



## Short Communication

## Mitigating the impact of the year end spike in elective surgery on surgeon and staff well-being: A surgical perspective<sup>☆,☆☆,☆☆☆</sup>

Dhairya Shukla<sup>\*</sup>

Medical College of Georgia, Augusta, GA, USA

Terry Gilliland

Steamboat Advisors, Formerly Blue Shield of California, Oakland, CA, USA

Brooke Gurland

Stanford University School of Medicine, Stanford, CA, USA

Sharvil Patel

Emory University, Atlanta, GA, USA

Tait Shanafelt

Stanford University School of Medicine, Stanford, CA, USA

### Consent

Burnout among healthcare workers is a public health crisis with impacts on clinicians, patients, and healthcare organizations [1]. According to a 7-factor-model, the key drivers of burnout include excessive workload, inefficiency, problems with organizational culture, lack of control over work, problems with work-life integration, lack of social support, and erosion of meaning derived from work [2]. The cyclic nature of demand for healthcare services brought about by the US insurance system's enrollment and benefits structure potentially contributes to the clinician workload issues. While most health systems can staff for peaks and valleys in patient volume due to variables like flu season or holidays (e.g., 4th of July, New Year's Eve), this year-end increase in elective surgical volume differs in that it is, in part, an unintended

consequence of the current design of enrollment and benefits in the US medical insurance system. Since many deductibles annually reset in January, consumers with non-emergency or elective procedures often delay costly procedures until their deductible has been met so insurance covers a larger percentage of the cost. This creates a recurring pattern where the levee of the annual deductible cap is breached in the last few months of every year, flooding all surgery centers simultaneously and precluding typical solutions of locums or temporary staffing [3]. This year-end reset structure generates extreme work intensity, creates an emotional and physical burden on healthcare workers, and limits the ability of clinicians to take time off at year end when their partner and/or children also have time off.

Insurance open enrollment periods have customarily occurred

<sup>\*</sup> One of the authors, Dr. Tait Shanafelt has the following disclosure.

<sup>☆☆</sup> Dr Shanafelt is co-inventor of the Well-being Index instruments (Physician Well-being Index, Nurse Well-being Index, Medical Student Well-being Index, the Well-being Index) and the Participatory Management Leadership Index. Mayo Clinic holds the copyright for these instruments and has licensed them for use outside of Mayo Clinic. Mayo Clinic pays Dr. Shanafelt a portion of any royalties received. As an expert on the well-being of healthcare providers, Dr. Shanafelt frequently gives grand rounds/key note lecture presentations and provides advising for healthcare organizations. He receives honoraria for some of these activities.

<sup>☆☆☆</sup> All other authors have no conflicts of interest.

<sup>\*</sup> Corresponding author. 20 Wellington Court, Midland, 31820, Georgia.

E-mail addresses: [dhairyashukla@gmail.com](mailto:dhairyashukla@gmail.com), [dshukla@augusta.edu](mailto:dshukla@augusta.edu).

during the Fall. Payers and employers utilize limited enrollment times to encourage both sick and healthy members to enroll in health insurance during a specified period of time, thereby preventing the potential for adverse selection, where disproportionately sick patients seek insurance while healthier patients do not [4]. The Fall enrollment period translates to calendar-year insurance schedules for both private and government insurance plans that reset on January 1st.

After meeting their deductible, patients are incentivized to maximize insurance benefits and schedule elective surgeries near year-end. Clinicians and staff subsequently accommodate this surge to compensate for a payment system that results in patients bearing higher costs if elective procedures are not performed by year end. An analysis by Athena Health of 3.5 million visits in 2015 found that average out-of-pocket obligation for an outpatient orthopedic visit dropped from \$63.23 in January to \$39.60 (37% reduction) in December as visit volumes rose 13% [5]. Such differences are magnified dramatically for surgical procedures which can cost tens of thousands of dollars. These forces generate a moral conflict for clinicians, who must choose between taking time off with their families during the holidays or extend hours and adding surgical workdays to prevent patients from incurring greater out of pocket cost for the same case performed only weeks later [6].

New strategies are necessary to change the cyclical nature of insurance enrollment and benefits. Table 1 outlines potential strategies for governmental, small and large business, insurance company, and healthcare organization stakeholders. One system-level approach is for insurance companies to extend benefit accumulators to patients remaining on plan who were scheduled for elective surgery before December 1st or to offer the option of reduced co-pay for elective procedures at other times of the year. This would reduce the burden on clinicians and staff during year-end by redistributing cases to the typically low-volume months. Another potential strategy is to stagger the deductible reset date throughout the year by employer or employee. There are likely multiple separate population segments that would be separated out to give relief to providers. Particularly, patients electing to schedule surgeries right before their deductible reset for monetary reasons and patients who schedule surgeries at the year-end due to familial and caregiver support during longer breaks from work would be separated with a new reset date. With proper evaluation and data-driven design, these strategies should serve to reduce the cyclical nature of clinician workload brought about by the current insurance enrollment and benefits configuration.

Even where insuring organizations cannot make drastic reforms to enrollment dates and deductible resets, individual employers – in both public and private spheres – purchasing insurance can influence deductible reset dates by staggering their enrollment dates as well as how the insurance enrollment period is defined. Achieving staggered employer enrollment dates requires insurance purchaser buy-in, but there are two ways the actual implementation can take place: insurance payers design a distributed schedule and designate enrollment dates for agreeing employers to evenly distribute deductible resets or employers collaborate with one another to begin enrollment periods in a distributed manner. In the first scenario, insurers could offer purchasing employers the opportunity to opt-in to an elective program to be assigned to an enrollment period, enabling insurance companies to spread out deductible resets. In the second scenario, large employers and employer associations would create staggered deductible reset calendars. In this case, even small and medium sized enterprises could participate as part of larger collective insurance purchasing entities. The collaboration between employers is possible as evidenced by the recent Haven project, which provides the framework, purchasing power, and infrastructure to create proposed programs. Either approach may present another method for employers can advocate for improved wellness and health outcomes.

At the organization level, a variety of tactics may mitigate the contribution of the year-end surge to clinician burnout. In line with Shanafelt et al.'s nine organizational strategies, hospitals must first acknowledge and assess the problem at their institution and then

**Table 1**  
Potential strategies for mitigating the impact of the year end spike in elective surgery.

Stakeholder	Actions to reduce year end surge in elective surgical cases	Expected Impact
<b>Government</b>	<ol style="list-style-type: none"> <li>1. Replace a single national enrollment period with a rolling enrollment date</li> <li>2. Stagger the deductible reset date throughout the year by employer or employee</li> </ol>	<ul style="list-style-type: none"> <li>• Create staggered schedules so deductibles are spread throughout year</li> </ul>
<b>Insurance Companies</b>	<ol style="list-style-type: none"> <li>1. Extend coverage payouts to patients remaining on same plan who were scheduled for elective surgery before December 1st</li> <li>2. Promote rolling enrollment periods to stagger reset dates</li> <li>3. Reduce co-pay for elective procedures in January to incentivize surgeries in January</li> <li>4. Stagger the deductible reset date throughout the year by employer or employee</li> <li>5. Move away from deductibles and design payment models with greater reliance on copayments</li> </ol>	<ul style="list-style-type: none"> <li>• Incentivize patients to schedule elective surgeries at typically lower-volume times of year</li> <li>• Create staggered schedules as deductible resets begin to evenly spread out</li> <li>• Staggered schedules should reduce physician burnout, improving post-surgical outcomes</li> </ul>
<b>Healthcare Organizations</b>	<ol style="list-style-type: none"> <li>1. Acknowledge and assess the impact of the year end surge in elective surgical cases at their institution before developing and implementing targeted interventions</li> <li>2. Open dialogue between the hospital operations leaders, physicians, and staff regarding the year-end surge</li> <li>3. Aid with home related tasks of surgeons and operating room staff during this window<sup>a</sup></li> <li>4. Expand hospital surgery centers' operating hours to book operating rooms with more flexibility</li> </ol>	<ul style="list-style-type: none"> <li>• Alleviate clinician stress and burnout at the end of the year</li> </ul>
<b>Small and Large Business Organizations</b>	<ol style="list-style-type: none"> <li>1. Accept enrollment dates set by insurance organizations where the insurer takes the onus of evenly distributing member deductible resets</li> <li>2. Allow purchasing entities and trade associations to design a staggered enrollment schedule to alleviate elective surgery surges at the end of the year</li> </ol>	<ul style="list-style-type: none"> <li>• Create staggered deductible resets spread throughout year</li> </ul>

<sup>a</sup> Healthcare organizations may provide free meal delivery for staff and families, free-of-cost or reduced cost day care for children, and valet services for car service and wash.

develop and implement targeted interventions to address it [2]. Hospitals may also facilitate work-life integration at year-end by aiding in home related tasks, enabling clinicians to work without adversely impacting personal relationships. By acknowledging the problem, offering clinicians greater flexibility over their schedule, and implementing additional beneficial services, healthcare organizations can improve work-life integration and alleviate year-end clinician burnout.

In conclusion, while it is unlikely that any single intervention will eliminate the challenges of the year end surge, a series of interventions by government, payors, healthcare organizations, and individual clinicians can mitigate this problem.

#### Provenance and peer review

Not commissioned, externally peer reviewed.

#### Ethical approval

This research does not involve patients and thus does not need ethical approval.

#### Sources of funding

This manuscript has no source of funding.

#### Author contribution

Dhairya Shukla, MPH- study design, concept, and writing. Terry Gilliland, MD-study concept and writing. Brooke Gurland, MD-study concept and writing. Sharvil Patel-writing. Tait Shanafelt, MD-study design, concept, and writing.

#### Registration of research studies

Name of the registry: This research does not involve human participants and thus does not need to be registered.

Unique Identifying number or registration ID:

Hyperlink to your specific registration (must be publicly accessible and will be checked):

#### Guarantor

Dhairya Shukla, MPH.

This research does not involve patients and thus does not need patient consent.

#### Declaration of competing interest

One of the authors, Dr. Tait Shanafelt has the following disclosure: Dr Shanafelt is co-inventor of the Well-being Index instruments (Physician Well-being Index, Nurse Well-being Index, Medical Student Well-being Index, the Well-being Index) and the Participatory Management Leadership Index. Mayo Clinic holds the copyright for these instruments and has licensed them for use outside of Mayo Clinic. Mayo Clinic pays Dr. Shanafelt receives a portion of any royalties received. As an expert on the well-being of healthcare providers, Dr. Shanafelt frequently gives grand rounds/key note lecture presentations and provides advising for healthcare organizations. He receives honoraria for some of these activities.

All other authors have no conflicts of interest.

#### References

- [1] Systems approaches to improve patient care by supporting clinician well-being - National Academy of Medicine. Accessed April 3, 2021. <https://nam.edu/systems-approaches-to-improve-patient-care-by-supporting-clinician-well-being/>.
- [2] T.D. Shanafelt, J.H. Noseworthy, Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout, *Mayo Clin. Proc.* 92 (1) (2017) 129–146, <https://doi.org/10.1016/j.mayocp.2016.10.004>.
- [3] D. Shukla, S. Patel, L. Clack, T.B. Smith, M.S. Shuler, Retrospective analysis of trends in surgery volumes between 2016 and 2019 and impact of the insurance deductible: cross-sectional study, *Ann. Med. Surg.* 63 (2021), <https://doi.org/10.1016/j.amsu.2021.02.022>.
- [4] Federal Register, Patient protection and affordable care act; market stabilization. <https://www.federalregister.gov/documents/2017/02/17/2017-03027/patient-protection-and-affordable-care-act-market-stabilization>. (Accessed 14 August 2021).
- [5] Are high deductibles leading to more patient visits at the end of the year? | athenahealth. <https://www.athenahealth.com/knowledge-hub/financial-performance/out-of-pocket-payments>. (Accessed 6 April 2021).
- [6] A.J. Holmgren, D. Cutler, A. Mehrotra, The increasing role of physician practices as bill collectors: destined for failure, *JAMA* 326 (8) (2021) 695–696, <https://doi.org/10.1001/JAMA.2021.12191>.