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## Long-Term Care News ISUE 32 SEPTEMBER 2012

## AGGIR, the Work of Grids

by Etienne Dupourqué

fter World War II, the French government committed to protect workers from several hazards. It established a social security program to cover risks arising from health, retirement, work accident and raising a family. This commitment has been carried out by the various governments since then. The long-term care risk has been addressed through public services and reimbursements. Public programs are now greatly challenged by the twin forces of an aging population and the conversion to a European currency. The problem is compounded by the way some of the French social security is funded: repartition. Repartition, as opposed to the U.S. Social Security funding, is based on the principle that future workers, or tax payers, will pay for benefits being accrued. Long-term care costs are funded on a payas-you-go basis, with no fund such as in Medicare or what is envisioned in CLASS.

In this context, this article will attempt to describe a widely used long-term care claim assessment tool in France: Autonomie Gérontologie Groupes Iso-Ressources (AGGIR).

In 1997<sup>1</sup> the government adopted a standard method for public services to assign levels of individual autonomy to groups requiring equivalent resources. The method has been modified and refined in 2001,<sup>2</sup> 2004<sup>3</sup> and 2008.<sup>4</sup>

#### FRANCE LTC BENEFIT — ALLOWANCE FOR PERSONAL AUTONOMY (APA)

#### Background

• Introduced in January 2002 to expand senior benefits



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## **Opinions and a Conversation on LTC Financing**

by Steve Schoonveld

he summer months are for driving down the rural highways of America unencumbered, with the radio on and without any roadblocks as we progress toward that next milestone on the odometer. This summer our family did just that over a few extended weekends in the Northeast. Just as construction or traffic can slow our progress on the road, opinions can impede progress in our industry.

We all have opinions that vary in degree and when and where we express them. The Sunday morning talk shows, the network and cable news programs and the talking heads of many mediums clearly see profit in airing opinions. Oftentimes the misinformed viewer perceives the opinion as fact. An opinion can therefore continuously get in the way of progress.

Long-term care veteran Ron Hagelman closes his encouraging articles on long-term care insurance with the humorous phrase, "Other than that I have no opinions on the subject." Clearly we indeed have opinions on the subject, but do our opinions impede industry progress? Do opinions, such as the following, prevent the industry from expanding to meet the needs of a greater percentage of the population?

- "A proper long-term care insurance product must have an unlimited benefit period, inflation protection, and have cash benefits."
- "Long-term care insurance is appropriate for those with more than \$Y but less than \$Z of assets."
- "The Medicaid program is institutionally biased and requires complete impoverishment."
- "With more than 25 percent participation the private long-term care insurance system in France is a success."
- "A moderately adverse experience pad should be more than X percent."

To paraphrase Ruskin: Replacing opinions and impressions with facts and demonstrations is the work of science. We should do likewise as we seek to bring robust long-term care solutions to address the risk individuals face.

So how does one overcome an opinion-driven national discourse to indeed achieve progress? Since March of this year, a small group of industry leaders with a variety of opinions on the subject has held a National Conversation on Long-Term Care Financing. This group includes long-term care industry experts from the public policy, research, actuarial, sales and marketing, retirement, government and the insurance industry sectors. The intent of the group is to discuss comprehensive solutions to the long-term care crisis and provide well-vetted financing system approaches.

Rather than jumping right into the debate, the group examined the building blocks of a foundation that will help support the financing system structure to be built. First, a strong understanding of the population that the financing system is looking to support was gained. This review of the diverse American household included the needs and means of various market segments. This was followed with a lengthy discussion of the desirable qualities or the criteria that such a financing system would seek to optimize. The key criteria elements focused on whether:

- The proposed system is sustainable,
- A meaningful and comprehensive level of coverage is attained,
- · The system is affordable for the participants and stakeholders and
- Whether the funds are efficiently utilized.

Such an approach has removed the pursuit of opinions and provided for discussions toward proposals of well-supported financing system structures.

It is our hope that with this edition of *Long-Term Care Section News*, we will help remove the roadblocks of opinions and open the road toward progress.



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## Thoughts of a Landscaper

by Jason B. Bushey

y family and I live in a small subdivision. Recently, we discovered that we had a drainage issue on the lot line with one of our neighbors. It was serious enough that it could not be ignored. After some discussion with the other owner, the agreed-upon solution was the installation of a French drain. (A French drain is a permeable pipe surrounded by stone in the bottom of a trench which collects and drains away water from a low spot in a yard.) We also agreed to split the cost equally. I was responsible for getting quotes from landscapers to do the work. Unfortunately, the quotes were much higher than what we were both willing to spend. I, having grown up on a farm where I spent countless hours each year during my youth doing physical labor, suggested an alternative: The other owner would pay for the materials and I would do the labor myself. The other owner happily agreed to this arrangement so I starting planning the project.

Well, as you can probably guess, the project was not easy and took longer to complete than I had anticipated. However, doing it myself saved me a significant amount of money, resulted in my losing 10 pounds that unfortunately I am sure to easily gain back, ensured that the French drain was completed to my liking, and gave me the satisfaction of completing a difficult project. I cannot take 100 percent credit for the project as I could not have done it without help from others or at least as fast or as easily.

- My wife did more around the home and with our children to make up for my inability to do my fair share of the responsibilities because of the time spent on the project.
- My wife went to the local home improvement store one day to buy some supplies, which allowed me to continue to work on the project uninterrupted.
- A co-worker lent me a surveyor's tool that greatly reduced the effort it took me to ensure the trench had the correct grade.
- I hired three neighborhood youths during the last morning to help me transport the excess dirt to another part of the yard and clean up the project area. I hired them to reduce the amount of time necessary to finish the project as well as to take over the bulk of the remaining work as I was becoming physically worn out from the many hours moving dirt and stone over the last few days—I am no longer that teenager working on the farm.

Shortly after the completion of this project, I was searching for ideas for this article. With the landscaping project so fresh in my mind, I realized that I could relate this project to the long-term care insurance (LTCI) industry.

The LTCI industry's focus has been on providing what I would call full coverage. After a short or even nonexistent elimination period, the policy would provide benefits that would be in the range of cost of the long-term care (LTC) services provided for a period of time. In many cases, the period of time would be unlimited. The goal was to minimize the out-of-pocket expenses of the insureds while they received paid care. As we all know, this type of coverage is very valuable but is expensive. Annual premiums in the typical buying ages for one insured can easily top \$2,000 and approach and even exceed \$4,000 for a couple. Therefore, because of the high cost, the viable market for this type of insurance is limited to a certain segment of the U.S. population that has enough disposable income and is willing to part with it for this type of insurance.

CONTINUED ON PAGE 6



Jason B. Bushey, FSA, MAAA, is director, Actuarial & Reinsurance, at LifeSecure Insurance Company in Brighton, Mich. He can be reached at *jbushey@* yourlifesecure.com. A radically different type of insurance product must be created to attract more applicants. The LTCI industry is well aware of this barrier and has tried to find ways to reduce premiums and still provide good value. Some examples are:

- One carrier created a product with a co-pay to promote cost sharing between the insured and the carrier.
- Some carriers have eliminated some of the ancillary features.
- Many carriers offer cheaper versions of inflation protection than the standard 5 percent compound.
- Most carriers are embracing the Partnership products that allow insureds to buy policies with shorter benefit periods due to ability to more easily qualify for Medicaid if the insured exhausts the policy's benefits.

The theme of these modifications is just a reduction in the amount of coverage provided by the full coverage plans—just providing less of the current benefits. These modified plans are still too expensive for LTCI to be sold to a large percentage of the U.S. population. A radically different type of insurance product must be created to attract more applicants. Let's go back to my landscaping project to discuss what this new product could look like.

For my project, hiring a landscaper to take 100 percent responsibility for the work is similar to somebody buying an insurance policy that provides comprehensive LTCI coverage. I, like many U.S. consumers, did not want or could not afford to spend the money to buy that level of coverage. Looking at the current product modifications that the LTCI industry offers, the corresponding actions that the landscaper could take to reduce the price would be (1) shortening the length of the French drain by a few feet, which would force me to lengthen it myself, (2) I could work alongside the landscaper to reduce the price. What I chose to do was radically different—I chose to do the work myself. This is similar to the approach that many families in the United States use to provide care for a loved one since the vast majority of them lack LTCI; they do the work themselves as long as the insured's condition allows it. There have been countless articles on the challenges of family caregivers. The industry should design a product that will fit the needs of families that take care of their own loved ones. In other words, one of the key features of the product would be providing assistance to the family caregivers to ease their burden.

As I stated before, I received help with my landscaping project. I was lent some tools that made my work easier. That could be comparable to a product paying for a home modification like grab bars in the bathroom. My wife picked up my slack around the house. That could be comparable to respite care—giving me a break. Finally, when the work was becoming too hard, I hired some help. These helpers could be comparable to handing the care over to professionals when the insured's condition becomes too severe. Traditional LTC-style benefits being provided after a very long elimination period or after satisfying a more stringent benefit trigger would be comparable. A short-term care product with a very long elimination period comes to mind. The cost of products providing these benefits would be much less than the current LTCI products because they would provide fewer benefits but they would still provide value to the insureds and their families. They would not take

away the burden of care from the family, but they would reduce the burden and do it at a fraction of the cost of a traditional LTCI product.

Obviously, current LTCI regulations would not allow the type of insurance product I am describing. However, the current and ever-worsening impact of Medicaid LTC service expenditures on state budgets should provide a great incentive for regulators and lawmakers to think about changing the regulations to allow different types of insurance products to ease the burden on Medicaid. If the regulations could be changed, consumers would have the choice of the traditional stand-alone "full coverage" LTCI, LTC combination products, and the aforementioned new type of LTCI.

This is my last article as chair of the Long Term Care Insurance Section. I want to say that I appreciated the opportunity to serve the section over the past three years and have greatly enjoyed the experience.



- Targeted to cover 500,000 people (4.3 percent of population over 60 in 2002); 1,174,000 in 2010 (11 percent)
- Financed by general taxes; no specific contribution
- Cost was €2.6 Euro in 2002, €5.2 Euro in 2010
- Total long-term care public cost €24.7B in 2010

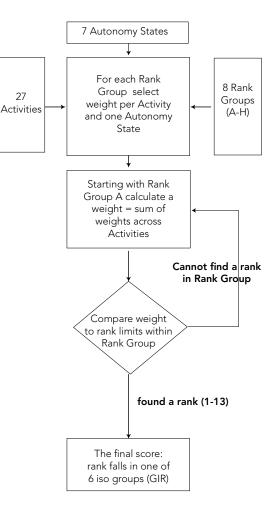
#### Eligibility

- At least 60 years old and a resident in a French Territory
- LTC dependency must be classified in group 1 to 4 of AGGIR scale (GIR 1 highest dependency)

#### Benefit

- A public commission evaluates finances, health, LTC need and family help (physical/financial) to set benefit
- Co-pays are required for individuals with medium-to-high incomes (co-pays range from 0 percent to 85 percent of the benefit)
- Cash benefit, same across regions, monthly cap only
- In 2007, 50 percent of recipients are over age 85
- 61 percent of beneficiaries are in their home
- About 26 percent of the recipients at home receive the maximum benefit
- In 2008 the average daily APA home care benefit is about €16

Below is a graph that illustrates the AGGIR algorithm.



AGGIR categorizes autonomy levels to various environmental factors affecting a person's activities and social life. No pathology is considered, although pathology grids<sup>5</sup> can be used with AGGIR to determine the relative costs of pathologies. The resulting levels of autonomy are assigned to equivalent resource groups. Individuals whose score falls in one group would require similar financial, instrumental, or human resources.

Weights in eight resource groups (A–H) are specified by regulation. Initially the weights were determined by a three-year clinical study involving 10,000 individuals. The study was performed in hospitals, not in nursing homes or private residences. The application to long-term care is still questioned.

Groupe Iso-Resource (GIR) helps determine if a person is entitled to a benefit as well as determine the level of benefit the person can receive. The GIR score is based on answers to questions or by observation. The calculator assigns a score between 1 (0 percent autonomy) and 6 (93 percent autonomy). A score below 4 entitles a person to public assistance: full assistance for a score of 1 and partial assistance for a score of 3. A score of 4 may entitle an individual to some assistance. Scores above 4 do not entitle a person to benefits under the national long-term care program (Allocation Personnalisée d'Autonomie, APA). The scores can be used for other purposes, such as insurance claim evaluation. A paper<sup>6</sup> accompanying this article compares GIR and ADL.

A score of 1 does not mean a disabled person will receive full benefits. For APA, a person must be age 60 or older, and a co-pay may apply based on the financial resources of the individual. The measurement's aim is to be as objective as possible. It should not vary by region or by the evaluator; however, several studies have shown that this is not entirely true.

Seventeen activities are considered in the evaluation. Ten of them are considered "discriminant" variables and apply to the physical environment; they are used to evaluate the level of assistance a person needs to carry on with normal activities of daily living. Seven "illustrative" variables measure

#### **Benefit Coverage**

#### The AGGIR Scale – Dependence Levels

	•	
GIR I	Bedridden or confined to an armchair AND mental faculties severely impaired	€1,235
GIR 2	Confined OR impaired mental faculties	€1,059
GIR 3	Help several times a day for ADLs	€794
GIR 4	Loss of autonomy for transferring, sometimes also regarding toileting or dressing, OR mobile but needs help to perform ADLs, including eating	€530
GIR 5	Help for bathing and home care	0
GIR 6	Autonomous	0

the social environment; they are used to evaluate how much assistance a person needs to lead a normal social life. Each variable is categorized by three major states:

- A: The individual cannot complete, needs assistance, or must have someone else do the activity;
- B: The individual can complete alone, but not spontaneously, and/or correctly and/or habitually and/or partially;
- C: The individual completes alone, spontaneously, habitually, totally and correctly.

The 10 discriminatory variables evaluate:

- 1. Coherence: Converse or behave in a logical and sensible manner;
- 2. Orientation: Locates oneself in time, during the day, and on location;
- 3. Toileting: Evaluates upper and lower body toileting;
- 4. Dressing: Evaluates upper, middle and lower body dressing;
- 5. Alimentation: Evaluates serving and eating;
- Elimination: Evaluates capacity to manage one's hygiene, not continence; evaluates all eliminations;
- 7. Transfers: Lying down, sitting down, getting up;
- 8. Indoor movement: With or without technical assistance;
- Outdoor movement: Same as above, but outdoors;
- 10. Distant communication: Phone, tele-alarm.

CONTINUED ON PAGE 10

Groupe Iso-Resource (GIR) helps determine if a person is entitled to a benefit as well as determine the level of benefit the person can receive. In early 2011 the now defunct French government initiated a review of long-term care. The seven illustrative variables evaluate:

- 1. Management: Manages personal business, budget, handles money;
- 2. Cooking: Prepares meals;
- 3. Housekeeping: Can do all of housekeeping tasks;
- 4. Transportation: Can use different modes of transportation, or can order them;
- 5. Purchases: Mail, phone, internet purchase, or direct purchases;
- 6. Medical treatment: Follows medical prescriptions;
- 7. Leisure activities: Cultural activities, sports, pastime.

An Excel calculator included on the website of the Long Term Care Insurance Section is based on the 1997 regulation (see endnote 1 of this article) with 10 discriminant variables to measure physical autonomy, and three major severity states. A 2010 calculator<sup>7</sup> found on the internet has all 17 variables as well as six severity states, where state B is split into: not spontaneously, not totally, not correctly, and not habitually. An iPhone app is also available.<sup>8</sup> Programs are available to build one's own calculator. These newer versions are based on the more recent regulations.

In the Excel version, when a severity state A (full autonomy), B (intermediate autonomy) or C (no autonomy) is selected for one of the 10 discriminant variables, a weight is calculated in each of eight groups used to rank the level of resources required ("calculation" tab). The level of utilization is indicated in the tab "AGGIR weights." States B and C are assigned weights (A is assigned 0) in each of the groups for most of the variables. The weights are specified by regulation (see endnote 1 of this article).

The calculation occurs in the right-hand side of the "Calculations" tab to determine the GIR score. The sum of all the discriminant variables' weights is performed for each of the eight groups. Starting from group A, a rank ranging from 1 through 13 is determined. Rank #1 means a person cannot perform any of the discriminant activities; rank #13 means a person performs all the activities. For each group a low enough rank can determine a final GIR score. This means that the individual is deemed to have reached a level of resources that is higher than the remaining groups. If a low enough rank that corresponds to a final GIR score cannot be found in one group, the next higher group (less resourcedependent) is analyzed. Maybe this approach is also used for grading actuarial exams.

Each rank was assigned an iso-group based on Canadian and French studies.<sup>9</sup> A validation study was performed with 17,000 individuals.

The 2008 (see endnote 4 of this article) version further refines the A–C choices as mentioned above, and some variables now have subcategories, such as lower and upper body for dressing.

#### THE REVIEW OF LONG-TERM CARE IN FRANCE—A FOLLOW-UP TO A SEPTEMBER 2011 ARTICLE

In early 2011 the now defunct French government initiated a review of long-term care. Four working groups (iso-groups?) were formed:

- Society and aging: 55 members, including one philosopher
- Demographic and financial perspectives of dependency: 65 members
- Housing and caring for the elderly: 59 members
- Strategy for the coverage of the elderly dependency: 53 members.

Members encompassed many branches of society: educational, professional, scientific, corporate, unions, and national and regional governments.

Discussions occurred regularly; town meetings were held; reports were written. A May 2011 report from the Institut des Actuaires, "Groupe de travail sur la dépendance," is included on the website of the Long Term Care Insurance Section. The Institut was part of working group 2. Group 2 met five times between February and June 2011, and sent its final report to the government on June 15, 2011. At the end of 2011, the results of this review were a pledge by the government to spend €700,000 on wellness programs, and an internet site that gives access to the various proceedings of the debate.<sup>10</sup>

While the apparent results of the debate may seem small (options such as adding long-term care to the

social security program and mandated long-term care insurance coverage were considered), they created a national debate for several months. This brought to the attention of many people in France how serious the long-term care question is, for individuals as well as for society, although I seriously doubt that the media coverage was more intense than a Justin Bieber tour.

In April 2012, a new government was installed. It created a subcabinet level department: Ministère délégué aux personnes âgées et à la dépendance (Administration on Aging and Long Term Care). Based on preliminary data, the national debate did not translate in significantly higher sale of long-term care insurance. In 2009, 1,359,000 people were insured; 1,453,000 in 2010, a 7 percent increase. Preliminary figures indicate that 1,533,000 people were insured in 2011, a 6 percent increase.

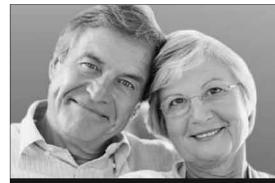
**Note from the Editors:** *Additional information related to this article can be found on the LTCI Web page at* www.soaltci.org.



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#### END NOTES

- <sup>1</sup> Décret n°97-426 du 28 avril 1997 relatif aux conditions et aux modalités d'attribution de la prestation spécifique dépendance instituée par la loi n° 97-60 du 24 janvier 1997 http://www.ibou.fr/aggir/files/gir\_iso\_ressourc-es\_28\_04\_1997.pdf
- <sup>2</sup> Décret no 2001-1084 du 20 novembre 2001http://www.ibou.fr/aggir/files/grille\_aggir\_20\_11\_2001.pdf Guide d'évaluationde la personne âgée en perte d'autonomie http://www.inami.fgov.be/care/fr/other/sisd-gdt/ scientific-information/pdf/aggirguide.pdf
- <sup>3</sup> Décret n°2001-1084 du 20 novembre 2001 relatif aux modalités d}attribution de la prestation et au fonds de financement prévus par la loi n° 2001-647 du 20 juillet 2001 relative à la prise en charge de la perte d}autonomie des personnes âgées et à ballocation personnalisée d>autonomie NOR: MESA0124006D Version consolidée au 26 octobre 2004 http://www.ibou.fr/aggir/files/Aggir\_26\_10\_2004.pdf
- <sup>4</sup> Décret no 2008-821 du 21 août 2008 relatif au guide de remplissage de la grille nationale AGGIR http://www.ibou.fr/aggir/files/groupe\_iso\_ressources\_23\_08\_2008.pdf
- <sup>5</sup> The AGGIR evaluation tool is sometimes used with another grid: PATHOS. PATHOS categorizes 49 pathologies (+1 when no pathology is found) into 12 "care" profiles.
- <sup>6</sup> Evaluation of situations of loss of autonomy of the elderly, CNSA.
- <sup>7</sup> http://medco5962.free.fr/GIR2/, in French, based on a 1998 government directive.
- <sup>8</sup> AggiNet, based on the 2008 directive.
- a) Les S.I.I.P.S : Soins Infirmiers Individualisés à la Personne Soignée (France), values in time.
  b) P.R.N. 80 : projet de recherche en Nursing (Canada), values in points.
  c) Echelle analogique de charge de soins (avec la même méthode et le même outil-une réglette-que pour la mesure de la douleur), values in centimeters.
  From the document "La spécificité de l'évaluation de la perte d'autonomie à domicile": http://www.riziv.be/care/nl/other/sisd-gdt/scientific-information/pdf/aggir24p.pdf
- <sup>10</sup> http://www.social-sante.gouv.fr/espaces,770/personnes-agees,776/dossiers,758/le-debat-de-la-dependance,2071/



# SOCIETY OF ACTUARIES

INTERNATIONAL SYMPOSIUM

## Call for Papers—Living to 100 Symposium V

The Committee on Living **to** 100 Research Symposia requests professionals, knowledgeable in the important area of longevity and its consequences, prepare a high quality paper for presentation at the next Living **to** 100 Symposium, Jan. 8-10, 2014 in Orlando, FL. The topics of interest include, but are not limited to:

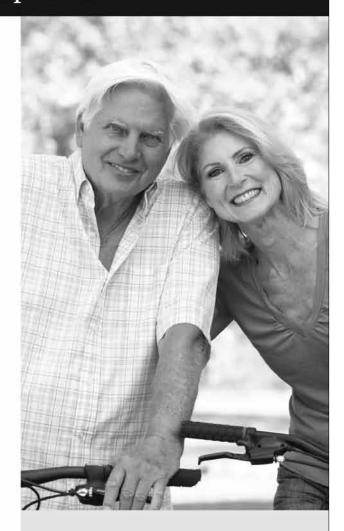
- · theories on how and why we age,
- · methodologies for estimating future rates of survival and
- potential benefits and risks associated with the increasing numbers of retirees and potential answers to other difficult issues that arise.

Please submit an abstract or outline of your proposed paper by Sept. **15**, 2012. The abstract should include a brief description of the subject of the paper, data sources and methods to be used, key items to be covered, and how your paper will contribute to current knowledge, theory and/or methodology.

A brief curriculum vitae or resume is also required. Submit the information by email to:

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Learn more about the call for papers, including the complete topic list, by going to Livingto100.soa.org Questions may be directed to Ronora Stryker, research actuary, at *rstryker@soa.org*.

### Independent Providers: A Long-Term Care Insurance Conundrum POLICY IDEAS FOR MANAGING RISK FROM IP CLAIMS

by Michael J. Gilbert

#### EXECUTIVE SUMMARY

Paying for Independent Providers (IPs) has been a significant development in the evolution of longterm care insurance (LTCI) as a product. Twenty years ago, few carriers would consider including non-licensed home care agencies as an appropriate provider, much less allowing unsupervised, uncertified or even family caregivers. Today, however, IP policy benefits constitute a "must have" for LTCI policy sales for competitive reasons—and this can be a great thing for the LTCI industry.

IPs can potentially offer a cost-effective opportunity for our claimants to receive quality care from people they know and trust, while costing less and providing similar care to a home health agency. Our obligation (and our desire) as an industry is to provide payment for good, quality care that our policyholders have paid for and want, and to pay those claims as quickly and as efficiently as possible. We want to be sure that an appropriate caregiver is in place, that the claimant is safe, and that the care and caregiver meet their needs.

The challenge for the LTCI industry is ensuring that all appropriate claims are paid quickly and efficiently, while having the information, tools and processes available to be able to feel comfortable that the appropriate care has been provided and to be able to determine what services were rendered without traditional care invoices. Fraud and improper and inflated IP claims can cause a significant increase in claims expense, which contributes to higher administration costs, higher reserves and, ultimately, the need for future rate increases.

Over the last two years, a new approach to IP claim management has been developed: third-party verification of IP claims. A third-party verification service can benefit both the claimant and the insurer. Utilizing a third-party verification service enables claimants to more easily manage their caregivers and to submit claims efficiently, and provides needed oversight to ensure the necessary care is actually being provided. For the insurers, third-party verifi-

cation provides new tools to quickly pay proper and appropriate claims, while giving vital new information and evidence to filter out and cost-effectively deal with improper, inflated or fraudulent claims. Implementing third-party verification of IP claims for a small number of insurers has indentified fraud, overbilling and other behaviors leading to overall inflation of claims by as much as 25 percent. In as many as 40 percent of cases observed, there has been some inflation of invoices which would yield claims savings if known prior to claim payment. In one program where third-party verification was mandated almost 6 percent of affected claimants simply went off claim, perhaps due to the sentinel effect. And in approximately 10 percent of all cases, there has been direct, intentional fraud or abuses identified and escalated to the proper authorities.

Here are some suggestions for how we, as an industry, can begin to adapt policy language to the new reality of home care and IP claims; to help claimants receive the care they need while helping safeguard the benefit pool for current and future policyholders alike.

#### POLICY EVOLUTION; SELF-REPORTED EVIDENCE

As policy benefits have become more comprehensive over the last 20 plus years to include home health care and independent care providers, policy language has developed to encompass and attempt to encapsulate some of this risk. However, claims organizations across the industry still struggle to actively manage the claims from these providers, while remaining within the letter of the policy language for each appropriate policy generation.

Following the initial benefit eligibility assessment, there is still a significant disconnect between the policy language that governs how IP claims can currently be managed, and the inherent risks of paying for care from providers that have little to no oversight. With claims from facilities or licensed home

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Fraud and improper and inflated IP claims can cause a significant increase in claims expense, which contributes to higher administration costs, higher reserves and, ultimately, the need for future rate increases. health agencies, LTC insurers rely on the state or federal oversight necessary to maintain the license as a primary fraud-prevention method when accepting self-reported proof of loss documentation. However, with no federal or state licensing oversight of IP caregivers, very little evidence exists (or is accessible to the insurer) to show that services were actually delivered, and even less exists to show that the care received was appropriate and supported the plan of care.

## PROOF OF SERVICES/PROOF OF PAYMENT

In almost all cases, the evidence that is required by LTC insurers of their claimants is self-reported. Although policy language varies throughout the industry, it is relatively common for LTC insurers to require that claimants show some proof that services were actually provided, and/or that claimants show proof of payment for the care prior to reimbursement.

In a survey of 15 LTC insurers representing more than 90 percent of the LTCI industry conducted prior to the 2012 ILTCI Conference, nearly all reported relying on at least one of three self-reported means of service verification: caregiver invoices, caregiver log sheets or detailed service notes. (See Figure 1 below).

In the same survey, over 60 percent of respondents reported requiring cancelled checks with each claim as proof that services had been paid for prior to reimbursement, while 30 percent of respondents reported requiring no proof of payment. Approximately 25 percent of respondents also reported that they allowed claimants to assign benefits to an IP. (See Figure 2 below).

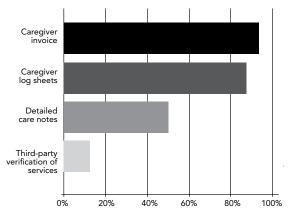
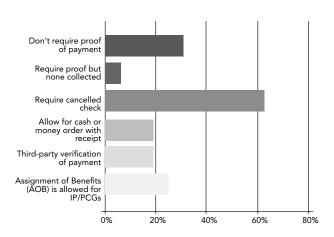


Figure 1. Proof of Services

#### Figure 2. Proof of Payment



#### INFLATED CLAIMS AND FRAUD

Due largely to the lack of real, consistent oversight, the prevailing feeling amongst LTCI claims leadership is that there is an unquantified amount of overbilled, inflated or simply fraudulent claims within their IP claims block, which often frustrates claims organization due to the perceived inability to act. When asked about estimated fraud and abuse within the existing IP claims block, about 40 percent of respondents felt that amount was more than 5 percent of all IP claims paid, with half of those believing that fraud was more than 15 percent of all IP claims paid. Based on their current claims block(s) and policy language, only one-third of respondents felt they were currently managing IP claims effectively.

With self-reported claim forms and no additional oversight, there is the risk that IPs can inflate claims by adding hours to invoices sent to the insurer without the knowledge of the claimant in situations where assignment of benefits is used. On the flip side, given the relative ease of creating a service invoice, claimants may submit invoices including charges for IP care delivered on days when the IP was not present. There may also be situations where the claimants and IPs set up side agreements for delayed or partial payments, or sharing of claims proceeds. The detection of this behavior is very difficult for claims organization.

Much of this behavior could be considered "soft fraud." Claimants who are determined to be benefiteligible often feel that they are "owed" their full benefit, and that they would lose some of that benefit if they do not use all of their daily maximum benefit every day of the claim. A claimant with a \$120 maximum daily benefit who pays their caregiver \$20 per hour and actually receives care five hours per day, four or five days per week, might invoice the insurance company for six hours per day, seven days per week, yielding a \$120 daily charge which exactly matches the claimant's maximum daily benefit.

Other behavior can be somewhat more premeditated. With unemployment up across America, an insurance policy that will pay for care from a friend or family member can be an enticing revenue stream. This can lead in some cases to the employment of a friend or family member being "hired" by the claimant to provide care, although the actual number of hours spend providing the necessary activities of daily living (ADL) care or cognitive supervision may be substantially reduced from the claimant's plan of care and hours invoiced to the insurer.

Even when potentially fraudulent behavior is suspected, costly additional management activities (such as outbound calls), surveillance, reassessments or claim denials are often the only tools available for further investigation. Several insurers make random outbound calls to claimants' homes, trying to establish whether the claimant and caregivers are actually present, but these calls are infrequent and a missed phone call is easily explained away by the claimant/caregiver as "she was out at the pharmacy" or "she was out shopping for food." Surveillance is costly and potentially intrusive, and most insurers' fraud units require concrete evidence before authorizing its use. Reassessments offer an additional view into the home, but at a price of \$350 to \$500 per assessment it offers a view of the claimant's needs a single point in time, which is not necessarily indicative of the care that claimant is receiving. Recent legal activities and judgments suggest that claim denials may soon fall out of favor due to the perception of greater legal liability. Until recently, few other options were available for cost-effective oversight and management of IP claims.

#### THIRD-PARTY VERIFICATION

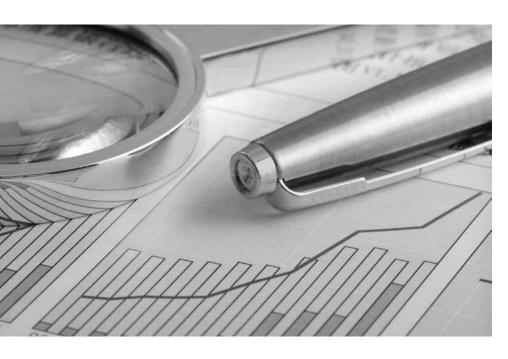
So what can we do? As stated above, our challenge is to ensure that all appropriate claims are paid quickly and efficiently, while having the information, tools and processes available to be able to determine that care invoiced was actually provided. It should also be recognized that the majority of claimants and care providers are honest, forthright and welldeserving of the policy benefits paid. We need to put in place a policy framework that enables us to cost-effectively sort out legitimate claims from illegitimate claims; we want to make sure we're paying the legitimate claims without making the legitimate claimants feel unduly burdened, but are able to put in place processes to minimize waste.

CONTINUED ON PAGE 16

We need to put in place a policy framework that enables us to costeffectively sort out legitimate claims from illegitimate claims. In all, this program has benefited the policyholders and their families, while also being very useful in identifying previously undiscovered fraud and inflated claims. Since 2010, HireFamily has been providing thirdparty verification services for IP claims to LTC insurers and claimants. These services include:

- Use of a telephonic timecard system for caregivers to check in and out at the beginning and end of each work shift;
- Verification of the identity of the caregiver and that they called in from the claimant's home;
- Verification of exact hours and services performed against the plan of care;
- Random and targeted calls into the claimant's home while the caregiver(s) are checked in to verify that they are providing appropriate services;
- Review of all claimant documentation and collection of proof of payment; and
- · Standardized invoice generation and submission.

What we've seen during that time confirms that there is a need to have a mechanism to validate services that have been provided by IPs. As noted previously in the Executive Summary, inflation of submitted claims, claimants suddenly going "off claim" when third-party verification is mandated and out-right fraud (as delineated below) have been observed when third-party verification is implemented by a carrier.



Directly fraudulent cases identified through the third-party verification program include many examples of the following situations:

- Confirmed no care being provided despite claimants invoicing for services seven days/week;
- Identified recoveries despite claimants recently having been recertified as benefit-eligible;
- Unauthorized and ineligible caregivers being improperly invoiced/reimbursed; and
- Undue caregiver influence causing substantially increased hours not actually required by the claimant.

Several of these cases had been on claim for years prior to going on services with HireFamily, with one claim having already paid out over \$600,000 in benefits. Within two weeks of working with HireFamily, this case was flagged as potentially fraudulent due to a potentially fraudulent pattern of timecard system usage. Subsequent surveillance/ investigation identified that no care was actually taking place—this was a situation where the claimant was using LTCI benefits as a revenue stream.

In several of these situations, claimants had purchased policies with unlimited lifetime benefits, so any reduction in claims payments resulted in a reduction in claims/reserves. Even when lifetime benefits may be limited, paying only for care actually provided should extend the claimant's available benefits pool for a greater period of time. We are also educating claimants, helping people save their benefit for when they really need it.

In most situations, the timecard system and electronic claims submission process allowed claimants to more quickly and efficiently manage their caregivers, and to receive payment from the LTC insurer more quickly due to complete and correct claim information. Long-distance family caregivers benefited from the use of a telephonic timecard system, and appreciated the fact that someone was "checking in on Mom and Dad" to make sure that the caregiver was actually present in the home when they said they would be. In all, this program has benefited the policyholders and their families, while also being very useful in identifying previously undiscovered fraud and inflated claims.

#### **SUMMARY**

These early indicators show that we may just have scratched the surface, and that it's very likely that all LTC carriers paying for IP claims have some degree of inflated claims. Our early programs show that this inflated amount could potentially be as much as 25 percent or higher of all IP claims. However, undiscovered fraud is very difficult to quantify; the only way to understand the actual amount would be to place a statistically significant portion of the population of IP claims under verification. Ask yourself: Have you really factored in human behavior in the risk calculations? Or does the "human behavior" that we are seeing indicate that IP claims require better controls and oversight?

As mentioned above, IPs can potentially offer a cost-effective opportunity for our claimants to

receive quality care from people they know and trust, while costing less and providing similar care to a home health agency. Our obligation as an industry is to provide payment for good, quality care, to be sure that an appropriate caregiver is in place, that the claimant is safe, that the care meets their needs, and that the caregiver is able to meet those needs.

Unfortunately, most claims organizations feel constrained by policy language from exercising enough control and oversight over these IP claims. As an industry, we should work together to ensure that future policies include language that allows proper oversight and management of IP claims, to help ensure the success and security of the LTCI products and insurers for all current and future policyholders.

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### The Future of Genetic Testing Is Now

by Wayne Heidenreich, M.D.



Wayne F. Heidenreich, M.D., joined Northwestern Mutual as a medical director in 1993. Since 1997, he has been responsible for medical standards for Northwestern Long Term Care Company's long-term care insurance product and for issues of medical risk stratification in underwriting, requirements, claims and product development for the long-term care product. He can be reached at wayneheidenreich@ northwesternmutual. com.

he world of medicine was transformed by the study of pathology under the microscope in the late 1800s, again with the growing science of biochemistry in the early 1900s, and imaging in the 1980s and 1990s. Medicine is now inextricably linked with genomics, and within the clinical community the call is out for frontline physicians to become familiar with genetic science. As an editorial in the New England Journal of Medicine states, "Both genetic and non-genetic information is important; the more we know about a patientgenes and physiology, character and context-the better we will be as physicians."1 Genomics is moving out of the research academic centers and the pharmaceutical labs into primary care offices. Today, it is part of many individuals' care. A little history: How did we get here?

#### INHERITANCE PATTERNS

Mankind has recognized the results of good breeding since before cities were built. Animal husbandry and horticulture have been important elements to establish civilization. Going into the 18th century, people recognized the inheritance of features in their royal families and in their own families. The science of breeding assumed that only one trait is inherited between two mating individuals. In 1865, Gregor Mendel, an Austrian monk, presented his studies of the inheritance patterns of pea plants to the scientific community. He had observed that when two differently colored plants were crossed with one another, neither a blended color nor a single coloring resulted from his crossings. Instead, he observed different proportions of plants resulting from different colored plants. With meticulous observation of generations of plants, Mendel formulated his concept of dominant and recessive traits without any knowledge of paired chromosomes or DNA.

Mendel's work forms the basis of modern genetics, or *Mendelian genetics*. In the 20<sup>th</sup> century the "traits" were found to be located on autosomal chromosomes that are inherited as pairs, one each from each parent. But one does not need to know what chromosome or gene is involved to understand the inheritance pattern. An understanding of a simplified example of Mendelian inheritance patterns will help explain how two parents with brown hair color can have a child with blond hair. Brown or dark hair is a dominant trait over the recessive trait of light or blond hair. If both parents carry a recessive trait for blond hair, they have a one-in-four chance of producing an offspring with blond hair. This offspring receives only the recessive trait from each parent and can only manifest blond hair color. When both a brown trait and blond trait is present, the brown trait is dominant and manifests while the recessive trait is "unexpressed." Probability dictates that three in four will have brown hair, a trait that is dominant over the recessive blond hair trait for expression (See Figure 1 on page 23).

When generations are studied, it becomes evident that some individuals are carriers of a recessive trait with the dominant trait manifesting. Other individuals inherit a dominant trait from each parent. These individuals will always have offspring with the dominant trait because that is all they have to contribute to their offspring.

Family trees of manifest or "expressed" traits or disorders could help predict the risk of inherited traits many decades before chromosomes were seen under the microscope or before DNA was described by Watson and Crick in 1952. Detailed family trees actually helped define some diseases as genetic when they produced a pattern consistent with Mendelian inheritance.

Sex-linked inheritance patterns were described when females rarely have the trait or disorder but half of male offspring have the trait. This pattern of inheritance can be documented without knowing that the trait is carried on the female X-chromosome while the male Y-chromosome always functions as a recessive contribution.

The discussion of inheritance has been limited to the concept of "traits" to reinforce the familial patterns of inheritance. But the unit of inheritance is the gene that ultimately produces proteins. Both autosomal and sex-linked inheritance represents types of single gene inheritance. Much of clinical genetics is based upon the knowledge of single gene mutations and their effect on individuals and risk for passing to the next generation. This discussion is very basic, and the function of genes in inheritance is influenced by many modifications. Nevertheless, Tables 1 through 3 on page 23 list some disorders that manifest Mendelian inheritance and are referred to as monogenic disorders. Traits or disorders that are recessive do not manifest in the offspring unless both parents contribute the recessive trait.

*Polygenic inheritance* is now recognized as the basis for inheritance of many normal traits and many common disorders. As the knowledge of biochemistry grew in the second half of the 20<sup>th</sup> century, it became clear that many disorders were the result of multifactorial interactions. A predisposition to develop a disorder can be inherited with the development of the disorder, for example coronary artery disease, being the culmination of multiple factors interacting. Multiple genes influence or modify a biological activity resulting in the expression of health or disease.

Hypertension, hyperlipidemia and diabetes contribute to the development of coronary artery disease. But some individuals have accelerated atherosclerosis beyond what could be predicted by their risk factors. There are other factors, both inherited and environmental, that affect the development of coronary artery disease. There are still factors unaccounted for.

Today, medical and public health initiatives emphasize how individuals can affect their likelihood of developing a disorder by lifestyle and nutritional interventions. *Epigenetics* describes how environmental forces can alter the genes and their function. In many ways we are able to influence the traits we have inherited, for better and for worse.

## MOLECULAR GENETICS AND GENETIC TESTING

To emphasize the importance of the pattern of inheritance, this discussion has purposefully saved the



discussion of deoxyribonucleic acid (DNA) to after the description of Mendelian inheritance at the core of classical genetics. This science was established before the growth of molecular genetics and long before the Human Genome Project began. It is a science built on observing the phenotype or expression of inherited traits and the pattern of transmission of these traits within families.

A brief primer of the foundation of molecular genetics is now in order. Life is built on proteins that form the structure of the body and direct the chemical reactions that energize and maintain it. We now know there are between 25,000 and 30,000 human proteins. The blueprint instructions for all of these proteins are sequences of four different nucleotides-adenine, guanine, cytosine and thymine. A person's entire DNA is referred to as their genome, and it consists of 3.3 billion nucleotides in chains paired with a mirrored copy of itself and organized into coiled double-helix chains. The genome is organized into segments as chromosomes, of which there 23 pairs, one chromosome of each pair from each parent. A gene is a segment of the DNA strand that codes for one protein.

Insulin was the first protein to have its sequence of amino acid building blocks sequenced in 1958. In 1965, when Dr. Victor McKusick first published

CONTINUED ON PAGE 20

Today, medical and public health initiatives emphasize how individuals can affect their likelihood of developing a disorder by lifestyle and nutritional interventions. One percent of the genome may vary from one individual to another, which means there are 12 million potential variations.<sup>3</sup> his landmark *The Mendelian Inheritance in Man*, he had catalogued over 1,500 inherited disorders. It was not until the late 1970s that the protein structure of insulin was mapped to its DNA sequence on chromosome 11. By that time there were over 3,000 entries; and, by the start of the Human Genome Project in 1990, there were approximately 5,000. The entries were summaries of the studies of families manifesting the disorder, discovery of abnormal proteins responsible for the disorders, and finally mapping of the genetic sequences and where on the chromosomes they were located.<sup>2</sup>

Every person shares about 99 percent of identical nucleotide sequences. One percent of the genome may vary from one individual to another, which means there are 12 million potential variations.<sup>3</sup> Triplets of nucleotides code for individual amino acids that are the building blocks of protein chains. Even a single substitution of one nucleotide for another, *a single nucleotide polymorphism (SNP)*, can potentially code for an abnormal protein sequence that may result in structurally abnormal protein. A single substitution of a nucleotide accounts for the abnormal hemoglobin protein of sickle cell anemia.

A gene is a sequence of DNA with a specific location on a chromosome, which codes for one protein. A variation of a gene that is found in a population less than 1 percent of the time is called a mutation. Mutations are relatively rare and variations are more common in a population. Each mutation or variation of a gene is called an allele. The terms mutation, variation and allele all refer to differences in the DNA sequence of a gene.

When there is reference to an abnormal BRCA1 gene, there are many different mutations possible, or many different alleles. Many of these variant alleles are catalogued; some are not yet discovered. Some alleles result in an abnormal BRCA1 protein that is dysfunctional and contributes to an increased risk for cancers, especially breast and ovarian.

#### GENETIC TESTS CURRENTLY USED IN CLINICAL MEDICINE

Cytogenetic tests visualizing the chromosomes have been used since the 1950s. These tests rely

on chemical stains of cells and imaging of tissue to determine if abnormalities in the chromosomes are visible. During reproductive formation of the sperm and ovum, damage can occur with the result of missing chromosomes or duplications of a chromosome. Fragments can be missing or moved from the normal location on one chromosome to another, and sections of a gene can be repeated. Down syndrome observed and described since 1880 as a morphologic abnormality was first seen under the microscope in 1952 as trisomy-21, or three copies of the chromosome 21.

Probes for individual alleles can be performed. These tests search for specific sequences of a single gene. The complexity of testing can be seen with the cystic fibrosis gene for the cystic fibrosis transmembrane conductance regulator (CFTR) protein. A recessive disorder by Mendelian inheritance, abnormal alleles of the CFTR gene can be tested for in prenatal carrier screens. A database is available that lists 1,300 different identified alleles.<sup>4</sup> The most common variant allele accounts for 70 percent of cystic fibrosis in Caucasians in the United States. Three nucleotides are missing out of 250,000 in the gene, resulting in an abnormal CFTR protein. In the Ashkenazi Jewish population, five different mutations account for 97 percent of cystic fibrosis. In screening for carrier status, a panel of common mutations is used. Negative results will generate an analysis of what the remaining probability is for the presence of an abnormal cystic fibrosis allele to be present. Since all mutations are not tested for, it will not be 0 percent.

Linkage analysis is used in situations where a disorder is evident throughout a family but the specific alleles have not been identified. Sometimes even the location or identity of the abnormal causative gene has not been identified. In linkage analysis, multiple family members are tested and individuals with the disorder may have a discrete section of a chromosome that is matched by DNA probes but not found in family members without the disorder or trait. These sections of DNA become candidates for the location and identity of potentially newly discovered genes.

*Genome-wide sequencing (GWS)* and genome-wide association (GWA) studies identify single varia-

tions of nucleotides between genomes at precise locations in the genome. These are called single nucleotide polymorphisms or SNPs. These studies are one of the triumphs of the Human Genome Project. They identify the gene where the SNP is located and the impact the variation has on coding for that gene's protein. Sometimes the SNP is not associated with any identifiable gene and has to be statistically analyzed to determine its significance in relation to the populations studied.

Ten years after the Human Genome Project's completion of the first complete genome, there was discussion in the scientific community and media of whether the hope of medical progress had been met. The hope had been that there would be many discoveries that could be translated into new treatments to cure common diseases. But work in the last decade keeps revealing the increasingly polygenic nature of disorders. While a GWA study may identify SNPs shared by a study group with a disorder, we are sometimes unable to identify the effect the polymorphism has on the gene and how the protein gene product contributes to the disorder.

During the decade of the 1990s, many labs were part of the Human Genome Project and were contributing to open-access cataloguing, a library of millions of SNPs. Technology allows known identified molecular probes to be used. A person's genetic material is run against the known reference sequences, and their genome can be identified in days instead of the decade it took the first genome to be described in the Human Genome Project.

While not being encountered in clinical medical care records, GWA studies are common front-page news. They identify associations of SNPs and clusters of SNPs that differ between individuals with and without studied traits or diseases. In some cases they do not identify the protein gene product or even the gene itself that differentiates the genomes. In this way, some GWA studies may not answer the question of what causes the studied trait or disease and exactly how the gene causes it.

Not all studies identify disease. In 2011, Scripps Lab announced collaboration with Dr. Eric Topol in studying the genome of 1,000 individuals who had reached 80 years of age without chronic or major illness.<sup>5</sup> The first step will be to generate in GWA studies the single nucleotide polymorphisms that differentiate these healthy individuals from the group with chronic diseases. It is not only the absence of *dysfunctional* genes that determine health. Healthy traits may positively influence and modify the same inherited risk for disease between the two groups. The next step is determining how these identified differences work and what we can do to intervene. We have moved to the age of the "\$10,000 test" (whole genome sequencing may cost \$1,000 in the near future) and the "million-dollar data analysis." The Human Genome Project developed phenomenal technology to analyze the entire genome of an individual in a fraction of the time and cost that the initial complete genome sequence required. As greater understanding of the pattern of SNPs is gained, more panels for health and for disease will become part of primary care. The next decade will see increasing data analysis of whole genomes from groups of people with a trait or disorder and comparing their markers to control groups. While mapping the human genome has moved from costing billions of dollars to near \$10,000, we will still need the "million-dollar" analysis.

## THE USE OF GENETIC TESTING TODAY

The path from DNA code to protein structure and function will be further delineated in the decades of the future. But there are many genetic tests commonly seen in clinical records today. Some of their uses today include:

- Newborn testing. All newborns in the United States are screened for the inherited inborn metabolic disorders of phenylketonuria and galactosemia. Both are treated with dietary restrictions. They are actually tests for the metabolic manifestation of the recessive disorder. Many states require more testing of newborns that includes genetic tests. The American College of Medical Genetics recommended a panel with 29 genetic and metabolic screening tests, and 21 states have adopted this recommendation.
- Prenatal carrier testing. Panels of tests should be used in conjunction with counseling as targeted

CONTINUED ON PAGE 22

The next decade will see increasing data analysis of whole genomes from groups of people with a trait or disorder and comparing their markers to control groups. carrier status is checked. If each parent carries a recessive mutation, there is a chance the child will have the disease if the child inherits the carrier gene from each parent. Technologic advances now allow many genes and gene sequences to be tested on a single "microchip." One company announced a chip that could screen 448 severe recessive childhood diseases.<sup>6</sup> This is "disruptive technology." While the science is exquisite, it calls for significant consideration for counseling of parents.

- Screening for cause. Family history of risk or suggestive symptoms. These tests are becoming routine in many situations. A family history of familial adenomatous polyposis is associated with a high risk for colon cancer with a recommendation for preventive complete colectomy. It is inherited as a dominant disorder. Screening the adult children of an affected parent can help plan surveillance and preventive surgery.
- Diagnostic criteria. There are many presentations where genetic testing will be used to confirm or rule out a diagnosis. For instance, with multiple cysts in the kidney, testing for the polycystic kidney disease mutations can confirm the diagnosis.



- Pharmacogenetics. New pharmaceutical agents are being rolled out with genetic tests that assess for adverse reactions to the medication or help with dosing for optimal response. Individuals are now being tested to determine how they may respond to a medication based on the type of allele they have in a gene that processes the drug.
- Personal interest with direct-to-consumer (DTC) tests. A Web search for DTC genetic test kits will turn up multiple companies that will test for markers of significant disease along with healthy traits. The tests can be obtained without a physician's order. The FDA is concerned over the validity of these tests and consumers' understanding of the results. These tests are not diagnostic, but the results give increased probability of having the trait or disorder. In an online survey, 64 percent of over a thousand respondents said they would eventually try a test.<sup>7</sup> The respondents were in their 30s, college-educated, and 75 percent female. While 80 percent would try a test out of general curiosity, 40 percent said they wanted to learn about their genetic makeup without going through a doctor. Genetics have become a household name.

#### GENETIC MEDICAL SCIENCE IS HERE TO STAY

Genetic medical science has been with us for many decades. Recent technological developments allow us to get the nucleotide sequences that are behind the inheritance patterns we observe and the metabolic abnormalities associated with them. Just as biochemistry has been part of medical workups for decades, so will medical genetics come into the primary care office. The medical literature is now exhorting clinicians to study and learn this science as they will need to know its place in screening, diagnosis, counseling and treatment. But we are just beginning to grasp the multifactorial influences on disease and how to move from genome-wide studies into clear opportunities for prevention and treatment.

#### Table 1. Autosomal Dominant Inherited Disorders

Table 1		
Autosomal Dominant	Significant Manifestation	
Marfan's	Connective tissue aneurysms	
Huntington's Chorea	Neurodegenerative dementia	
Miltonic Dystrophy	Chronic degenerative sympathy	
Adult Polycystic Kidney Disease	Renal failure	
Von Hipper Landau	CNS vascular tumors	
Familial Adenomatous Polyposis	Colon cancer and others	
Von Recklinghausen's Disease	Neurofibromatosis	
Retinoblastoma	Childhood retinal cancer	
Hypertrophic Cardiomyopathy	Heart failure and sudden death	
Spinocerebellar Ataxia	Movement disorder	

#### Table 2. Autosomal Recessive Inherited Disorders

Table 2		
Factor Leiden Deficiency	Blood clots	
Alpha-1 Antitrypsin Deficiency	Premature COPD	
Sickle Cell Anemia	RBC abnormality with anemia	
Alport's Syndrome	Renal failure	
Wilson's Disease	Cirrhosis	
Cystic fibrosis	Lung disease	
Phenylketonuria	Intellectual disability	
Gaucher Disease	Lysosome storage disorder in soft tissues and bone marrow	
Tay Sachs	Degenerative motor disease	
Familial Dysautonomia	Progressive sensorimotor autonomic neuropathy	

#### Table 3. Sex-Linked Inherited Disorders

	Table 3
Hemophilia VIII	Bleeding disorder
Color Blindness	Visual restriction
Agammaglobulinemia	Immune deficiency due to immunoglobulin deficiency
X-linked Spinobulbar Atrophy	Progressive limb and bulbar muscle weakness
Duchenne's Muscular Dystrophy	Progressive diffuse skeletal muscle atrophy

#### Figure 1. Example of Dominant Mendelian Inheritance

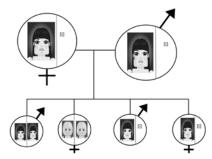


= brown hair as dominantly inherited trait.

hair as recessively inherited trait. Manifestation of blond hair is only possible if both parents transmit the recessive trait.

#### NOTES AND REFERENCES

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- <sup>4</sup> Like so many references in science today, databases need to be maintained online to keep up with new knowledge. One example, The Cystic Fibrosis gene database, can be found at: http://www.genet. sickkids.on.ca/app.
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### **Three Questions**

"A moment's insight is sometimes worth a life's experience."

ith this quote from Oliver Wendell Holmes, Sr. in mind, we pose a series of identical questions to diverse longterm care insurance industry leaders asking them to share thoughts that we hope will yield meaningful and interesting insights for all. We thank Mark Goldberg, Gene Pastula and Tom Riekse, Jr. for taking the time to respond to our questions.

#### Q: BEYOND DEMOGRAPHICS, WHAT MAKES YOU OPTIMISTIC ABOUT THE FUTURE OF LONG-TERM CARE (LTC) INSURANCE SALES?

**Riekse, Jr.:** First, happy customers. As more families are positively affected by LTC insurance, they will get the word out to friends and neighbors that it is a smart thing to do. Second, an increase in private pay providers. As these innovative and entrepreneurial care organizations (both home- and facility-based) increase their business, people will become aware that traditional sources of money like Medicare and Medicaid won't work as well with these organizations.

Finally, technology. New methods of communication and enrollment at the affinity and employer level and enabling enormously cost-effective outreach to employees and their families. It will become increasingly easy to price shop and buy LTC insurance online.

**Goldberg:** The demand for alternatives to selfinsuring against such a life-changing risk will only continue to grow as more attention is put on this challenge and our existing health care systems are stretched to their capacity. Americans will want to stay in control of their lives and not become dependent on the government. Innovation in medicine and technology will allow for us to stay at home for much longer with conditions that in the past would have required more institutional confinement. As we live longer, more people will have the experience of watching the impact of not being properly prepared, and seeing it happen to someone they know, which is the number one reason why someone needs to take action to protect himself. Insurance companies may evolve product design so that policies might not look like they do today, but the demand for alternative solutions to this risk and their ability to collect premium dollars marketing protection against that risk will only become more attractive in the years ahead.

**Pastula:** There is no question that our aging population is expanding life expectancy. Instead of quickly dying from disease, it is getting to the point where bodies simply wear out. It is during this end-of-life time that LTC is becoming the rule rather than the exception. Gradually our culture is beginning to come to grips with these realities. Our industry will respond by offering solutions that provide value that clients will more easily perceive at time of purchase.

#### Q: WHAT TWO OR THREE THINGS CONCERN YOU MOST IN TERMS OF HINDERING THE POTENTIAL GROWTH OF SALES?

**Goldberg:** I never understand the amount of misinformation that finds itself into the general press, and distorts the realities of our marketplace. Anyone who knows our business knows how off-base much of this information is, but to the general public, it paints a negative picture and distracts from the good our products and services can deliver.

The other is the lack of new producers taking up this cause to be properly prepared to help their clients address this issue. LTC insurance is a product that still needs specialists to properly uncover their clients' risk and design a plan; it's not a commodity product like auto or homeowners, and I don't see a time when it becomes one. When you compound that with the additional compliance requirements the different state departments of insurance (DOIs) have imposed and the negative publicity surrounding the business with carriers pulling out of the market, you get an environment where there are just fewer people looking toward making solutions for LTC a part of their discussions with their clients. Many of our producers continue to have recordbreaking years, but when you look at the marketplace in total it's hard to make up for those who have simply stopped producing.

**Riekse, Jr.:** The low-interest-rate environment. Companies need to be able to invest premiums at a level that keeps premiums lower and encourages this type of planning and the regulatory environment. There needs to be commonsense regulation of LTC sales and marketing practices that is more responsive. Big states like California and Texas need to put a priority on smart regulation to promote LTC planning. Finally, one needs to look at distribution to take the lead when carriers offer innovative ideas and plans, and adopt them instead of wishing for the good old days and products.

**Pastula:** Right now, the biggest problem I see is the interest-rate environment that drives the insurance industry and its ability to offer viable benefits. Lower portfolio returns combined with higher claims incidence mean higher cost of products with lower benefits. This calls for a different approach. Linked benefit plans may help fill that void.

Many in the LTC insurance sales force tend to be overly passionate about what they are doing to the point that they do not listen to their prospects. They are more involved in "winning the argument" than in adding benefit to a client's portfolio that provides an extra margin of financial relief when LTC is required. To win, sales staff will need to become more knowledgeable about all the strategies available to help clients plan for the LTC event and help them with the approach that best suits their needs, not the wishes of the agent.

#### Q: WHO HAS INFLUENCED YOUR CAREER IN LTC INSURANCE AND WHAT DID THEY IMPART (ON YOU) THAT YOU CAN SHARE WITH OTHERS TO ASSURE THEIR FUTURE SUCCESS?

**Pastula:** There is no one person, but I have had the opportunity to work with many financial advisors

who admit their lack of knowledge of LTC insurance and whom I have had the opportunity to educate as I would the most discerning prospect. These experiences have impressed upon me the need to show the clients value for their money. You must listen to the client, get good at understanding what he/she wants, and then offer your solution and perhaps your opinion for their consideration while still respecting their opinion. Know that the only time you will make the sale is when the customer sees that you are providing something of value.

**Riekse, Jr.:** My dad, who is celebrating 50 years in the insurance business, has far and away been my biggest influence. His smartest advice is, when weighing a decision or company direction, to lean contrary to the assumed general industry perspective! In addition, you have to feel really good about this business and what a difference it makes; if you can't do that you should do something else.

**Goldberg:** I have been extremely fortunate to work with most of the top carriers and their staffs of top actuaries, underwriters and marketing personnel. However, my biggest influences have been the producers I have had the privilege to work with through the years.

In my 21 years in the business, it has been in a constant state of flux. Whether it's a carrier changing policy design and rates or regulators changing the landscape of the marketplace, the only consistent thing has been the producer. Our producers have a mantra of "you are the solution," and I am not sure that even we realized how true this is when first conceived. Change is inevitable, but the one constant is the dedicated professional who is committed to staying on top of these changes and can communicate them to clients. The webinar approach in making the presentation of our products and service has proven to be a real game changer, and I see it emerging as the dominant method of how the product is offered to future applicants. It will create changes in how business is processed and issued. It's why we are proud of playing a major role in how to use technology and the Web to successfully build a practice. The same is true for lead generation and identifying future prospects. It's why the producer has been and will continue to have the biggest influence on me and on this marketplace.



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## Underwriting and Claims: From the Outside Looking In

by Jacqueline Bencomo Carreno, Gary Boldizsar, Kay Huth, Lisa McAree and Angela Palo



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t the 2012 ILTCI Conference in Las Vegas, a group of long-term care (LTC) industry professionals decided we wanted to do something a little bit different. We wanted the audience of our session, "Underwriting and Claims: From the Outside Looking In," to hear from the people who matter most to the LTC industry ... our constituents. The constituents represented included providers, consumers, LTC insurance sales specialists and mature market insurance brokers. As the audience entered the room, each person was handed a playing card and chocolate (this was particularly critical as we were the last session of the day ... in Vegas). Based on the playing card received, audience members were asked to sit with their card suit. This ensured the audience was evenly split among the four constituent groups.

After a few brief words of instruction by Jacqueline Carreno of CHCS Services, the audience picked up their chairs and formed four circles around their assigned constituent. Then the real fun began. The constituents each presented a number of issues they saw from their perspective when dealing with LTC carriers during underwriting and/or claims episodes.

Gary Boldizsar of Maxim Healthcare, representing the providers' perspective, discussed the difficulty he encounters when trying to help policyholders navigate through the initiation of care and understanding policy benefits. Many companies will not work directly with the provider because of HIPAA concerns. He believes, as far as the policyholder is concerned, at claim time, the provider is by default an extension of the insurance carrier (something for us to think about).

Kay Huth, a family caregiver representing the consumers' perspective, discussed the fact that consumers don't really understand what they bought (they may have when they bought it but because claims usually happen many years after the policy was purchased, they no longer remember how the policy works) and don't really draw the clear lines of distinction between the financing of care and the care delivery that we in the industry understand too well. To the consumer it is about their actual experience.

Lisa McAree, president of The McAree Company, representing the LTC specialists' perspective, discussed process simplification and standardization. She outlined how we should work as an industry to make our processes simpler and more consistent across carriers to make working with us easier for agents and their clients, our policyholders.

Angela Palo of Pinnacle Financial Services, representing the insurance brokers' perspective, discussed the use of technology in underwriting and claims processes. To drive process efficiency, life, health and annuity carriers utilize electronic data transmission, from application submission through underwriting and policy issue and at claims time. This enables the agent to be a better advocate for both the applicant/policyholder and the carrier. A win-win situation for everyone.

Following their opening comments, the constituents then asked for input from their groups. As we listened to the ideas being shared, it became very clear that these conversations should happen more often.

Following the group discussions, each constituent representative was asked to summarize the ideas generated by their group. The following is a summary of the key themes:

**1. Simplicity:** Make our processes simpler and consistent through the use of standardized forms and tools. What takeaways can we learn from other insurance industries? Can we push regulators for more consistency in regulations across the different provider types?

**2. Constituent Education:** Do a better job of explaining policy and process to our policyholders, especially at claim time. Set clear expectations for all constituents. Prepare packets of information for the family (when involved) to help them understand the processes and how to navigate the LTC delivery system. Perhaps think about providing this educa-

tion prior to claim time. Provide better education for our agents/brokers, especially around the claims process so they can explain this clearly to their clients. Educate providers as well.

**3. Technology:** Use technology to make dealing with us as easy as possible. Make forms available online for online completion and submission to eliminate errors and missing information. Make benefit information available online for policyholders/providers (similar to health plan benefit processes).

**4. Help Us Help You:** How can our stakeholders in the process help? Is there a role for providers to assist carriers at start of care? Can we set clear expectations and guidelines with providers that will allow us to work with them to assist our policyholders? What about the agents/brokers who originally sold the policy? How can they be involved in assisting (where appropriate and requested)? What about

the field assessors? Can they do more to assist the policyholder with the claims process when they are in the home to complete an assessment?

**5. Industry-Level Resources:** What resources can we share across the industry? Provider networks? Community-resource networks? Industry-wide consumer education? Wellness initiatives? Fraud detection tools? Standardized invoice submission processes? Social networks?

We, as an industry, should be listening to each other and to our stakeholders. Our policies and processes need to change so that, within the constraints of the policy language we must live by, we do whatever we can to make working with us a positive, productive experience for our constituents.

After all, we are all working toward a common goal and that is to help our policyholders handle the eldercare issues they are facing.



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## Aspirin, Not Morphine

by Bruce A. Stahl



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Interest rate movements (or lack thereof) can present problems for insurers that underwrite and sell LTCI, but only under particular circumstances. S everal long-time participants in the longterm care insurance (LTCI) market recently announced they would no longer be selling the product. One reason? The ongoing low interest rate environment. Clearly, these insurers sought to relieve the pain from what they saw as an insoluble situation by leaving the market. In doing so, they reacted to the interest rate environment by choosing the severe remedy of morphine over the milder one of aspirin—which may have turned out to be perfectly effective.

Interest rate movements (or lack thereof) can present problems for insurers that underwrite and sell LTCI, but only under particular circumstances. To understand the effect interest rates can have on LTCI, it is essential to grasp how LTCI products, and the insurers that offer them, can be affected by inflation, how inflation relates to interest rates, and, finally, how insurers invest their LTCI assets.

#### INFLATION AND LTCI BENEFITS

For an insurer offering LTCI, the design of its product offering determines whether it will be vulnerable to inflation. Policies that pay specific, predefined benefits, whether structured as cash or indemnity, are generally not inflation-sensitive, as they are priced for the predetermined payout.

Expense reimbursement policies, however, have periodic (daily or monthly) maximums, and so will be sensitive to inflation. Why? Insurers frequently price their LTCI policies with the assumption that benefit payouts will not reach 100 percent. This is because buyers frequently elect, for the policy, an initial daily maximum that would be close to a reasonable daily room and board cost in a nursing home. Then they opt for care providers with lower per-day costs.

Although LTC insurers tend to incorporate this buyer tendency into their pricing, inflation of LTC facility and home health care costs—an ongoing fact—means insurers could ultimately pay out a total benefit amount that is quite different from what was anticipated when the policy was priced. This is particularly true when policies are designed with an increasing maximum benefit feature.

Many LTC insurers offer an automatic annual increasing benefit maximum feature with their expense reimbursement policies, to compensate for provider cost inflation. When policies have this feature, insurers are less likely to pay out the maximum.

LTCI policies with a 5 percent compound increasing maximum feature can be quite sensitive to cost of care inflation. If the cost of an insured's care has a constant annual inflation rate of 5 percent, the expected ratio for LTC insurers of actual costs to maximum benefits permitted will remain essentially constant.

If the annual rate of economic inflation is less than 5 percent, however, the ratio of actual expenses to the maximum reimbursement will shrink, extending the time benefits may be payable. Extending the time is generally less expensive for the insurer, because fewer claimants will reach maximum payouts.

On the other hand, if the annual inflation rate is greater than 5 percent, the ratio of actual expenses to the maximum reimbursement will increase, and insurers could risk paying out 100 percent of the policy benefits.

This sensitivity to inflation is important to any projections of future liabilities, whether for testing reserve adequacy, deferred acquisition cost (DAC) recoverability, or identifying a need for rate increases. This is particularly true if annual inflation is tied to the assumed interest rate when sensitivity of interest rates is being tested.

## INTEREST RATES AND INFLATION RATES

Inflation rates and interest rates are interrelated in two basic ways. Lenders, or suppliers of money, charge at least as much for the use of their money as the expected cost of waiting either to consume products or to invest in other assets (inflation). In this view, interest rates are determined by inflation rates.

On the other hand, the Federal Reserve may try to manage inflation through monetary policies intended to manage interest rates. Perhaps oversimplifying, a lower cost of money (or interest rate) is expected to increase borrowing demand for the purchase of goods and services, which in turn tends to increase the cost of those goods and services, thereby generating inflation. In this view, inflation follows earlier interest rates.

Both of these scenarios suggest that the cost of money and the rate of inflation undergo some continuous balancing of supply and demand as well as cause and effect, and are correlated over time.

The products and services for which LTCI pays have their own rates of inflation, which must be considered by insurers when pricing LTCI policies. The inflation rate of nursing home care costs has been tracked by the Bureau of Labor Statistics (*http://www.bls.gov/cpi/#tables*) for 12 years, and has turned out to have a positive correlation coefficient of close to 50 percent with Moody's Aaa Seasoned Corporate Bond yield index (*http://www. federalreserve.gov/releases/H15/data.htm*).

Over the past 12 years, Aaa corporate bond yields tracked by the Moody's index averaged close to 5.8 percent, while nursing home cost inflation averaged less than 4.5 percent. Actual nursing home inflation rates for the same time period varied from 2012's low rate of 2.9 percent to highs of 5.7 percent in 2003 and 2007, the only two years the nursing home cost inflation exceeded 5 percent.

Home health care expense inflation has only been tracked for five years. Those expenses experienced less inflation over the past five years than those for nursing home care. Although having only five years of data points is small and therefore not really a statistically credible measure, it is worth noting that the correlation coefficient for HHC expense inflation with the Moody's index was more than 80 percent. The highest inflation rate recorded was 4.5 percent in 2008 and the lowest, 1.3 percent in 2010, well below the Moody's yields of 5.63 percent and 4.94 percent, respectively.



#### INVESTING LTCI ASSETS

LTCI assets are often invested to meet cash flow expectations where the projected liabilities are kept constant. This may work for predefined cash benefits, but not for expense reimbursement policies and especially not for expense reimbursement policies with an inflating maximum feature.

The investment strategy would likely be much different if the projected benefits on expense reimbursement policies were to change along with projected yield assumptions. In fact, a strategy based upon multiple projected inflation-adjusted cash flows could suggest investing for shorter durations than the typical investment strategy for LTC insurance.

Often, the investment strategy for a single set of projected cash flows is to keep the assets invested as long as possible in order to match the assets with a very long average liability duration. This is probably appropriate for predefined cash benefits. But even with such cash benefits, strategies and incentives may be out of sync. Some investment managers may have incentives to produce high short-term returns and take capital gains at a point in time when a manager of LTCI portfolio assets might prefer to see the investments held longer. The products and services for which LTCI pays have their own rates of inflation, which must be considered by insurers when pricing LTCI policies. Some asset managers have looked at managing interest rate risk by using certain hedging instruments and strategies.

Even if the investment manager and the LTCI business unit have the same fundamental objective with one set of projected cash flows—that is, to keep the assets invested as long as necessary, to match the times when the assets are expected to be needed to pay benefits—this type of matching is now very difficult to do. The volume of 30-year U.S. corporate bonds is now limited, and even when they are available, an investment portfolio's average duration frequently falls well short of when the cash will actually be needed for LTC liabilities.

Some investment strategists have recommended creating synthetic investments by taking a portfolio of corporate bonds and structuring the short- and long-duration components into investment instruments with durations long enough to meet this need. Undertaking this sort of synthetic asset creation, however, is administratively expensive, and reduces an asset manager's strategic flexibility.

Some asset managers have looked at managing interest rate risk by using certain hedging instruments and strategies. These can be appealing, but might not be foolproof. For example, some insurance companies may not be prepared for the swings in earnings that may occur when using hedging instruments and strategies that require collateral, and some asset managers may not hedge the risk as completely as needed (or presented).

#### MANAGING LTCI ASSETS

An insurance company selling LTCI today would do far better to address these important financial needs by taking the aspirin of improving modeling and pricing, and not the morphine of shutting down the business line entirely.

The aspirin can consist of two strategies: First, integrate the projections of the asset portfolio and the claims liabilities when testing the sensitivity of assumptions or stochastically modeling the product. The needed timing of asset maturities (or the sale of assets) may be different when inflation alters the projected cash flows.

Second, establish a separate asset portfolio for LTCI products, and make sure it has a strong, well-defined, well-documented Investment Policy Statement. An Investment Policy Statement will enable pricing actuaries and investment departments to work together with the same goals and objectives. This will help ensure not only that investment portfolio assets are invested in line with the LTCI pricing actuaries know which investment assets are planned for purchase before taking the steps of identifying their best estimate investment yield assumptions and then synchronizing them with an inflation assumption on the liability side.

## LTC Dashboard — Key Accessory to High-Octane Performance

by Laurel Kastrup and Robert Hanes

#### BACKGROUND

Since their introduction into the insurance marketplace, long-term care (LTC) insurance products have proven to be challenging to manage to achieve desired profit margins. This is greatly attributable to the lack of credible experience in pricing the products initially and the flexible nature of LTC benefits, which can cover custodial care in a wide variety of settings and often at different levels of costs. In addition, medical advancements and improvements in technology continue to reshape how care is delivered and change claim continuance patterns.

#### LTC EXPERIENCE MONITORING

In view of the actual experience of LTC carriers and emerging trends which impact claim incidence and continuance, companies are encouraged to monitor their LTC experience on a routine basis to detect problems as quickly as possible so that requisite corrective actions can be modest, but effective.

Instances where such experience monitoring is in evidence can be found in several recent press releases regarding LTC financial results, wherein companies have mentioned the need for active (ALR) and disabled (DLR) life reserve strengthening, deferred acquisition cost write-offs, and/or premium rate increases on inforce policies. In some cases, carriers have discontinued new sales altogether. Among the main reasons given for these actions were that actual experience developed differently than assumed in pricing or in the original reserving assumptions. A common reason for a premium rate increase is that policy persistency has been higher than anticipated, which is expected to lead to higher claim costs in the future. For disabled life reserves, increases are often due to longer claim continuance.

Going forward, how should LTC companies monitor their experience? What metrics should they review and how frequently? As we have seen, companies failing to monitor their LTC experience actively find reversing poor performance difficult and often decide to leave the market to others.

#### LTC DASHBOARD

This article will take a look at the analyses a company can perform to monitor their LTC business to help detect and try to correct experience variances before having to increase inadequate reserves substantially, to request large premium rate increases, and/or to stop selling new business altogether. The goal is to create an array of information or a "dashboard" generated from the analyses that can be used to better manage the LTC risks the company has assumed.

Dashboard metrics typically focus on the assumptions used to price the products:

· Morbidity: Some of the biggest unknowns in pricing LTC products, and where substantial financial risks lie, are the morbidity assumptions - namely, claim incidence, claim continuance, and utilization (for expense reimbursement coverage). Companies need to monitor each of them separately. This is often performed by calculating actual to expected ratios. Depending on the need, the expected basis can be from pricing, valuation, or best estimates. While many different sets of ratios can and should be developed, the dashboard should contain those ratios that represent where the information is credible and the company's exposure is the greatest. (Note: Too often, companies rely on actual to expected studies of total claim costs to monitor morbidity. This is not going to show problems in the DLR and will be slow to show problems in the ALR. Because of this, taking a deeper look at the individual morbidity assumptions separately is warranted. Also, results learned from taking apart the morbidity assumptions for the DLR analysis should be incorporated into the ALR assumptions.)

Another performance measurement tool to use for morbidity is a disabled life reserve (DLR) source of earnings analysis. This analysis projects the DLR from one period to the next and compares how the DLR was expected to perform, usually based on valuation assumptions, versus actual

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experience. A dashboard can then be set up for this to answer questions such as:

- Were claim terminations higher or lower than expected?
- Did the terminations vary for the entire block or just a particular segment — for example lifetime benefit period versus limited benefit period?
- How did paid claims compare to what was expected for the period? Were they higher because of increased utilization, lower claim terminations, increased incidence, or a combination of these reasons?
- Did the claim results vary by product feature — for example, claims with an inflation adjustment versus no inflation adjustment?
- Did the results vary by issue age band or policy form? If this is the case, companies will have to dig deeper to see if there is a problem with incidence or if it is a result of higher than expected policy persistency.
- Claim Transitions: Another morbidity-related item to consider is claim transitions. Depending on how your valuation system is configured, when a claim changes site of care, for example from home care to nursing home, it can cause a disconnect in your DLR calculation because of the typical increase (or decrease) in benefits. The preferred remedy would be to incorporate claim transitions in your valuation; however, if that is not currently feasible, you can track them and make adjustments, if appropriate. For the dashboard, the number of claims transitioning during the period can be monitored for reasonableness and compared to expected, if that information is available.
- DLR Hindsight Analyses: To demonstrate the continued adequacy of assumptions used to calculate disabled life reserves, companies should calculate the margins or deficits for DLR balances from prior valuation dates. The dashboard should track the five most recent year ends at a minimum. Consideration should be given to those dates when reserves have been strengthened to document that the reserves are more adequate as a result.

- Investment Income: Given the current low new money rates, some LTC carriers are contending with investment yields that are lower than assumed in pricing. Additionally, depending on the make-up of their investment portfolios, asset and liability cash flow mismatching is more of a problem because of the lower yields (e.g., asset durations are shortening as callable bonds are being called). To monitor the impacts of shifts in the interest rate environment, companies should include invested asset performance on the LTC dashboard. Items to consider for the dashboard are: asset quality, features (e.g., callable), current average yields versus valuation interest rates, unrealized gains/losses, etc. Lastly, a gross premium valuation analysis can be used to determine the breakeven interest, which can be a useful gauge to know how much margin there is in the investment income assumption.
- Total Persistency: Given that LTC is a lapsesupported product, having the appropriate lapse and mortality assumptions is important to an adequately priced product. When LTC was first priced, total persistency was often assumed to be much lower than experience has shown and has resulted in higher than expected claim costs, both in terms of actual and projected claims. The LTC dashboard should track actual to expected total persistency ratios by policy form and other variables that are determined to be significant (e.g., policy duration). Some carriers also have the ability to track mortality accurately, which will give more insight into this assumption. After a premium rate increase, monitoring shock lapses is important. If a company has several years of LTC experience, the actual to expected persistency ratios should show improvement, assuming that more recent business was priced with reduced lapse rates.
- **Premium Rate Increases:** If premium rate increases are being requested and implemented, it is important to have a grid to track the "success rate." This is the ratio of the rate increase requested to the final rate increase approved by state and, when combined with the amount of premium in the state, gives the ability to calculate the overall rate increase. Adding dates to the tracking allows monitoring of the lag between request and

approval of rate increases which can be considered when determining future actions.

- **Commissions and Expenses:** Actual to expected commissions and expenses should be monitored as well. It is important to note if commissions are paid on rate-increased premiums. The recoverability of the most recent calendar year of sales should be monitored.
- Sales Trends: Sales trends by policy form and various combinations of region or state, age, underwriting class, benefit period, elimination period, benefit amount, spousal coverage, etc. should be monitored. Comparisons to the sales projections should be included. If based on the pricing, there are known problematic cells, for example sales concentrated in one state, these should be monitored separately. Carriers should also note the number of exceptions to the underwriting manual in the new policies. For example, are a high number of exceptions being granted or do new sales follow the underwriting guidelines?

Once most of the procedures for actual to expected reports are in place, they can be performed quarterly. However, tools such as deep-dive experience studies on morbidity are generally only updated annually. To be most useful, this should be done before cash flow testing, loss recognition testing for GAAP, and the company expected plan is performed. For any assumptions that are highlighted as being problematic in the short-term, they should be monitored more frequently. Companies find it helpful to put together a calendar for experience studies. This helps the work stay on target and gives the appearance of being a well thought-out process and not some ad hoc actuarial work.

#### SUMMARY

In summary, as a company's LTC products mature and credible experience develops, their true performance can be assessed. An LTC dashboard which includes metrics and information like those described in this article, can be a valuable component in monitoring the experience and determining appropriate management actions to achieve desired objectives. ©2012 KPMG LLP, a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

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Sales trends by policy form and various combinations of region or state, age, underwriting class, benefit period, elimination period, benefit amount, spousal coverage, etc. should be monitored.

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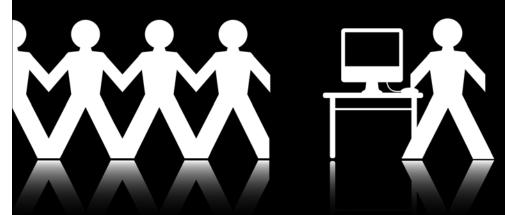
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