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Medical Center



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Joint Replacement
Joint Reconstruction
Ayesha Abdeen, M.D.
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Robert G. Davis, M.D.
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Orthopaedic Oncology
Megan E. Anderson, M.D.*
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*Physical Medicine &
Rehabilitation*
Stefan C. Muzin, M.D.

Spine Surgery
Umesh S. Metkar, MD
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Sports Medicine
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Trauma Surgery
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* Denotes Chief of Service

Dear Editor Fang-Fang Ji,

Thank you to the editors and reviewers of WJO for commenting on our manuscript titled *Mandated Health Insurance Increases Rates of Elective Knee Surgery* (ID#: 39733). Thank you for the comments and opportunity for revisions. We have re-submitted our revisions and eagerly await your reply. Below see our comments to the reviewers. We hope the changes made during the review process are acceptable for publication at your journal.

Reviewer ID 02710967

The study has multiple limitations and some parts of the results need some explanation. The authors found that, workers' compensation 10.0% pre-reform and 16.7% post-reform ($p = 0.2070$); and uninsured patients' 7.0% pre-reform and 8.3% post-reform ($p = 0.6249$). Workers' compensation cases has nothing to do with the ACA, how would you explain such an increase. Further, the study also found some increase in the uninsured patients after the reform application which contradict the authors' hypothesis for the study.

Response: We thank the reviewer for the comments provided.

While the ROS increased for the Workers' Compensation group, it was not statistically significant. This was likely due to the fact that this group was underpowered. However, the increase in ROS for this group has been documented before. Brinker et al. evaluated rates of surgery from a single group of 40 orthopaedic surgeons in private practice working in private, nonprofit, and academic hospitals, in a large metropolitan area between 1999 and 2004 (Brinker MR, O'Connor DP, Pierce P, Spears JW Clin Orthop Relat Res. 2006 Oct; 451():257-62). They found higher rates of surgery among patients with Workers' Compensation compared with other payer types, but similar rates of surgery among the other payer types, including self-paying patients. Gundle et al. evaluated surgical rates after meniscal tear at one orthopaedic practice from 2003 to 2006 (Gundle KR, McGlaston TJ, Ramappa AJ J Bone Joint Surg Am. 2010 Oct 20; 92(14):2452-6). They found higher rates of surgery among patients with Workers' Compensation compared with private insurance, and lower rates of surgery among self-pay patients compared with those with private insurance. So our finding that the ROS increased (although statistically insignificant) is consistent with prior studies and some hypotheses have been put forth. Studies comparing the Workers' Compensation population with other populations have identified several psychosocial factors that influence treatment and outcome (Atlas SJ, Tosteson TD, Hanscom B, Blood EA, Pransky GS, Abdu WA, Andersson GB, Weinstein JN Spine (Phila Pa 1976). 2007 Aug 15; 32(18):2019-26; Arthroscopic acromioplasty: a comparison between workers' compensation and non-workers' compensation populations. Nicholson GP J Bone Joint Surg Am. 2003 Apr; 85-A(4):682-9). We did not account for these factors though future studies would benefit from such consideration.

The *number* of the uninsured population decreased after healthcare reform. The *rate of surgery* in the



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uninsured population increased after reform (Figure 3). This is consistent with our conclusions. We apologize if there is any confusion and if any further clarification is required, please let us know.

Reviewer ID 02705018

This is an overall well structured manuscript dealing with an interesting topic. However I am afraid is written in a somehow comprehensive and complex style and it is not very easy to be read. With a rewrite especially the discussion in a more simple form I believe that it would worth publication.

Response: We thank the reviewer for the comments. We have made a few changes in the discussion to help the paper flow better. We also attempted to make it more concise, hoping to improve the style. We kept a large part of the discussion as is given the positive reviews from the other reviewers. If you feel further edits are needed, we would be pleased to take another look. Once again, thank you for the comments.

Reviewer ID 02691156

The title is referring directly to the problem at hand. The abstract is sufficient. Key words reflect the focus of the manuscript. Introduction is sound and clear. Material and Methods In this study, 2640 patients were enrolled from the pre-reform period and 7780 during the post reform. Eligible patients were limited to those seeking care from three orthopaedic surgeons with established practices at one academic institution throughout both study periods. When compared, the pre- and post-reform ICD-9 codes were found to be identical, suggesting that the spectrum of disease in both periods was similar. These ten diagnosis codes were then used to identify all new patients seen by three surgeons in pre-reform and post-reform periods. Results The population of uninsured patients dropped significantly post-reform from 8% to 3%, and the population of private insurance increased significantly from 57% to 61%. Discussion You discussed in details a number of factors that might have influence to the eligibility of each patient such as: age, sex, highest level of education, body mass index (BMI), dates of service, ICD-9 codes, and insurance status at time of presentation were recorded. Also, the billing database contains twenty-one different providers. Limitations eligible patients were limited to those seeking care from three orthopaedic surgeons with established practices at one academic institution throughout the study periods and not in patients from different orthopaedic departments References are cited appropriately the latest references while the submitted manuscript is supported by 11 references. The submitted manuscript contains useful information for physicians, administrators and even for patients. The current investigation is based in patients seeking care from 3 surgeons in the same department and not in different orthopaedic institutions. The main question to under investigation is the influence of insured or uninsured to the eligibility of patients for elective knee surgery. No doubt that the USA health care system is different of that of other countries and is dominated by different legal acts. Also, the uninsured patients are reluctant to seek surgical treatment since they cannot cover expenses. Scientific community's interest is to ensure that the quality of health care insurance reform has value for the benefit of patients. That should be the future direction for any health care reform for all over the world countries and not only the reduction of health care costs for the insurance companies benefit.

Response: We thank the reviewer for the comments. Limitations are already noted in our paper and again we thank the reviewer for the detailed comments.

Reviewer ID 02699758

The authors demonstrated the effect of the reform of healthcare insurance on the rates of elective knee surgery in the tertiary-care single academic medical center. The rates of knee surgery increased in the post-reform compared to those in the pre-reform. Although the health insurance system is not



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familiar with me, the manuscript was well discussed and sample size was large enough. I recommend the manuscript to be accepted without revision.

Response: We thank this reviewer for the kind comments. While some changes were made to the discussion, we attempted to keep a large part of the discussion in place with revisions as noted.

Reviewer ID 02444715

The paper : Mandated Health Insurance Increases Rates of Elective Knee Surgery is very interesting , and represent a very important point of view The paper include a very similar topic to another paper published in 2015: AMA Surg. 2014 Aug; 149(8): 829–836. doi: 10.1001/jamasurg.2014.857
PMCID: PMC4209916 NIHMSID: NIHMS579672 PMID: 24988945 Understanding the effect of insurance expansion on utilization of inpatient surgery Chandy Ellimoottil, M.D.,1,3,4 Sarah Miller, Ph.D.,2 John Z. Ayanian, M.D., M.P.P,4 and David C. Miller, M.D., M.P.H.1,3,4

Response: We thank this reviewer for the kind comments. We agree with the comment. The key finding from the paper was that insurance expansion in Massachusetts was associated with increased rates of discretionary surgery or elective surgery. This is consistent with our findings.

Sincerely,

Arun Ramappa, MD
Chief of Sports Medicine, Beth Israel Deaconess Medical Center
Associate Professor, Orthopedic Surgery, Harvard Medical School