families worldwide.

The Use Your Home to Stay at Home theory is not a sales pitch for reverse mortgages in any way, shape or form. It ultimately offers alternatives to a senior who may not be ready or willing to go into a retirement home.

Obviously health and safety issues for the senior must take precedence even over their desire to remain at home, but there are tens of millions of seniors who are quite able to age in place but are not aware of the services available to assist them in that goal, and if they are aware, they feel as if they are unable to afford them. Making their home a safe and secure place for them to be during this portion of their lives when their health may be declining is a very obtainable goal. Bringing professional services into the home is a very viable option for many seniors. The standard thought process for this has always been to assume that Medicare and some type of Medicare supplemental policy would cover these services, but in fact that is not true.

Having a health care professional come to your home on a weekly basis to monitor medications, check vital signs and attend to basic needs certainly has a cost to it, but in comparison to the average cost of a living facility in this nation, it is a very viable option.

Making a senior's home safer and easy to navigate can also be an expensive endeavor but may be well worth the investment for a senior to maintain their independence and live where they feel most comfortable.

Here are a few examples of what can be done:

1. Replace an old-fashioned tub with a step-in shower with a built-in seat.
2. Install handrails in the shower, next to the toilet and possibly in the hallways.
3. Install ramps between bedrooms and living areas of the home.
4. If the master bedroom is located upstairs, a chair-lift can make life so much better.

These are just a few options of what can be done for a senior to allow them to stay in their home and have the peace of mind to know they are safe.

Now, let's talk about the elephant in the room. Is it legal, ethical or moral to use the proceeds from a reverse mortgage to purchase long-term care insurance?

For those of you who are not involved in the long-term care insurance industry, it is being totally reshaped at this point in time (much like the mortgage industry). Major carriers have withdrawn from the market; premiums are being increased at record levels; and present products are being scrutinized. Yet many great long-term care insurance products still exist. Let's look at a few of the options available today.

Certain linked products have gained popularity over the last 18 to 24 months. A linked product is defined as one that offers two separate financial vehicles within the same policy. It could be the combination of long-term care insurance and life insurance, or it could be the combination of long-term care and an annuity product.

These products are single-premium, and require a sizable upfront investment. They offer "multiples" of coverage for long-term care and life insurance depending on the client's age and health. In the case of the linked annuity product, there is usually a guaranteed interest rate of return as well.

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Is it legal, ethical or moral to use the proceeds from a reverse mortgage to purchase long-term care insurance?

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Is it logical for a person to secure a fixed-rate reverse mortgage and use the proceeds to fund one of these products? I have done much research on this and I must say that in most cases it is not a good decision. There are times it may make sense, but under most circumstances the long-term costs of the reverse mortgage outweigh the potential benefits of the policy.

Still, as these products continue to evolve, we should all stay informed on the rates of returns and the multiples they offer.

And what of the traditional long-term care insurance products; the five-, seven- and 10-year pay periods?

Does it make sense to fund these monthly insurance premiums with the proceeds of a reverse mortgage? Well, even though this may appear to be a simple "yes" or "no" question, it is not. The answer to this question depends on many variables: the age and health of the clients; the amount of the monthly premiums; the amount of the benefits of the proposed policy; their present level of income and assets; and whether they have allocated a certain amount of their assets for long-term care or unplanned medical expenses.

The answers to these questions determine if using a reverse mortgage to fund long-term care insurance makes sense for that individual scenario. To take a position of yes or no on this very important decision without knowing all the facts above (and more) is not only wrong; it is short-sighted and narrow-minded.

Improper cross-selling—cross-selling of products to earn a fee or a commission that does not truly benefit the client's quality of life on a long-term basis—is wrong, unethical and immoral. But the cross-selling of a product—any product—that truly benefits the client, protecting his current assets and offering protection against the ever-rising costs of health care in this country at a time when the client's assets are diminishing is well worth considering!

Reach out to the long-term care experts in your community. We may not be qualified to answer many of the questions above, but they are. Don't turn a blind eye to helping seniors in this fashion because the phrase "cross-selling" brings fear to so many in our industry.

The bottom line is modern medicine and scientific breakthroughs have extended life spans way beyond what was predicted. This fact has brought the reverse mortgage from relative obscurity right to the forefront of the industry. Unfortunately it has also brought us under the microscope of certain members of Congress and regulators to make sure we do what's right. That is why we must always put the client's needs first.

Suitability, suitability, suitability…

That same modern medicine and those same scientific breakthroughs are also causing the long-term care insurance industry to totally rethink their product. We serve the same people! We have the same goals! Shouldn't we be working together?

Here's my best advice, which I learned from Tony Robbins: "The mind is like a parachute; it works best when it is open."

Have a great month and let's help as many seniors, in as many ways, as we can. ■

The Impact of Obesity and Diabetes on LTC Disability and Mortality:

POPULATION ESTIMATES FROM THE NATIONAL LONG-TERM CARE SURVEY *

by Eric Stallard

[**Editor's Note:** This is a summary of a paper presented at the Society of Actuaries' Living to 100 Symposium held on Jan. 5–7, 2011 in Orlando, Florida. The full paper was published as part of the 2011 Living to 100 Symposium Monograph and can be found at *http://www.soa.org/livingto100monographs.*]

The primary contribution of the paper was its quantitative assessment of the separate and joint effects of obesity and diabetes using common definitions of disability applied to a common dataset. The paper provided new estimates of the effects of obesity and diabetes on long-term care (LTC) disability and mortality, based on data from the 2004 National Long-Term Care Survey (NLTCS), with the criteria for LTC disability based on the Health Insurance Portability and Accountability Act (HIPAA) of 1996 activities of daily living (ADL) and cognitive impairment (CI) benefit triggers.

Such estimates can be used to improve current projections of disability and mortality risks; to develop more accurate assessments of the benefits of intervention programs designed to slow down or reverse the increasing rates of obesity and diabetes; and to improve the accuracy of actuarial models used for LTC insurance pricing and reserving.

A useful byproduct of the analysis was that the reweighting methods developed to generate these estimates from the NLTCS have applicability beyond the current analysis; they may be used to expand the range of applications of the NLTCS detailed interviews to include estimates for all elderly persons, not just those who met the disability screening criteria. Such applications can be implemented by LTCI actuaries using publicly available copies of the NLTCS.[1]

METHODOLOGY

The objective of this study was to estimate the impact of obesity and diabetes on LTC disability and mortality above age 65 using the 2004 NLTCS.

The disability classifications were based on the HIPAA ADL and CI triggers. Two types of disability qualify for tax-qualified LTCI benefits under HIPAA: (1) specified limitations in activities of daily living (ADL trigger); and (2) severe cognitive impairment (CI trigger). Nearly half (47 percent) of disabled persons in the 2004 NLTCS met the HIPAA requirements for both the ADL and CI triggers simultaneously.

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Vital status was assessed through the first anniversary of the date of the NLTCS interview using linked vital statistics micro-data files obtained from the Medicare program.

Obesity and diabetes were assessed using self-reported medical conditions and health care provider-reported medical diagnoses from Medicare files linked to the NLTCS. Obesity was also assessed using self-reported height and weight in the NLTCS detailed community interview to construct measures of body mass index (BMI) at three time points: currently, at age 50, and one year prior to the NLTCS interview. Standard BMI cut-points were used to define obesity (BMI $\geq$ 30) and non-obesity (BMI $<$ 30) for use in comparisons with self-reported and health care provider-reported obesity.

HIPAA ADL TRIGGER

The HIPAA ADL trigger requires that the individual be unable to perform at least two out of six basic ADLs (bathing, dressing, toileting, transferring, continence and eating) without "substantial assistance" from another individual, for at least 90 days due to a loss of functional capacity.

To simulate the HIPAA ADL Trigger using the NLTCS, the questionnaire responses for each of the six ADLs were classified according to the highest value indicated in the following hierarchy:

0. Performs ADL
1. Needs help with ADL, but does not receive it
2. Performs ADL with special equipment
3. Performs ADL with standby help or oral cues, with or without special equipment
4. Performs ADL with active or hands-on help, with or without special equipment
5. Unable to perform ADL.

An ADL was coded as "severely impaired" when the selected value for that ADL was 3 or higher. When two or more ADLs were coded as "severely impaired," then the HIPAA ADL trigger was assumed to be met.

HIPAA CI TRIGGER

The HIPAA CI trigger requires that the individual requires "substantial supervision" to protect him/herself from threats to health and safety due to "severe cognitive impairment," defined as "a loss or deterioration in intellectual capacity that is comparable to (and includes) Alzheimer's Disease and similar forms of irreversible dementia" that is "measured by clinical evidence and standardized tests that reliably measure impairment."

To simulate the HIPAA CI trigger using the NLTCS, the responses to the 10-item Short Portable Mental Status Questionnaire (SPMSQ) were coded according to the following hierarchy:

0–2 errors	=	unimpaired
3–10 errors	=	cognitively impaired.

Respondents with a proxy interview due to dementia, Alzheimer's Disease, or other cognition problems sufficient to prevent completion of the SPMSQ with a passing score of 0–2 errors were also coded as cognitively impaired.

The need for substantial supervision was not directly assessed in the NLTCS. Instead, the requirement for substantial supervision was implemented indirectly by restricting the simulated HIPAA CI trigger to cognitively impaired respondents who met (1) the NLTCS criteria for any basic or instrumental ADL disability at the screener interview (which then qualified them for the detailed interview, including the SPMSQ), or (2) the NLTCS criteria for instrumental ADL disability or indoor mobility impairment at the detailed interview, or (3) the HIPAA criteria for at least one basic ADL disability at the detailed interview.

In addition to the six basic ADLs noted above, nine instrumental ADLs (IADLs) were considered in these assessments: housework, laundry, cooking, grocery shopping, outside mobility, travel, money management, taking medications and telephoning. Each IADL has a cognitive component such that an individual who could successfully complete all nine without any help was assumed to be without need for substantial supervision, even if cognitively impaired according to the SPMSQ.

DIABETES

The presence of diabetes was established using

… Nine instrumental ADLs (IADLs) were considered in these assessments: housework, laundry, cooking, grocery shopping, outside mobility, travel, money management, taking medications and telephoning.

(1) self-reported medical conditions and (2) health care provider-reported medical diagnoses from Medicare files linked to the NLTCS.

The self-reported conditions were based on affirmative answers to the question: Do you now have diabetes? This question was asked on both the community and the institutional forms of the detailed NLTCS interviewing instruments. This question was not asked on the NLTCS screening instrument, which means that persons who screened-out of the initial NLTCS disability assessment had unknown status with respect to the presence of self-reported diabetes, except for a subgroup of 17 percent of such persons, as discussed below.

SELF-REPORTED OBESITY/ OVERWEIGHT

Self-reported obesity/overweight was based on affirmative answers to the question: Do you now have obesity or are you overweight? The obesity/ overweight question was asked on both the community and the institutional forms of the detailed NLTCS interviewing instruments, but not on the NLTCS screening instrument.

SELF-REPORTED BMI OBESITY

The NLTCS detailed community interview asked about the respondent's current height (inches), current weight (pounds), weight at age 50, and weight one year prior. Body Mass Index (BMI) was computed for each weight and time as:

$$BMI = Weight/Height^2 \times 703.07,$$

scaled to metric units (kg/m^2). Self-reported BMI obesity was defined as $BMI \geq 30$.

SURVEY WEIGHTS

Survey weights were employed as described by Manton and colleagues.[2] Standard errors ("s.e.'s") of weighted estimators of binomial proportions were based on rescaled sample weights using procedures described by Potthoff and colleagues.[3]

Application of these procedures within age groups yielded an estimated overall design effect of 1.11, which implied that the variances were 11 percent larger, and the effective sample size 10 percent smaller, than under a simple random sampling design with the same sample size, but with equal weights.[4]

An additional reweighting of the survey weights was done for a subset of the detailed community sample comprising approximately 17 percent of respondents who were rejected by the NLTCS screener protocol used for the initial disability assessment. The complementary 83 percent of screen-out respondents were then dropped from the analysis, reducing the total sample size from 15,993 to 6,171 respondents, of whom 5,201 were community residents at the time of interview.

The second reweighting was required because the measures of BMI in the NLTCS were restricted to respondents to the detailed community interview, and because the self-reported measures of obesity/ overweight and diabetes were restricted to respondents to the detailed community or institutional interviews.

The second reweighting raised the detailed community overall sample design effect from 1.11 to 1.90, implying that the effective size of the detailed community sample was reduced from 5,201 to 2,739 respondents.

RESULTS

Comparisons of the self-reported and health care provider-reported medical conditions were presented in the full paper where it was found that diabetes self-reports were confirmed in the Medicare reports but obesity reports were not. Hence, the remainder of the paper analyzed the impact of self-reported obesity and diabetes on disability and death.

Table 1 on page 10 displays actual and expected disability and mortality outcomes for self-reported obesity/overweight and diabetes in the combined population-weighted community and institutionalized NLTCS sample, where the effective sample size was 3,120.

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Comparisons of the self-reported and health care provider-reported medical conditions were presented in the full paper where it was found that diabetes self-reports were confirmed in the Medicare reports but obesity reports were not.

Table 1. Actual and Expected Health Outcomes for Persons with Self-Reported Obesity/Overweight and Diabetes in the NLTCS; Reweighted to U.S. 2004 Unisex Population, Age 65 and Above

	Self-Reported Medical Condition							
Outcome	Actual (A)	Expected (E)	A/E Ratio	s.e.(A/E)	A − E	Percent of Total[1]	s.e.(Pct. of Total)	Effective N
	Obesity/Overweight							
Diabetes	2,258,554	1,031,473	2.19	0.20	1,227,081	19.95%	2.62%	3,120
HIPAA Disability	604,790	540,425	1.12	0.17	64,365	1.76%	2.51%	3,120
Death	192,011	311,628	0.62	0.17	-119,617	-6.60%	3.22%	3,120
	Diabetes							
HIPAA Disability	900,089	453,785	1.98	0.26	446,305	12.21%	2.71%	3,120
Death	422,549	236,910	1.78	0.36	185,639	10.24%	4.10%	3,120

Note 1: The referenced total is the weighted sum of the indicated outcomes for persons with and without the indicated self-reported medical condition in the NLTCS.

Source: Author's calculations based on the 2004 NLTCS.

The impact of each condition was quantified by the ratio of the actual to expected outcome counts (A/E ratios), with the expected disability or mortality counts among diabetics generated by application of the age-specific non-diabetic disability or mortality rates to the age-specific diabetic population counts. Similar procedures were employed for comparisons of obese and non-obese subpopulations.

The A/E ratios for diabetes were 1.98 and 1.78, respectively, for disability and death, indicating that diabetics were 98 percent more likely than non-diabetics to meet the HIPAA disability trigger and 78 percent more likely than non-diabetics to die within one year after the NLTCS interview.

The A/E ratios for obesity/overweight were 2.19, 1.12 and 0.62, respectively, for diabetes, disability and death, indicating that obesity/overweight had a strong unfavorable impact on diabetes, a small (non-significant) impact on disability, and a favorable impact on mortality.

This latter outcome has been termed the "obesity paradox." The explanation is not that obesity is healthy but instead is that low weight and weight loss among the elderly often result from major chronic disease processes involving the heart, lungs, kidney and other vital organ systems.[5]

The finding that the impact of obesity/overweight on disability was small or neutral was consistent with the explanation of the obesity paradox for mortality, and also with the strong unfavorable impact on diabetes, which provides a pathway for obesity to unfavorably impact disability, counterbalancing the disabling effects of chronic disease processes associated with low weight and weight loss.

The relative differences between the actual and expected disability or mortality counts in the diabetic population represent the fractions of disability or mortality attributable to diabetes (or to health status differences associated with diabetes); a similar interpretation applies to relative differences in comparisons of the obese and non-obese subpopulations.

Table 1 shows that 12 percent of disability was attributable to diabetes and 20 percent of diabetes was attributable to current obesity/overweight.

Table 2 displays the A/E ratios for various alternative measures of obesity from the NLTCS detailed community interview using BMI at age 50, BMI one year prior to the interview, and BMI at the time of the interview ("current obesity").

Table 2. Actual and Expected Health Outcomes for Non-institutionalized Persons with Self-Reported BMI Obesity, Obesity/Overweight, and Diabetes in the NLTCS; Reweighted to U.S. 2004 Unisex Noninstitutionalized Population, Age 65 and Above

Outcome	Actual (A)	Expected (E)	A/E Ratio	s.e.(A/E)	A − E	Percent of Total[1]	s.e.(Pct. of Total)	Effective N
				Self-Reported Medical Condition				
				Obesity (BMI ≥ 30) at Age 50				
Diabetes	1,393,590	527,724	2.64	0.27	865,866	16.41%	2.22%	2,399
HIPAA Disability	381,210	164,023	2.32	0.46	217,187	12.03%	3.63%	2,399
Death	141,157	121,630	1.16	0.37	19,527	1.65%	3.63%	2,399
				Obesity (BMI ≥ 30) One Year Prior				
Diabetes	2,119,959	972,825	2.18	0.21	1,147,134	20.69%	2.87%	2,557
HIPAA Disability	425,541	322,883	1.32	0.27	102,657	5.00%	3.92%	2,557
Death	166,985	247,448	0.67	0.21	-80,463	-6.21%	4.25%	2,557
				Current Obesity (BMI ≥ 30)				
Diabetes	2,165,735	937,273	2.31	0.22	1,228,462	21.51%	2.75%	2,607
HIPAA Disability	437,541	307,014	1.43	0.28	130,527	6.15%	3.78%	2,607
Death	135,350	237,222	0.57	0.20	-101,872	-7.71%	3.84%	2,607
				Obesity/Overweight				
Diabetes	2,173,088	985,437	2.21	0.21	1,187,651	20.33%	2.74%	2,739
HIPAA Disability	407,848	359,490	1.13	0.23	48,358	2.09%	3.48%	2,739
Death	148,383	251,796	0.59	0.20	-103,413	-7.49%	3.92%	2,739
				Diabetes				
HIPAA Disability	612,098	281,513	2.17	0.37	330,585	14.31%	3.74%	2,739
Death	322,499	181,950	1.77	0.43	140,549	10.18%	4.91%	2,739

Note 1: The referenced total is the sum of the indicated outcomes for persons with and without the indicated self-reported medical condition in the

Source: Author's calculations based on the 2004 NLTCS.

The A/E ratios for current obesity in the non-institutionalized population were similar to those for obesity/overweight, which were almost identical to the corresponding values for the total population (in Table 1). Likewise, the A/E ratios for current obesity in the non-institutionalized population were similar to those for obesity one year prior to the interview.

The A/E ratios for obesity at age 50 in the non-institutionalized population were 2.64, 2.32 and 1.16, respectively, for diabetes, disability and death, indicating that midlife obesity had a strong unfavorable impact on diabetes and disability, and a small (non-significant) impact on mortality. Thus, with the introduction of a measure of midlife obesity, the obesity paradox disappeared as did the prior indication that the impact on disability may be small or neutral.

Obesity at age 50 increased the risk of diabetes and disability, and diabetes also increased the risk of disability. The joint impact of obesity at age 50 and diabetes on disability was assessed in Table 3 using A/E ratios comparing respondents exhibiting each combination of obesity at age 50 and diabetes with those who had neither condition.

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Table 3. Actual and Expected Numbers Meeting the HIPAA Disability Trigger for Non-institutionalized Persons with Self-Reported BMI Obesity at Age 50 and/or Self-Reported Current Diabetes in the NLTCS; Reweighted to U.S. 2004 Unisex Noninstitutionalized Population, Age 65 and Above

Self-Reported Medical Condition(s)	Actual (A)	Expected (E)	A/E Ratio	s.e.(A/E)	A − E	Percent of Total[1]	s.e.(Pct. of Total)	Effective N
	Reference Population: Persons without Self-Reported Current Diabetes							
Diabetes	471,898	220,000	2.14	0.43	251,899	13.96%	4.32%	2,399
	Reference Population: Persons without Self-Reported Obesity at Age 50							
Obesity at Age 50	381,210	164,023	2.32	0.46	217,187	12.03%	3.63%	2,399
	Reference Population: Persons with Neither Self-Reported BMI Obesity at Age 50 nor Self-Reported Current Diabetes							
Diabetes w/o Obesity	302,855	155,393	1.95	0.47	147,462			
Obesity w/o Diabetes	212,167	99,025	2.14	0.53	113,142			
Obesity & Diabetes	169,043	45,920	3.68	1.11	123,123			
Obesity and/or Diabetes	684,065	300,339	2.28	0.34	383,727	21.26%	5.07%	2,399

Note 1: The referenced total is the weighted total number of non-institutionalized persons meeting the HIPAA disability trigger in the NLTCS with known status for both medical conditions.

Source: Author's calculations based on the 2004 NLTCS.

The A/E ratios were 1.95 for diabetes without obesity at age 50; 2.14 for obesity at age 50 without diabetes; and 3.68 for both conditions. The 3.68 A/E ratio for both conditions was consistent with both additive and multiplicative interaction models, implying A/E ratios of 3.09 and 4.17, respectively; the 3.68 value was close to midway (3.63) between these alternatives but the standard errors were too large to make definite conclusions about the form of the interaction.

Table 3 shows that 21 percent of disability was attributable to obesity at age 50 and/or diabetes, substantially more than due to either condition alone (12 percent and 14 percent, respectively).

CONCLUSIONS

The results showed that current obesity was associated with large increases in diabetes, non-significant increases in disability, and substantial decreases in mortality among elderly persons.

Obesity at age 50 was associated with large increases in diabetes and disability, and non-significant increases in mortality among elderly persons. Diabetes was associated with large increases in disability and mortality among elderly persons.

Obesity at age 50 and diabetes were both associated with large increases in disability among elderly persons; tests of the interaction between these risk factors were consistent with both additive and multiplicative models, with the interaction effects falling roughly midway between these alternatives.

The effects of obesity and diabetes were consistent with a complex multistage/multi-path disablement process involving separate and joint effects of obesity and diabetes as initial or intermediate stages in a multistage process leading to disability and death.[6]

LIMITATIONS

The NLTCS is representative of the general U.S. elderly population, for which only a small fraction was covered by private LTCI during the study period. The LTC experience of insured elderly may be substantially different from that of non-insured elderly.

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View Stallard's paper and other papers presented at the Living to 100 Symposium at http://www.soa.org/livingto100monographs. ■

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A Tale of Two Countries

by Etienne Dupourqué

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"You want to make it simple … very simple. So simple that everybody will understand it."

— President Franklin Roosevelt on Social Security, circa 1934, as quoted by Frances Perkins.

"Selons nous, la vie, ses évolutions, les éventuelles dégradations des conditions d'existence ne sont pas des risque assurantiels, ce sont des besoins à satisfaire."

(We believe that life, its cycles, and the eventual degradation of conditions of existence are not insurable risks, they are necessities to fulfill).

—Guy Fischer, Vice-president du Sénat, Sénateur du Rhône, Groupe Communiste Républicain Citoyen et des Sénateurs du Parti de Gauche, January 2011. Rapport d'information fait au nom de la mission d'information sur la prise en charge de la dépendance et la création du cinquième risque.

France is undergoing a review of its long-term care challenges and one option contemplated is to add long-term care to its social security program. One thing is clear: contrary to President Roosevelt, in 2011 a French (or U.S.) president could not give the direction that was given in 1934 to Frances Perkins, who helped set up the U.S. Social Security program. No matter what solution is selected, if any, it will be complex.

France is undergoing a review of its long-term care challenges and one option contemplated is to add long-term care to its social security program.

The quote from Fischer in one of the comprehensive reports prepared by the French Senate on long-term care (the French Senate is not at all the legislative equivalent of the U.S. Senate) may be surprising from a U.S. perspective, but it reflects a widespread belief in France that some aspects of life cannot be securitized.

KEEP THE RASCALS OUT

For many in the United States, the word "government" (or legislative elements like the "CLASS Act") has a negative connotation. In France the word "capital" (insurance companies) is also often mentioned with a shade of suspicion. It does not matter that in both countries everyone enjoys the inevitable effects of these basic elements of modern societies. While the rascals in both countries are different and many efforts are made to keep them at bay, they will not go away. In both countries insurance companies offer significant contributions to the long-term care needs of their citizens, as well as being major actors in the macroeconomic arena.

INFORMATION

Researching long-term care from French sources is very different from researching using U.S. sources. Since the matter is of national planning in France, there is an extensive network of technocratic and national scientific resources; a wide array of studies from a few sources are available, covering not only the financial or quantitative aspect of long-term care, but also the sociological and philosophical implications of an aging society. In the United States, I tend to look at sources such as the Office of Management and Budget, the Congressional Budget Office, or the Centers for Medicare & Medicaid Services, which are very useful to study the magnitude and progress of long-term care costs. It is left to a multitude of other sources such as universities, NGOs or think tanks to shed some light about other aspects of the long-term care question.

A CLIMATIC TRIGGER

In August 2003, over 15,000 additional deaths in France (over 70,000 in Europe) were attributed to a historical heat wave. As a consequence of this climatic disaster which affected mainly the elderly and disabled, France instituted, among other programs, a day of solidarity: each year French workers give up a paid holiday, while companies pay to a fund their savings in payroll excise taxes, amounting to about .3 percent of annual payrolls. This amount, in addition to a tax on investment income, currently comes to over 2 billion Euros (at over 1.4 Euros to the U.S. dollar, the contribution should now be close to $3 billion in U.S. dollars).

A NATION OR A STATE?

With the passing of the World War I generation, French and U.S. demographics follow a similar trend. But comparing France and the United States on demography alone would be misleading. France is now part of a 27-state European Union, and a 17-state Euro currency group. This means that France has one less tool at its disposal to manage its national programs: it cannot issue Euros, nor can it unilaterally change the central bank interest rates. Unlike U.S. states, European countries can-

not yet count on massive transfer of funds from the federal entity, such as Medicare, Medicaid, Unemployment, or Welfare. Practically all social expenses are born by each European country. Also, France has a standing army, as well as a foreign policy. For every Euro spent on education, health care, and public services, the French government spends about 23 cents on defense.

KEY DATES

1945: Social Security established. As of 2010, it consisted of four main insurance programs:

1. Health
2. Retirement
3. Family
4. Workman's Compensation

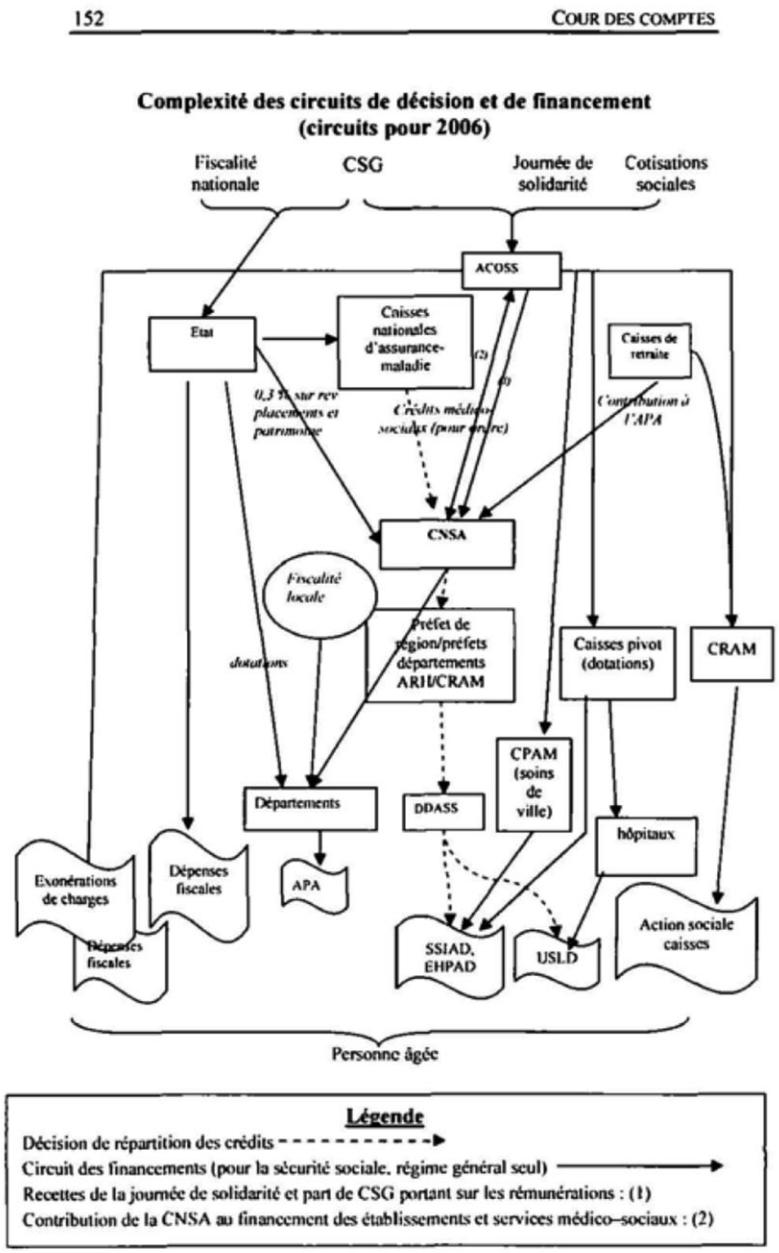
The 2008 financial crisis greatly deepened deficits of the health and retirement funds of the Social Security system, and brought the family and workman's compensation funds into debtor status.

1983: Last French currency devaluation

2002: Euro becomes the official currency.

COMPLEXITIES AND COMPLICATIONS

The following graph illustrates the maze of programs that constitutes the public long-term care financing in France, which amounts to about $35 billion in 2010. This illustration was prepared to incite policymakers to simplify the system; however, as in matters of taxes, one can guess the outcome of such attempts.



Source: "Les personnes âgées dépendantes," "Rapport au president de la république suivi des réponses des administrations et des organismes intéressés," November 2005, p 152, http://www.ccomptes.fr/fr/CC/documents/RPT/Rapport.pdf

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Decoding the acronyms in the graph on page 15:

ACOSS	1994	Agence Centrale des Organismes de Sécurité Sociale
APA		Allocation Personnalisée pour l'Autonomie
ARH		Agence Régionale de l'Hospitalisation
CNSA	2004	Caisse Nationale de Solidarité pour l'Autonomie
CPAM		Caisse Primaire d'Assurance-Maladie
CRAM		Caisse Régionale d'Assurance Maladie
CSG	1990	Contibution Sociale Généralisée
DDASS		Directions Départementales des Affaires Sanitaires et Sociales
EHPAD	1997	Etablissement d'Hébergement pour Personnes Agées Dépendantes
SSIAD		Service de Soins Infirmiers A Domicile
USLD		Unités de Soins de Longue Durée

A more extensive list of acronyms is available on the LTCI website at *http://www.soa.org/professional-interests/long-term-care-insurance/long-term-care-insurance-detail.aspx.*

Another example of complexities: if the activities of a caregiver are defined as "doing housekeeping at an aged person's residence," it would be classified as housekeeper and not subject to reimbursement; but if the activity is listed as "helping an aged person to do housekeeping," the activity would be consistent with a long-term care caregiver and could be reimbursed.

Other obstacles occur when long-term care programs are duplicated by programs that help the disabled or other health programs; or raise discriminatory issues such as age, health status or financial resources.

INSURANCE

According to a 2011 OECD report, 15 percent of the French population over 40 have a long-term care policy, compared to 5 percent in the United States.

2010: About 5,000,000 insureds.

Insurance policies are governed through three legal codes.

Code de la mutualité: 3,200,000 insureds

- 3,000,000: civil servants with supplementary health contracts
- 75 percent using an annual risk management (répartition)
- 25 percent lifetime risk management (viagère)

Mutuelles (very different from U.S. mutual companies) are allowed to offer long-term care services as well as insurance.

Code des Assurances: 1,500,000 insureds

- 1,300,000 standalone long-term care insurance
- 200,000: part of life or annuity contract

Code de la Sécurité Sociale: 300,000 insureds Supplementary health contracts which are much like Medicare Supplement contracts, where a policy fills gaps not covered by the social insurance program.

About 50 different types of contracts are offered in the long-term care insurance market. Some of them cover the contract holder's risk of having to care for a relative. Benefit levels and premiums are much lower than levels in the United States, roughly by a factor of 10.

TAXES AND SOCIAL CHARGES

Labor cost of U.S. and French workers, where the labor cost is the total employee cost incurred by an employer:

	United States	France
Take-home pay	69%	51%
Taxes	15%	11%
Social charges	16%	38%

In addition to these charges, a value added tax (TVA), roughly equivalent to a sales and service tax, can reach a level close to 20 percent. Fiscal tools are used or contemplated to encourage long-term care: reducing the TVA to 5 percent for long-term care services, waiving social charges on long-term care assistance, increasing inheritance taxes on long-term care beneficiaries, increasing social charges on retirement income to the same level as employment income. Medicaid-like asset -based aid is also used: one proposal is to offer 50 percent aid or 100 percent if the beneficiary spends €20,000 of assets over €150,000.

While the French worker takes 18 percent less take home pay (as of percent of the cost, not salary), the

American worker must contend with health and retirement costs. Health costs in the United States is about 17 percent of GDP. According to a 2010 Standard & Poor's report, by 2050 health costs in the United States and France will increase by 6 percent, and their long-term care costs will add another 1.3 percent. Both countries will see their old age dependency ratio increase by more than 50 percent. While they will follow a similar path in costs and demographics, they approach the challenges in very different ways. Of course it would be difficult to isolate other factors to see the impact of such approaches. But France seems to have a stated goal: How can its society improve the life of its dependant elderly while keeping a stated policy of equality and social well-being?

TRADITIONS

Unlike the United States, France spent most of its long history as a rural society, where families had a central economic role. These traditions are reflected in its laws. Intergenerational solidarity is embedded in the French civil code, which requires anyone to provide minimum aid (obligation alimentaire) to his or her dependents, be it child or parent. Should someone leave a parent destitute, legal action can be taken.

ACRONYMS

[**Editor's Note:** The author created an extensive list of acronyms found while researching and working with French LTC. We include all acronyms the author mentions in this article. Due to the amazing length of this growing list, we would like to alert the readers that the full list is posted on the LTC Section of the Society of Actuaries' website at *http://www.soa.org/professional-interests/long-term-care-insurance/long-term-care-insurance-detail.aspx* . This method will allow the author to update the list periodically. The author creates an extremely useful tool for fellow researchers.]

This is like a list of the DNA components of the French long-term care environment. Some inclusions may seem odd. for example:

- SNCF: Société Nationale des Chemins de Fer, the government owned and operated railway system.
- CGT: Confédération Générale du Travail, one of the unions to which many railroad operators belong.

When the CGT calls a strike (a recurring, predictable, occurrence in France) it can paralyze the public transportation network. This has a great impact on the French economy since it relies greatly on public transportation. If one Solidarity day can generate $3 billion of savings on social taxes, a few days of strikes can undo all the benefits of such programs. In 2010, the CGT and other unions caused a lengthy national strike over the postponement by two years of the normal retirement age, from 60 to 62. It cost the economy about $400 million a day.

DATA AND STATISTICS

In 2002 a national program, Allocation Personnalisée pour l'Autonomie, or (APA) was introduced. APA allows people over 60 to have access to government aid when it is established the person has reached a certain level of loss of autonomy. The magnitude of the aid is a function of the level of dependency and income; but eligibility does not depend on financial resources as is the case for Medicaid. In 2010, over one million persons received such aid, or 8.5 percent of the almost 14 million population over 60 years old. Significant data and statistics can be derived from this program. For instance, the table on page 18 is taken from a 2010 study by one of the statistical services of the government. To use a life insurance analogy, this could be regarded as a general population study. The table on page 18 shows significant differences between segments of the population, which may follow similar patterns in the United States.

FOREIGN TERRITORY

While the French long-term care system is foreign territory, it is not Hogwarts or Pandora. No witchcraft is necessary and no Na'vi will need to be disturbed. The common ground is the needs of future dependants and their caretakers, and the ability of the insurance industry to meet these needs. This is not an attempt to demonstrate the merits of the French approach. Like baseball or handball, sometimes what works in one country may not work in another; although basketball did OK. Maybe a better analogy

CONTINUED ON **PAGE 18**

Allocation Personnalisée pour l'Autonomie[1] (APA)
Population: Metropolitan France, extrapolated from data of 22 départments[2]
Average Length of stay and distribution of beneficiaries by gender and age at entry in the program

APA Entry Age	Duration of APA benefits			Distribution of 2007 entrants		
	Male	Female	Total	Male	Female	Total
60-64	3 Years and 10 Months	5 Years and 5 Months	4 Years and 8 Months	4%	3%	3%
65-69	3 Years and 10 Months	5 Years and 6 Months	4 Years and 8 Months	6%	4%	4%
70-74	3 Years and 8 Months	5 Years and 5 Months	4 Years and 8 Months	10%	8%	8%
75-79	3 Years and 7 Months	5 Years and 5 Months	4 Years and 8 Months	18%	16%	16%
80-84	2 Years and 7 Months	4 Years and 6 Months	3 Years and 11 Months	27%	26%	26%
85-89	2 Years and 7 Months	4 Years and 5 Months	3 Years and 10 Months	22%	25%	24%
90-94	2 Years and 2 Months	3 Years and 7 Months	3 Years and 2 Months	10%	13%	13%
95 and older	2 Years and 1 Month	3 Years and 6 Months	3 Years and 2 Months	3%	5%	6%
Total	2 Years and 11 Months	4 Years and 5 Months	4 Years	100%	100%	100%

(1) Personalized Allocation toward Autonomy
(2) Départments are administrative regions, there are 95 in continental France. There are five other regions located overseas.

Long-term care methodologies apply current basic actuarial principles that are useful on long established insurance programs which may not be relevant to long-term care.

would be football: a very popular game in both countries, but with very different rules.

LAST WORD

I leave the last words to a great historical figure, Thomas Paine. Thomas Paine was born in England, moved to the American colonies in 1774, where he wrote "Common Sense." He moved to France in 1789, where he wrote "Rights of Man" and was a representative of a French départements (created in 1789) in the national assembly. During the French Revolution, he had a close encounter with a French innovation, the guillotine, but his political opponents beat him to it. He moved back to the United States in 1802.

The following quote could now point to a hoped-for outcome of the study of the French long-term care system. There is no proven long-term care methodology, as life insurance, health insurance, or disability insurance have. Long-term care methodologies apply current basic actuarial principles that are useful on long established insurance programs which may not be relevant to long-term care. Maybe the two countries can develop a long-term care actuarial methodology. The basic principles do not vary greatly.

"Every science has for its basis a system of principles as fixed and unalterable as those by which the universe is regulated and governed. Man cannot make principles; he can only discover them."

Note: On page 19 are references from which this article drew upon. Most, along, with corresponding website links, are in French only. Translations are not available. ■

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