

Predictive Modeling

NEWS

Journal Scan

BMC Medicine

JHU CPHIT Team Details Costs, Predictors of Opioid Abuse

“Within a study cohort of 890,000 health plan members, we identify the increased healthcare costs and utilization -- emergency department use and hospitalization -- associated with high-risk markers in the same year and in the next.”

The team at the Johns Hopkins University Center for Population Health Information Technology and colleagues at the JHU Center for Drug Safety and Effectiveness – both in the Bloomberg School of Public Health – have published research in *BMC Medicine* that “reports on the development and testing of three measures of ‘high-risk prescription opioid use’ that can be derived from pharmacy claims data,” says Jonathan P. Weiner DrPH, a Professor of Health Policy & Management and of Health Informatics, CPHIT Director, ACG Co-Developer and Director of the ACG R&D Team at Hopkins – and a *Predictive Modeling News* Editorial Advisory Board member. The metrics, he adds, “can also be applied with EHR or prescription drug monitoring program data as well.”

PDPM databases track controlled substance prescriptions in a state – both prescribing and patient behaviors – helping facilitate a nimble and targeted response to problems.

Says Weiner of the online journal report: “Patients who are ‘chronic’ opioid users in Year 1 have healthcare costs over \$20,000 higher in Year 2 when compared to other health plan members. After adjusting for demographics and all morbidities the patient may have -- some of which are linked to the pain medication -- the ‘extra’ cost risk in Year 2 is over \$6,000 per patient.”

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Duncan’s PM/RA Text Now in 2nd Edition; Expert Details Changes

New PMN Advisory Board Member book “provides a comprehensive guide for healthcare actuaries and other professionals interested in healthcare data analytics, risk adjustment and predictive modeling,” according to statement from the publisher.

Ian Duncan FSA FIA FCIA FCA CSPA MAAA, Adjunct Associate Professor of Actuarial Statistics in the Department of Statistics and Applied Probability at the University of California, Santa Barbara, and President at Santa Barbara Actuaries Inc. – and a *Predictive Modeling News* Editorial Advisory Board member – reports the just-published 2nd Edition of *Healthcare Risk Adjustment and Predictive Modeling*, which his publisher, Actex Learning, points out is “on the required reading list for the SOA Group and Health Specialty exam.” The new edition “greatly expands on the 1st Edition,” the publisher’s statement adds, with new chapters covering Accountable Care Organizations and predicting hospital readmissions; it includes sample R code and access to four datasets for applied learning.

The book “begins with an overall discussion of health risk, clinical identification algorithms for diagnostic grouping and the use of grouper models,” the statement explains, “before moving into data mining concepts and common approaches used by modelers. Duncan explores predictive modeling and risk adjustment case studies through examples from Medicaid, Medicare Advantage, ACA Exchanges, ACOs, disability and depression diagnosis.” Data sets are provided “for those wishing to experiment with their own models,” it adds, noting that “the use of predictive modeling and risk adjustment outside of the US is also discussed.” Indeed, the publisher says, Duncan’s book “sets the technological stage for the latest application of predictive modeling in the actuarial profession.”

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