



SOCIETY OF ACTUARIES

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Getting Actuaries More Engaged in Population Health

by Robert Lieberthal

Today's health actuaries are expected to be experts in managing the health of insured populations. It is no longer sufficient to select assumptions, calculate premiums and manage deviations from expectations. Health insurance plans include new benefits, such as disease management programs, and the new health law includes new forms of health insurance, such as accountable care organizations. Learning more about these population health programs will give actuaries the opportunity to have a "seat at the table" when the programs are designed, and give actuaries an inside view of the actuarial implications of the new health care landscape.

Population health is a collaborative discipline that seeks to leverage all the determinants of health to maximize the health of populations. Population health inputs include personal behaviors, medical care and the public health infrastructure, as well as the social and economic context at the community and national level.¹ The debate over insurer rating of doctors for cost and quality is driven by the complexity of separating provider performance from other population health factors outside doctors' control.² Those opposed to rating schemes are correct that genetic factors, peer effects and other outside influences all affect health, and that claims data is necessarily limited to insured medical care. However, actuaries know that claims data can be a powerful tool for monitoring health as well as costs and is often more accurate than clinical records or patient perceptions of physician quality. Justifying the use of retrospective claims analysis data could improve population health and reward high quality care.

Population health determinants like public health and health policy often have actuarial implications. The public health system is delivering

behavioral interventions, focusing on environmental health issues and developing community care systems, which have the potential to change the health care costs of insured populations. Health policy changes may also drive costs up (or down). In Philadelphia, the Department of Public Health received an American Recovery and Reinvestment Act (ARRA) stimulus grant to promote healthy lifestyles through neighborhood-level interventions, including working with the owners of corner stores to encourage them to carry more fresh produce.³ If these microlevel population health interventions lead to healthier behaviors, they could lead to reduced short-term health care costs as utilization decreases or increased costs in the long term as people live longer. Actuaries have the chance to engage with the people designing interventions, to help predict the financial consequences of health interventions and maximize bang for the buck.

My university started a new school to serve as a locus for the research and teaching needed to improve population health. Thomas Jefferson University, located in downtown Philadelphia, is widely known for its large private medical school and elite care by clinician-researchers. The Jefferson School of Population Health, led by our dean, David Nash, M.D. M.B.A., includes a research faculty from fields as diverse as pharmacy, public health, epidemiology and health economics, with a common goal that "... interdisciplinary collaboration will strengthen the foundation of the population health infrastructure and lead to improved population health management."⁴

Our teaching offerings include novel continuing professional education and academic programs centered on population health. Our College for Value Based Purchasing is "...a practical, inten-



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¹ Kindig, D. and Stoddart, G. 2003. What is Population Health? *American Journal of Public Health* 93(3): 380-383, March.

² Yee, C.M. 2010. AMA Battles Insurers over Doctor Ratings." *Minneapolis-St. Paul Star Tribune*, July 19. <http://www.startribune.com/lifestyle/health/98797709.html>

³ Mallya, G. 2010. "Get Healthy Philly: Policy and System Change to Promote Healthy Eating, Active Living and Tobacco Control." Presentation, Jefferson School of Population Health. Health Policy Forum, Oct. 13.

⁴ Nash, D.B., et al. 2011. *Population Health: Creating a Culture of Wellness*. Sudbury, Mass.: Jones and Bartlett Learning.



sive 3-day program to help employee benefit managers meet the growing challenges of providing high quality health benefits and managing rising benefit costs.” We developed the program by partnering with the National Business Coalition on Health and HealthCare 21 to fill an unmet educational need of benefits managers. Our master’s in chronic care management is a first-in-the-nation program designed specifically for managed care and disease management leaders struggling to deal with a new world of pay for performance.

Our research projects are focused on population health problems that are of interest to both payers and providers. One example is our migraine quality measurement project. The aims of the project were to improve quality measures for migraine care to improve care and to reduce preventable health care and disability costs.⁵ The end result is a set of outcome measures in diagnosis, utilization and volume of care, and other quality indicators that is being tested in health plans for usability and effect on costs. We are also responsible for editing four peer-reviewed journals, including *Population Health Management*, the official journal of DMAA: The Care Continuum Alliance.

Our School of Population Health is one of a growing number of settings where researchers, payers and practitioners are collaborating to improve health. Many population health priorities are the same nontraditional practice areas that the Society of Actuaries has identified as growth areas with limited actuarial representation.⁶ Our teaching goal is to work with health professionals who want to “develop and enhance” population health skills to help them identify and learn these skills. Our research goal is to partner with the ideal set of collaborators for all population health research projects. I see opportunities for many such teaching and research collaborations with actuaries looking to become more engaged in population health. ■

⁵ Leas, B.F., et al. 2008. Assessing Quality of Care for Migraineurs: A Model Health Plan Measurement Set. *Population Health Management* 11(4): 203–208, August.

⁶ Society of Actuaries. “Untapped Opportunities for Actuaries in Health Care: Market Research Summary Report to Membership.” <http://www.soa.org/files/pdf/prof-int-health-untapped-opp.pdf>