AspiRe
A Reinsurer's Panorama
RGA Middle East

June 2013

Note from the Managing Director's Desk

It is my great pleasure to present to you, our valued business partners, the first edition of the RGA Middle East newsletter AspiRe, a milestone for us, and appropriately at a time when RGA is celebrating 40 years of innovation. We would have not made it here without your support. RGA experienced another strong year in 2012. Operating income surpassed $500 million (RGA uses a non-GAAP measure called operating income as a basis for analyzing financial results), and net income for the year reached $631.9 million.

At RGA Middle East, the last 12 months have represented an important period for this office's development, as we make progress on establishing our commitment to this market. A number of senior appointments were made to support the growth of business in the region. Martin Houle relocated to Dubai to serve as our Chief Actuary; Tamer Saher joined us as Head of Product Development; Suresh Vellat came on board as Head of Operations; and Dr. Dennis Sebastian is Health Director, Middle East. Because of this expansion, RGA Middle East recently relocated into new premises to accommodate the growing team. Given the pace at which regulatory reforms are happening in the region, and the increasing recognition of personal lines of insurance as an alternative financial protection tool, these recent additions to our staff will help ensure that we meet the challenges as well as the opportunities for growth that this market presents.

RGA has become an industry leader by developing solutions that help our clients manage risks, capitalize on opportunities, and build their business. RGA's strengths as a reinsurance partner are expressed in our tagline, "The security of experience. The power of innovation." As you reassess your strategies to address the current market, we are here to listen to your needs, help you develop sound risk management practices and be part of your solution.

Ashraf Al Azzouni
Managing Director, RGA Reinsurance Company Middle East Limited

In This Issue

Editor's Note

Aspire: *To have a great ambition or ultimate goal; to desire strongly; to strive toward an end; to soar.*

Inspired to provide our clients with outstanding service and to share knowledge on key industry issues (and following months of planning and exemplary teamwork), I welcome you to the first edition of the RGA Middle East newsletter, AspiRe. In this edition we bring you the following articles:

The Head of Product Development at RGA Middle East, Tamer Saher, elaborates on the product innovations in the Afro-Asian insurance market.

Oscar Smith, Head of Business Development, provides insights on "How Facultative Underwriting Develops a Market."

Following that article, Garth Lane, Capital and Financial Risk Actuary at RGA UK Services Limited, discusses an intriguing topic in his article, "Will We Live Forever?"

An article by Adriano de Matteis, Assistant Vice President, Marketing Development, for RGA International Reinsurance Company Limited, Branch Office for Italy, details what drives product innovation, with examples from overseas markets.

In this edition we also include a section titled "Know Your RGA Colleagues" because we believe it is important for our clients to learn more about the people who partner with them every day.

RGA will continue to bring to our clients the level of business and service excellence that has been recognized by industry surveys and studies worldwide. This year we will hold the annual Underwriting Seminar and the Business Development and Underwriting Gathering, both in the third quarter, as well as the Annual Actuarial Event, will take place in the fourth quarter of this year.

I welcome any feedback about the topics addressed in this issue and suggested topics for future editions, and remind you that we are here to be part of your solution. Please send comments and suggestions to dsebastian@rgare.com.

Dr. Dennis Sebastian
Regional Director, Health
RGA Reinsurance Company Middle East Limited

Afro-Asian Market Insurance Innovations

By **Tamer Saher**
Head of Product Development

RGA Reinsurance Company Middle East Limited

Sixty years ago, a smartphone or tablet computer would have seemed a gadget out of a science fiction or James Bond movie. Since then, innovation has brought those imaginary items into reality, and innovation is very much the key to business success today.

The Afro-Asian region, consisting of all the countries in Africa, the Middle East and Asia (including India and Turkey), is a vibrant mix, with sophisticated and mature markets, developing markets, and emerging markets which until recently were more focused on microinsurance (and perhaps still are focused on this area).

Interesting and innovative ideas have been coming from many insurance lines at all points along the market's spectrum. Here is a variety to ponder.

A simplified packaged sale

In India, an insurer has teamed with a fertilizer company to sell personal accident policies to farmers, selling policies that are actually packaged with bags of fertilizer.

Once a farmer buys the bag of fertilizer, he automatically receives a set amount of personal accident cover. The price of the fertilizer bag includes the personal accident cover premium, and there is no policy document: the fertilizer bag itself is the proof of insurance.

This simple purchase process is beneficial for a segment of the market that usually considers insurance purchases hectic and complicated. Administration as well is simple and low-cost, and coverage lasts one year and naturally aligns with the farming cycle, so that the farmer, upon buying his next bag of fertilizer, will be covered for the following year.

Insurance via convenience store

Over-the-counter insurance – that is, life insurance coverage available in boxes on convenience store shelves – is a concept that has been gaining steam around the world. In South Africa, customers can now pick a desired funeral cover plan from their local supermarket's shelf. No underwriting is needed, the premium is paid at the cashier, and there is no complicated sales process. The consumer makes the purchase decision, and implementation could not be simpler or more convenient.

Critical illness

Critical illness insurance permits an insured to receive lump-sum payment if he or she is diagnosed with a critical illness covered by the policy. A standard, traditional plan pays a maximum of one claim, and then the policy expires. However, critical illnesses are not always terminal, and individuals could have more than one in their lifetimes.

Two recent innovations for this need are:

Staged trauma:

Improvements in medical knowledge, from diagnostics to treatment modalities, have increased survival ratios for critical illnesses such as cancer, especially if identified early.

Staged trauma, also known as early-stage critical illness (ESCI), pays staged benefits based on the severity of the covered illness.

ESCI pays lower benefit amounts upon claims for less severe critical illnesses, or for earlier stages of covered conditions. Premiums can be lower than those for standard CI products.

ESCI was first launched as a top-up product in Hong Kong, Singapore, Malaysia and Indonesia, using simplified/guaranteed issue for clients who had recently been fully underwritten for life, critical illness or health insurance.

Multi-pay trauma:

Multi-pay trauma is a critical illness policy that will pay an insured more than once, for multiple critical illness claims, over the course of the insured's lifetime. As a 2008 article in the professional medical journal *The Oncologist* stated: "recent data suggest that women with early breast cancer are more likely to die of heart disease that recurrent cancer." Multi-pay trauma covers such occurrences.

Multi-pay combines all defined trauma conditions into groups, each of which can be structured to contain:

- linked impairments
- linked organ systems
- impairments with similar causes

Policyholders can only claim once from each condition group at 100% of the face amount. However, some products can be structured to pay out more than once for the same condition (for example, cancer).

Matching the need: dowry/wedding planning

A large French bancassurer was selling savings products in Egypt. Sales fell short of expectations, so the bank interviewed a sampling of local clients, asking them what was important, what really worried them, and what their needs or discomforts were.

The top item for this market turned out to be dowry and wedding expenses. Clients were worried they might not have enough money for a dowry and/or for a wedding because of increases in the cost of living and other factors that may affect savings.

A savings plan specifically for dowries and weddings was designed for the banks to sell to their clients. A certain amount of money would be saved, and if not used, would provide a lump sum when the child reaches age 25.

In case of the death or total permanent disability of the parents, the premium would be waived, and the same lump-sum payment as planned comes to the child at age 25. The savings plan also provides free temporary accidental coverage from the date of application until the policy is actually issued.

With this new product, bancassurance sales skyrocketed.

Innovative advertising

Most life insurance agents prefer to avoid the words 'death' or 'disability' in their sales pitches, preferring instead to say 'any unforeseen event,' as mentioning those "d" words could offend or upset prospective clients.

Frank.net, a direct life insurance company in South Africa that began in late 2010, sought a different and more direct approach, designing an innovative slogan and advertising campaign that confronted death and disability frankly and directly.

The slogan? "YOU DIE, WE PAY". Simple, direct and award-winning. The radio commercials won a Loerie Gold award (South Africa's advertising and communication excellence awards) in 2011.

Mobile technology

In some less-developed markets, not everyone has a bank account or credit card. However, virtually everyone today has a mobile phone, and these phones are being increasingly leveraged for insurance sales and needs.

A life insurance company in Ghana partnered with one of the largest cellular operators in Africa to create a successful initiative to penetrate low-income populations in countries on the African continent by creating life insurance that can be sold via mobile phone.

The product reduced the cost of insurance by charging very low premiums, which are deducted from a user's mobile wallet, with SMS confirmation. The mobile phone can also be used to submit claims and queries.

ATM technology

How many times does the average adult use an ATM? Every few days? Once a day? Once a week? No matter how often, if you are an adult with a bank account, you use an ATM.

A Turkish insurer recently used this knowledge, along with intelligent market segmentation and customer profiling, to design simplified insurance coverage that could be sold exclusively through ATMs.

At the ATM, a pop-up screen appears when a bank client withdraws funds, marketing the low sum insured products. If the user is interested, the coverage can be issued in just two steps, with no underwriting needed.

Leverageability

Although some of these ideas cannot be applied in other markets, they might spark the sort of creative thinking that can steer your company toward innovation.

Today innovation is necessary if an insurance company wants to be successful. Because of their many client partnerships, reinsurers are knowledgeable about the most innovative activities in multiple markets. Partnering with the right client-focused reinsurer can help your company come up with high-profile and innovative products, tailored for your market and its needs, using simplified underwriting, enhanced lead generation and distribution, creative advertising and marketing, and effective leveraging of technology.

How Facultative Underwriting Develops a Market

By **Oscar Smith**
Head of Business Development, Middle East & Turkey

RGA International Corporation

Over the past half-century, facultative life underwriting – a service provided by reinsurers to help life insurers cover a broader range of underwriting risks – has become an important worldwide business and a standard line in many of the more developed markets. In emerging markets however, this concept is still relatively new.

First, let us look at the word 'facultative.' It has many definitions, depending on the area of investigation. In biology, for example, a 'facultative anaerobe' is an organism that can use oxygen by also has anaerobic methods of energy production. In law, 'facultative' is defined as 'empowering but not compelling the doing of an act,' and in philosophy, 'facultative' means 'that which may or may not occur.'

According to Barron's Dictionary of Insurance Terms, however, 'facultative' is defined as a term that denotes a reinsurer is exercising its 'faculty or prerogative to insure a risk or reject a risk from a ceding company.' In other words, a form of reinsurance where the reinsurer accepts a risk it is not obligated to accept.

Expanding on this definition, the process also encompasses an insurance company seeking to determine if it can underwrite a particular risk by ceding a portion of that risk to a reinsurer. Frequently, the risks in question are either medically impaired lives, individuals applying for a sizable amount of coverage beyond the insurer's maximum automatic underwriting capacity or individuals engaged in high-risk occupations or avocations. In all these cases, a specialist in facultative underwriting – frequently, a reinsurer – can analyze the application, plus any pertinent medical and (if applicable) financial evidence, and determine whether or not profitable terms can be offered to mitigate the risk. A facultative reinsurer's sizable database of information pertaining to impairments can frequently produce a 'yes' where the insurer's own information and processes might result in a 'no.'

A little history

Facultative underwriting first emerged in the 1960s in both the United States and South Africa. At that time, the service was very much an informal one: if Insurance Company A had a relatively large risk, the company's chief underwriter would call his counterpart at Insurance Company B and request it accept an amount of risk in excess of what Company A was able to accept. Each case's terms and conditions would be negotiated personally, chief underwriter to chief underwriter, often during an office visit or, better still, over coffee or a nice lunch.

By later in the decade, life reinsurers had begun to offer special terms for risk such as hypertension, heart attacks and diabetes in the form of an individual facultative facility. From there the process gained momentum, reinsurers moved to offering a full facultative service, and facultative reinsurance became a structured, formal line of business. Insurance companies would send policy information on cases for which they wished quotes to multiple reinsurers. If the reinsurers deemed the risks reinsurable, they would offer special terms for these applicants. A few years later, reinsurers began to provide facultative quotes for two additional classes of applicants: high-sum-assured individuals as well as individuals bearing avocation and aviation risk.

What needs to be remembered is how communication functioned in these early, pre-Internet days. Paper photocopies needed to be made of the full documentation file, and each batch of files needed to be sent by what today is called `snail mail' to the reinsurers. Reinsurers also employed couriers to make twice-daily rounds of their insurer clients – collecting cases in the morning and in the afternoon delivering what had been underwritten. Some reinsurers even sent couriers to airports to pick up the files that had been shipped by air for faster underwriting and then to airship the underwritten files back to the insurers.

Since then, facultative underwriting has spread throughout the world with technology improving and speeding its processes. The 1980s saw the introduction of fax machines which enabled insurers and reinsurers to fax paperwork back and forth, removing the need to photocopy and ship large quantities of documents. By the 1990s, computers were further enabling documents to be emailed to insurers.

Today, reinsurers that provide facultative quotes have computerized systems that, with just the touch of a button, enable insurers to electronically submit the financial and medical documentation factors necessary for a facultative quote. Basic information about the applicant, appropriate medical evidence and, if applicable, appropriate financial information and evidence comes in, is analyzed by the reinsurer's rules engines, and then a decision is produced. Turnaround times are measured in hours or minutes and frequently even in seconds – a huge difference from the many days or even weeks that such quotes would take in the early days.

Benefits

Reinsurers that provide facultative underwriting usually have a fully inclusive unit where this function is performed. Their dynamic underwriting manuals are continuously updated to reflect the most current medical advances and the reinsurer's own mortality and morbidity experience.

These reinsurers also have dedicated staffs, including qualified physicians and actuarial professionals who specialize in assessing and pricing non-standard cases. The broader knowledge means they are able to recommend aggressive decisions and better pricing, which benefits the client and the applicant and will result in increased sales for the insurer.

> For insurers, access to facultative quotes can help them build more effective and stronger client relationships.

In situations where the application is for a large sum assured, reducing volatility by reinsuring a portion of a large sum assured is often the way insurers will choose to go. Submitting the case for a facultative assessment often allows companies to write risks that are much larger than their own retentions will permit.

For insurance companies considering ceding portions of their risk, accessing facultative underwriting can be a way to launch a business relationship with a reinsurer, without either party being obligated to enter into a major commitment. Underwriters at the insurer and reinsurer can get to know one another without pressure, and as the insurer's own business grows and develops and more facultative quote needs emerge, a substantial insurer-reinsurer partnership, based on trust engendered through many quotes, can develop with minimal fuss.

For insurers, access to facultative quotes can also help them build stronger and more effective client relationships. As life cycles progress, insurance needs increase in complexity, and access to facultative underwriting equals more business underwritten, and stronger, more fruitful client relationships. ■

Will We Live Forever?

By **Garth Lane**
Capital and Financial Risk Actuary

RGA UK Services Limited

Most of us do not give much thought to this question for we all accept that we have a finite lifespan even if we put the thought of our ultimate death out of our minds until we grow old.

There are those though who, through the course of the centuries, have always subscribed to the cult of immortality. Some like Ko Hung (Ge Hong), a Chinese alchemist who died in 343 AD at age 60, believed in consuming substances like pearl and gold. Others like Roger Bacon, the 13th century philosopher, who died in 1292 AD at age 78, believed in a lifestyle based on extreme self-denial.

The cult of immortality has not disappeared – some more modern members practice the art of calorie restriction in the hope that they will extend their lives. Aubrey de Grey, the controversial theorist in the field of gerontology, believe that a structured engineering approach will be enable most people to grow older without any of the physical decline associated with aging. This is to say that he believes that science and medical technology will be able to eliminate or reverse ageing and by so doing enable us to live for an arbitrarily long time. Arguably his most infamous quote is, "I think the first person to live to 1,000 might be 60 already."


Aubrey de Grey

I think it is far more likely that the average human lifespan and limit to life will comform, for the foreseeable future, with writings from ancient prophets who recorded an understanding of an average lifespan and limit to life that we are only now achieving once more. Jeanne Calment, who lived to 122 years and 164 days, is the exception that proves the rule. Also it is only in modern times that we are starting to see the expectation of life moving out to 80 years.

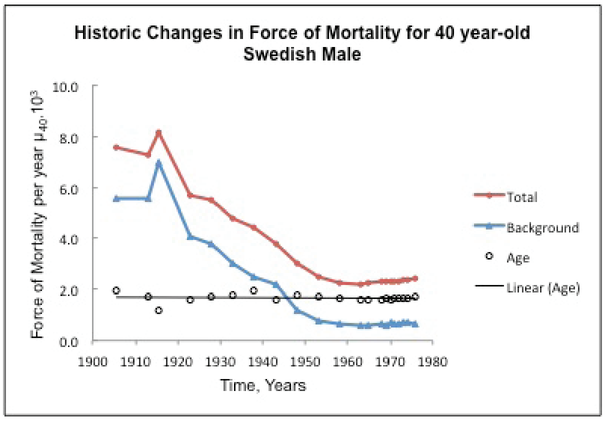
Recent improvements to longevity are fueling speculation that there is no limit to life. Mortality improvements running at over 3% per annum for some age groups have led to severe problems with pension funding and indeed are straining the ability of some western societies to support their rapidly growing older-age populations. The natural tendency is then for actuaries who have got their predictions so wrong over the course of the last few decades to compensate and to extrapolate from current high rates of improvement out into the future. We are now using ever more sophisticated tools to project improvements using statistical methods.

It is my view that we should pause and ask ourselves the fundamental question: What is driving these improvements? Is it medical advances that are helping us to live longer (or at least die at a higher average age), or is it in fact mean reversion to some innate life capacity that had been repressed by squalid living conditions in the Middle Ages?

I believe that it is helpful to have a theory that makes falsifiable predictions rather than believing that the future will be similar to the past. In this regard the application of reliability theory by Gavrilov and Gavrilova to mortality provides some intriguing insights. The theory simply requires that the living organism under consideration consist of multiple subsystems connected in parallel with binomially distributed initial defects in each subsystem. Each subsystem contains redundancies, and it turns out that the process of ageing can be mathematically described as an exhaustion of redundancy. The assumption of initial defects leads to an exponential increase in failure rates as the organism ages.

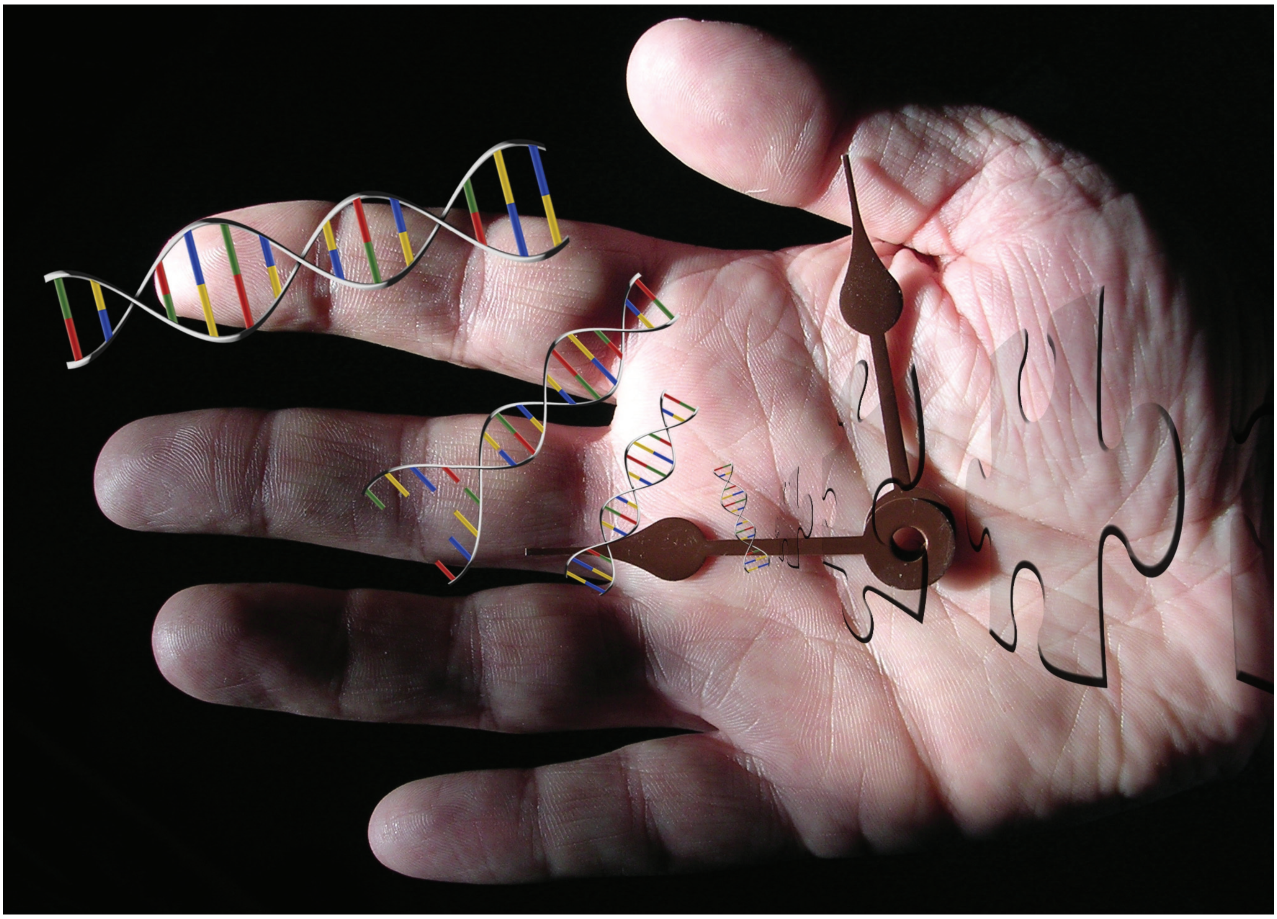
The theory predicts that organisms that satisfy some simple assumptions obey a Gompertz-Makeham law of mortality. This is a nice result because this law of mortality was first formulated in 1852. The force of mortality, ignoring mortality deceleration at extreme ages, then can be stated as $\mu(x) = A + Re^{\alpha x}$. This leads to the question as to how the parameters of this law of mortality have altered with time.

Gavrilov et al. have studied the progression of the two parameters over time in the Swedish population. The graph below examines the progression of the parameters for a 40-year-old male.



As can be seen, over the course of almost a century, all of the mortality improvement has come from the Factor A, which relates to accidental death, including infectious disease. The Factor alpha, which relates to age-dependent mortality, has hardly altered at all.

This finding puts medical advances in perspective in the sense that most mortality improvement has come from public health initiatives ensuring healthier living conditions, and of course from the discovery of antibiotics, immunization and medical treatments that make the



survival of infectious disease and traumatic accidents more likely. It seems that medical advances made little or no impact on our ability to live longer except in the sense that if you eliminate accidental death more individuals will survive to encounter senescence.

This brings us full circle back to Aubrey de Grey. If we are to hold back or eliminate ageing, we would have to do much more than just eat healthily and exercise. It would seem that in an ideal environment that our store of redundancy in our cellular subsystems would be exhausted more slowly, but in the end we would still not live beyond the capacity for life that we started out with at birth.

Aubrey de Grey says, rather hubristically in my view, referring to changes to the human body as we age:

"So, what are these changes? They (the ones that we have any reason to think are deleterious, anyway) are hearteningly few in number:

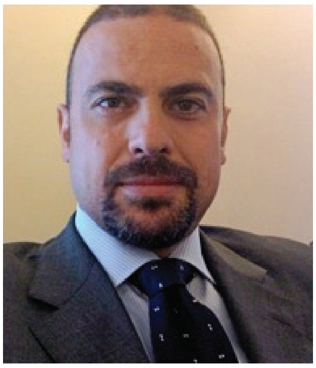
- Cell loss (without replacement)
- Oncogenic nuclear mutations and epimutations
- Cell senescence
- Mitochondrial mutations
- Lysosomal aggregates
- Extracellular aggregates
- Random extracellular protein cross-linking
- Immune system decline
- Endocrine changes."

The engineering solutions that he suggests require futuristic technology and even tinkering with the human genome – for example, moving mitochondrial DNA into the cell nucleus to give it the greater protection afforded by the nucleus against mutations.

These approaches ignore the morality and ethics of trying to extend human life by manipulating our cell biology. They also ignore the effects of natural selection. Although nature is not perfect, it is often the case that certain mechanisms such as cell senescence protect us from other diseases such as cancer, because if cells are allowed to survive forever they accumulate errors of duplication and mutations that sometime allow them to reproduce rapidly in an uncontrolled fashion.

I think that we should instead focus on nurturing the health of mothers and young children, thereby maximising the store of redundancy that we are endowed with rather than attempting to fix things at the end of life.

So, I do not think that we will live forever and I think that we should be very wary of well-meaning attempts to fix something that may not be broken.



by **Adriano de Matteis**
Assistant Vice President, Business Development, Europe South Africa (ESA)

RGA International Reinsurance Company Limited, Branch Office for Italy

Driving Product Innovation

Innovations in life insurance products work best when a product is stripped to its core seven pillars:

- What is the **need** that must be insured?
- Which **segment** of the population has this need?
- What is the best **distribution** channel to reach this segment of the population?
- What is the issue process and type of **underwriting** that would maximize marketability and profitability of the offering?
- What **coverage** best meets the need?
- Are there new tools or data available for **pricing**?
- How will this all be packaged and what **promotion** is the most effective, to both those buying the product and those selling it?

Each of the themes of these seven pillars – need, segment, distribution, underwriting, coverage, pricing and packaging/promotion – when monitored carefully over time, may contain a gem of an idea that can result in product innovation. If innovation starts in one theme, it is likely to affect the others, resulting in full, real innovation.

Instead of thinking about a product, let us think about recent trends, or changes in trends, concerning a need or segment of the population, how to reach new potential buyers (leads), how best to create a compelling or unusual advertisement to reach the targeted populations (the ones with the targeted need[s]), and so on.

Let us examine one example, in the U.K., where need (Pillar One) resulted in the development of the currently thriving product category of enhanced (or impaired) annuities.

Until about 15 years ago traditional payout annuities in the U.K. were 'one size fits all'. Everyone, healthy or sickly, smoker or non-smoker, received the same annuity product, which was priced in the aggregate.

As life industry knowledge of health and income factors and their impact on longevity has grown, so has awareness of a clear need for individuals with underwriting concerns such as health impairments to be able to purchase underwritten annuities. Substandard mortality risks, subject as they are to earlier death expectations, could, if their annuities were underwritten, qualify for higher annuity payments from their invested lump sums.

This need was unmet until enhanced annuities were introduced about 15 years ago. Since then, this product's popularity has grown by leaps

and bounds. According to a recent study by Towers Perrin research, enhanced annuity sales in the U.K. quadrupled from less than £500 million in 2002 to almost £2,000 million in 2009.

Here is how Pillar Two (targeted population segment) can drive product innovation for the diabetic market segment. Diabetics are a population with strong current and future health insurance needs. Complications from diabetes are many and systemic, and can include retinopathy, renal failure, and complications involving the nervous system (diabetic neuropathy), which, coupled with circulatory difficulties, can lead to limb amputation. Diabetes can also exacerbate the risk of heart disease and stroke. Because of all these risk factors, critical illness policies routinely screen out diabetics – why not look at diabetics through 'product innovation glasses'? Could a critical illness product be created that would provide diabetics either a full or partial lump-sum benefit, depending on the diagnosed ailment?

Recently, products have been introduced in countries such as India, Singapore and Spain to address this target market and its specific needs. In one of those products an insured can receive a full lump sum if diagnosed with End-Stage Renal Failure, or a partial amount for a Procedure-Based Benefit, such as limb amputation due to diabetic complication or laser treatment for diabetic retinopathy.

As a driver of innovation, the Internet is also dominating discussions today about Pillar Three, distribution. Successful Internet distribution for insurance products requires certain critical success factors, such as the ability to drive traffic to a website, a strong brand, simple products that meet a range of customer needs, the ability to underwrite electronically, call centre support for those clients who prefer live interaction, and strong claims support.

Recently, a life insurer sought to develop an Internet-sold term product for affluent individuals. This seemed an unlikely endeavour, as the affluent generally require high face amounts (generally at $500,000 and up), and they need to be medically underwritten.

From this wish came a term life policy with face values of up to US$1 million, available for purchase over the Internet. The product features simplified medical underwriting, resulting in speedy application completion times and, more than anything else, has created an entirely new distribution channel for the insurer. So far, sales have exceeded expectations and the acceptance rate is unusually high.

As you can see from the above case studies, even if the idea may have stemmed from one pillar it has actually affected most of the others, often causing innovation in some other pillars.

By stripping a product to its core elements, one can easily see plenty of room for innovation and differentiation. With this approach come new products, excitement, and plenty of growth potential.

If you consider the many population segments your company serves, and the various needs of each, innovative ideas are likely to bubble up for appropriate, reasonably priced coverages. Then, after research, model-building, and testing, the innovative ideas will have generated innovative products that match, as closely as possible, their target markets' needs. ■

Know Your RGA Middle East Colleagues

Ashraf Al Azzouni is **Managing Director**, and has been instrumental in establishing the RGA Middle East office. He joined RGA in September 2010 and recruited the first employee in September 2011 after obtaining RGA Middle East's license from the Dubai International Financial Centre.

Ashraf has more than 18 years of experience in life and health insurance and reinsurance in this region, with roles in the general management, distribution, technical and financial functions of the business.
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Martin Houle is our **Chief Actuary**, and has been with RGA since 2005. Prior to joining RGA he provided consultancy for leading actuarial organizations. His specializations include life and health product design and pricing as well as enterprise risk management.

Martin is a Fellow of the Society of Actuaries (FSA) and a Certified Enterprise Risk Analyst (CERA).

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Oscar Smith is the **Head of Business Development, Middle East & Turkey**, and has been with RGA since 1998. In his current role, which he took on in 2009, he has been instrumental in building and developing RGA's business presence and underwriting capabilities in the Middle East and Turkey.

Oscar has more than 33 years of experience in the life insurance industry, the majority of which has been spent specializing in reinsurance.

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Dr. Dennis Sebastian is our **Regional Director, Health**, and is responsible for the Middle East office's health initiative in the region.

Dr. Sebastian is a medical graduate, with post-graduate qualifications in Health Care Management from the Royal College of Surgeons in Ireland; Social Health Insurance from the International Labour Organization's (ILO) International Training Centre in Turin, Italy; and General Management Program from the Indian Institute of Management, India (IIM-A). He has 15 years of experience in health reinsurance.
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Tamer Saher is the **Head of Product Development**. He has 14 years of experience working in reinsurance and direct insurance in the Middle East region. Tamer holds a Bachelor of Science degree in actuarial science and an M.B.A. Prior to joining RGA, he was Assistant Director for Family & Medical Retakaful for a takaful reinsurer.

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Kudzai Gumbie is **Senior Pricing Actuary** and has been with RGA since 2006. His experience includes pricing, product development, longevity risk transfer modeling, actuarial valuations, risk and capital management reporting, and Solvency II implementation.

Kudzai received his Bachelor of Business Science degree with Honors in Actuarial Science from the University of Cape Town, South Africa. He is a Fellow of the Institute and Faculty of Actuaries (FIA).

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T. S. Sundararajan is our **Senior Pricing Analyst**. He has 20 years of experience in the life insurance and reinsurance industries, working in the Indian and Middle East markets.

Sundar is an Associate member of the Chartered Insurance Institute (ACII), London, and Fellow Member of the Insurance Institute of India (FIII).

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Amrit Sharma is our **Pricing Analyst**, and has been with RGA since 2012. He received his bachelor's degree in mathematics from Delhi University in India, with a master's degree in actuarial science from University of Madras, India. He is currently responsible for the group facultative business. His six years of experience encompass work in India and the Middle East.

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Osama Al Khatib, who joined RGA in June 2012, is the RGA Middle East **Office Manager**. He holds a degree in finance from Applied Science University in Jordan. Before joining RGA, Osama worked in leading insurance and other business functions for more than five years.

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RGA 2013 Awards and Recognitions

Best Overall Life Reinsurer

2013 Flaspöhler Survey (Direct Writers Evaluate Reinsurers/Life N.A.)

FLASPÖHLER RESEARCH GROUP

#1 in Business Capability Index

nmg CONSULTING

In 2012 NMG Consulting studies, RGA was ranked #1 globally, and in national and regional studies in the Asia, Canada, Europe, India, Italy, Japan, Malaysia, Mexico, Singapore, South Africa, Taiwan, U.K. & Ireland, and U.S. (individual mortality) markets, on NMG's Business Capability Index.

Australia and New Zealand Reinsurance Company of the Year

INSURANCE INDUSTRY AWARDS 2012 WINNER

2012 Australia and New Zealand Insurance Industry Awards

Life Reinsurer of the Year

2012 Asia Insurance Industry Awards

ASIA INSURANCE INDUSTRY AWARDS 2012

Recognized for Forward Thinking

Innovation Showcase

2013 Best's Review

Upcoming Events

4th RGA Middle East Underwriting Seminar
Date: Quarter 3 of 2013

2nd RGA Ramadan Iftar
Date: Quarter 3 of 2013

1st Business Development Professionals Get-Together
Date: Quarter 3 of 2013

1st Underwriting Professionals Get-Together
Date: Quarter 3 of 2013

1st Health Professionals Get-Together
Date: Quarter 4 of 2013

2nd CEO Dinner
Date: Quarter 4 of 2013

2nd Actuarial Professionals Get-Together
Date: Quarter 4 of 2013

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