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Invited Commentary

Mitigating the health shock of traumatic injury

In their manuscript 'Catastrophic Expenditures in Trauma Patients after the Affordable Care Act: Reduced Financial Risk and Racial Disparities,' Liu et al. provide valuable insight into the benefits of expanding access to health insurance.[1] They have chosen to study a population unexpectedly needing health care due to traumatic injury. Due to its sudden nature and prevalence among working age (19-65yo) individuals,[2] traumatic injury can be among the most serious health shocks experienced by young and otherwise healthy Americans. A health shock is an acute (e.g., acute myocardial infarction), subacute (e.g., cancer), or chronic (e.g., diabetes) diagnosis that impacts personal (e.g., ability to work) and familial well-being (e.g., household finances).[3] Not surprisingly, those with existing financial, employment, and housing insecurity can be disproportionately impacted by a health shock. Traumatic injury can be a particularly devastating health shock because injury outcomes can directly impact ability to resume baseline occupational and caregiver roles.[4] Therefore, understanding the role of expanding insurance access on the financial toxicity of traumatic injury is a critical health policy-related research goal. While income is assumed based on zip code residence and out-of-pocket costs are calculated based on total hospital charges and what is presumed would be covered by insurance (if any) in place during the index hospitalization for traumatic injury, these results shed light on a number of key issues regarding the health insurance policy, health equity, and the social contract.

A key finding of this study is that Affordable Care Act (ACA) policies such as non-employer based health insurance options, Medicaid expansion, and marketplace subsidies were associated with increased rates of health insurance coverage among working age Americans. As such, following the implementation of the ACA, fewer injured individuals receiving care at the study site for traumatic injury experienced catastrophic health expenditures (CHE). While the study design precludes estimating those who might have been subject to an individual mandate but chose to remain uninsured, the greatest benefit appears to have been rendered through expanding coverage from familial insurance to age 26 (to some extent) and expanding Medicaid coverage (to a great extent). Importantly, the authors have shown that ACA implementation was associated with markedly decreased odds of catastrophic expenditures and increased financial security among racial minorities. Poverty, low educational attainment, blue-collar occupation, and un/underinsurance – all of higher prevalence among US minority populations – have long been associated with adverse outcomes after traumatic injury and other emergency conditions.[5,6] Therefore, the benefits to vulnerable minority and low income groups (i.e., those newly eligible for health insurance due to Medicaid expansion) seen as a direct result of the ACA are laudable.

However, even among the insured, 9% of study subjects experienced CHE.[1] Across health care outcomes, 9% risk of any adverse outcome in aggregate would be deemed unacceptable. Yet the legislation tested in the present study represents the greatest advance at expanding insurance coverage among working age Americans (19–65) in more than half a century, and one that is under risk of being dismantled under current federal leadership. Our continued national failure to address the health insurance needs of middle class working aged Americans is highlighted by this sobering statistic regarding health shock due to financial liabilities from treatment rendered for trauma care. This is prior to even considering the financial liabilities of inability to return to baseline occupational and caregiver roles due to injury-associated disability.

In the modern economy, many with "steady jobs" are not employed in a manner that results in employer-based health insurance and their salaries render them "too wealthy" for Medicaid even with expansion of eligibility criteria. Yet these same individuals are stalwarts of the US labor force who are unfortunately being left behind by paradigms such as those set forth in the ACA. Our own research from Massachusetts, where healthcare reform (upon which the ACA was modeled) was implemented in 2006, found that those at risk for traumatic injury might be the very same individuals who fail to comply with an individual mandate.[7] From the payer perspective, the goal of expanding insurance coverage to include those expected to be low resource utilizers due to underlying good health is shared risk, thus allowing those who need more costly care to receive it without bankrupting the system. Lacking a mandate, working age individuals without employer provided insurance who presumably have the financial resources to purchase health insurance elsewhere may forego it based on existing confidence in their own health status and/or their personal fiscal decision-making unless they have a strong belief in the social contract.[8] Legislation in the 2018 Tax and Jobs Act effectively dismantled this concept of a social contract fulfilled through a requirement to purchase health insurance by setting the penalty at zero for those deemed financially capable of affording insurance based on tax returns.

Yet the present study also sheds a harsh light on the personal financial risk of remaining uninsured for those who continue to believe that purchasing health insurance should be a personal choice and not one mandated by the government. In this study, 60–65% of subjects were age 19 to 45. Like most Americans, many in this age group discount downstream healthcare related costs and adverse health outcomes related to lack of preventative care (e.g., mammography), absent primary care for treatable diseases (e.g., peptic ulcer) or delaying care for acute symptoms (e.g., diverticulitis) because these diseases typically affect older people. While the potential value of having health care access for

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interventions targeting younger individuals (e.g., pap smears) and access to care for acute diseases such as appendicitis might lure some individuals into considering the need for baseline health insurance even at younger ages, this study's finding that upwards of 90% of traumatic injured patients without insurance experience CHE should be motivating for Americans who wish not to bankrupt themselves or their families. Policymakers and Americans aged 19 to 45 may not be aware that the incidence of traumatic injury, estimated to be ~350/100,000,[2] eclipses that of all the other health risks of younger adults. For example, the estimated incidence of acute appendicitis (the most common surgical disease of younger adults) ranges from 102 to 204 per 100,000 as decade of life increases between ages 19 and 45.[9] Based on the risk of CHE related to traumatic injury alone, working age Americans should be insured to meet the individual goal of being protected against health shock even if these same Americans do not find the social contract and collective goal of assuring healthcare access a compelling reason.

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