



SOCIETY OF ACTUARIES

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**Session 115 OF, Untapped Opportunities for
Actuaries in Health: The Next Frontier**

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Untapped Opportunities for Actuaries in Health: The Next Frontier

Society of Actuaries SOA 10 Annual Meeting
October 20, 2010

Jennifer Gillespie and Rebecca Johnson



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Agenda

- Overview
- Health research
- Non-traditional opportunities
- What skills are needed
- Getting started



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Overview



Health Research



KEY FINDINGS

SEGMENT	OPPORTUNITIES	BARRIERS
Biotech Manufacturer	<ul style="list-style-type: none"> Financial risk analysis (i.e., profit/loss, new product development risk analysis, etc.) 	<ul style="list-style-type: none"> Smaller companies with limited budgets New employees will have to hit the ground running/ little to no training
Healthcare Consulting	<ul style="list-style-type: none"> More flexible projects— many skills needed Likes "logical thinkers" with strong business skills Analysis functions from other companies (especially pharma and biotech) are being outsourced to consulting companies 	<ul style="list-style-type: none"> Many require previous consulting experience Need to bring in a book of business in most cases Prefer to hire health professionals
Wellness Company	<ul style="list-style-type: none"> Growth industry Looking for individuals with strong analytical skills 	<ul style="list-style-type: none"> Requires clinical knowledge Headed by medical professionals



KEY FINDINGS

SEGMENT	OPPORTUNITIES	BARRIERS
Large Hospital System	<ul style="list-style-type: none"> Analysis and modeling of large healthcare databases 	<ul style="list-style-type: none"> Requires clinical knowledge Staffed by MDs licensed in foreign countries
Health Plans	<ul style="list-style-type: none"> Have knowledge of and high respect for actuaries Less healthcare experience required 	<ul style="list-style-type: none"> MBA+ desired Use consultants to monitor government policies
Health Economics Organizations	<ul style="list-style-type: none"> Outcomes research 	<ul style="list-style-type: none"> Need more knowledge of clinical trial design



KEY FINDINGS

SEGMENT	OPPORTUNITIES	BARRIERS
Pharmaceutical Manufacturer	<ul style="list-style-type: none"> Clinical studies Financial risk analysis (i.e., profit/loss, new product development risk analysis, etc.) 	<ul style="list-style-type: none"> Clinical staff looking for PhD in Statistics Knowledge of study design needed
Health IT	<ul style="list-style-type: none"> Less healthcare experience required Familiarity with actuaries Growth industry 	<ul style="list-style-type: none"> May not be willing to pay high salary SQL database language needed
Pharmacy Benefit Managers	<ul style="list-style-type: none"> Familiarity with actuaries Growth industry Training usually offered 	<ul style="list-style-type: none"> Must be SQL trained Clinical (i.e., nursing, medical, pharmacy, etc.) background preferred



ACTUARIAL VALUE PREPOSITION

- **Neutral and objective voice**
- **Modeling and data**
 - Not just the technical, but the sophistication, rigor, discipline and transparency
- **Actuarial brand**
 - Needs to be strengthened in health care industry



Non-traditional Opportunities



CASE STUDY #1

- The Client: Proctor & Gamble
 - Gold standard in consumer products industry
 - Household items including Duracell[®], Charmin[®], and Tide[®]
 - Beauty & Grooming like Cover Girl[®], Ivory[®], and Old Spice[®]
 - Health & Wellbeing such as Prilosec OTC
- The Challenge
 - Who is using PPIs?
 - Where are the cost savings opportunities for employers and health plans?



CASE STUDY #1

- ❑ The Solution
 - Webinar
 - Web-based model to estimate potential PPI savings
 - White paper – *Proton-Pump Inhibitors: A High Cost Employee Benefit with Over-the-Counter Alternatives*
 - Website www.otcbenefitadvisor.com
 - Employer group roundtable lecture circuit



CASE STUDY #1

- ❑ The Opportunity
 - Companies indirectly related to “traditional” healthcare business
 - Consumer product companies
 - Health policy firms
 - Research organizations
 - Matching actuarial techniques with the power of technology and communications



CASE STUDY #2

- ❑ The Client: Not-for-profit hospital
- ❑ The Challenge
 - Dissolution of a joint venture with partner hospital



CASE STUDY #2

- ❑ The Solution
 - Enterprise valuation in preparation for sale of ownership rights
- ❑ The Opportunity
 - Using traditional actuarial techniques in a non-traditional setting
 - Hospitals
 - Physician practices and carve-out benefit management companies, especially risk bearing ones



CASE STUDY #3

- ❑ The Client: Pharmaceutical manufacturer
- ❑ The Challenge
 - Financial risk model for new drug product used to treat substance abuse



CASE STUDY #3

- ❑ The Solution
 - Financial risk model
 - White paper demonstrating potential for reduction in hospitalizations with compliance/use of new drug
- ❑ The Opportunity
 - Merging actuarial techniques with clinical pathways
 - Pharmaceutical companies
 - Wellness/disease management companies



CASE STUDY #4

- ❑ The Client: Specialty Practice Management Company
- ❑ The Challenge
 - Risk ventures for managed care business



CASE STUDY #4

- ❑ The Solution
 - Operational consulting services with actuarial support
 - Risk ventures for managed care business
- ❑ The Opportunity
 - Merging actuarial techniques with larger business strategy
 - Healthcare consulting
 - Health plans
 - Integrated health systems



What skills are needed



MARKET RESEARCH RESULTS

- ❑ Opportunities exist for actuaries in many industry segments

- ❑ Analytics and data experts needed:
 - Wellness/disease management companies
 - Clinical outcomes and studies
 - Health plans (analytics departments) and pharmacy benefit managers
 - Health care management consulting



MARKET RESEARCH RESULTS

- ❑ **The need for business skills was consistently mentioned:**
 - Strategic/big picture thinking
 - Communication (written, oral)
 - Adaptability to change

- ❑ **Technical barriers to these opportunities**
 - Clinical knowledge
 - Study design
 - Policy/regulatory knowledge (not always missing)



GFK'S CONCLUSIONS

- ❑ **Actuaries must step “out of the box” for nontraditional roles**
 - Enhance competitiveness through communication skills and strategic thinking

- ❑ **Actuarial credentials are not recognized outside of traditional roles**
 - The actuarial brand needs to be strengthened in other areas of the healthcare industry
 - Focus should be on showcasing transferable skills, and not on credentials



GFK'S CONCLUSIONS

- ❑ **Strategic thinking and decision making skills are desirable and in short supply**
 - True for all health analytics and forecasting roles

- ❑ **Graduate degrees are highly valued, but experience trumps an MBA**
 - Look for opportunities to place new graduates in entry-level healthcare positions as part of “healthcare” credentialing



Getting Started



OUR CHALLENGE TO YOU



10. Pay attention
 - to the news, health care journals
 - to Health Reform opportunities and shifts
9. Exploit the niches
 - Unique projects that can be lifted and shifted
 - Take risks
8. Embrace sales and marketing
7. Talk to your alma mater



OUR CHALLENGE TO YOU



6. Ask the next question
 - Demonstrate your strategic viewpoint
5. New channels – when looking for a new role
 - New types of organizations
 - Non-actuarial recruiters and searches
4. Network network network
 - With other professionals at your company
 - Outside your company



OUR CHALLENGE TO YOU

3. Demonstrate the value of your credential
 - Your skills are important
 - Check your arrogance

2. Share your ideas
 - Research and education
 - Actuarial profession and especially outside

1. Communicate effectively
 - Less concern with the “what”, more concern with the “how”

