The impact of the COVID-19 pandemic on emergency department presentations: an opportunity for renewal?

Amith Shetty[1,2], Jean-Frederic Levesque[1,3]

Health system leaders should integrate alternative models of emergency care that proved useful during the pandemic into care pathways

The coronavirus disease 2019 (COVID-19) pandemic had a significant impact on health care systems around the world. As well as the large number of people infected and the need for hospital care among those with severe infections, the associated fear and public health responses and restrictions, including mandatory mask-wearing and lockdowns, also affected health care use.[1] For example, a large meta-analysis found that the pandemic reduced the numbers of emergency department (ED) presentations across all specialities and disease groups, except in countries with large COVID-19 outbreaks, where ED activity was driven mainly by respiratory illness-related presentations.[2]

In this issue of the *MJA*, Sweeny and colleagues report their retrospective analysis of ED activity in Queensland during 2018–2021. They found substantial reductions in the numbers of presentations during the most stringent COVID-19 restrictions (11 March 2020 – 30 June 2020), except by people with stroke-like conditions.[3] Other Australian studies have reported increased numbers of ED presentations by people with certain conditions, including presentations to New South Wales emergency departments with self-harm or suicidal ideation by young people, particularly adolescent girls,[4] and a relative increase in the number of presentations to a tertiary toxicology service in western Sydney despite an overall reduction in ED presentations.[5]

The findings of Sweeny and colleagues should be interpreted in the context of recent major changes across the health care system. During the pandemic, use of alternative models of care, including telemedicine and virtual care, increased in many specialities.[6,7] The federal government and individual states have established telephone and virtual care modalities for people with COVID-19 or respiratory illnesses, often with phone- or digitally supported escalation services, and some states reported large volumes of call and care activity. The pandemic has presented an opportunity to deliver care using innovative models, including for conditions typically involved in large proportions of ED presentations.

However, the pandemic also resulted in deferred care for people with some conditions,[8] and delayed diagnosis and screening,[9] possibly leading to avoidable deaths. Further, the suspension of elective surgery during the pandemic means that some patients have subsequently waited longer for planned surgery.[10] Taken together with the findings of Sweeny and colleagues, it is clear that the pandemic had a significant impact on many discretionary presentation types (reducing the overuse of emergency services) but possibly also dissuaded people with conditions that require emergency care from seeking it (foregoing necessary care).

The paradoxical effects of the pandemic should prompt health system leaders to use the disruptions it caused to integrate alternative models of emergency care into care pathways, both to maintain the gains associated with changes in health care use — reducing the frequency of discretionary ED presentations for which alternative care options were adequate — as well as to increase the resilience of health systems in the face of disruptions by future waves of COVID-19 or other pandemics. While urgent care centres and related state-specific emergency care avoidance or diversion programs are part of the solution, other models of care should be comprehensively explored.

Competing interests: No relevant disclosures.

Provenance: Commissioned; not externally peer reviewed. ■

1 Sutherland K, Chessman J, Zhao J, et al. Impact of COVID-19 on healthcare activity in NSW, Australia. *Public Health Res Pract* 2020; 30: 3042030.

2 Moynihan R, Sanders S, Michaleff ZA, et al. Impact of COVID-19 pandemic on utilisation of healthcare services: a systematic review. *BMJ Open* 2021; 11: e045343.

3 Sweeny AL, Keijzers GB, Marshall A, et al. Emergency department presentations during the COVID-19 pandemic in Queensland (to June 2021): interrupted time series analysis. *Med J Aust* 2023; 218: 120-125.

4 Sara G, Wu J, Uesi J, et al. Growth in emergency department self-harm or suicidal ideation presentations in young people: comparing trends before and since the COVID-19 first wave in New South Wales, Australia. *Aust N Z J Psychiatry* 2022; doi: https://doi.org/10.1177/00048674221082518 [online ahead of print].

[1] NSW Health, Sydney, NSW. [2] Westmead Clinical School, the University of Sydney, Sydney, NSW. [3] Centre for Primary Health Care and Equity, University of New South Wales, Sydney, NSW.
amith.shetty@health.nsw.gov.au • doi: 10.5694/mja2.51828 ■ See Research (Sweeny)

5 Ng RW, Emmerig D, Salter MD, et al. Toxicology presentations to a tertiary unit in New South Wales during the COVID-19 pandemic first wave: a retrospective comparison study. *Emerg Med Australas* 2022; doi: https://doi.org/10.1111/1742-6723.14070 [online ahead of print].

6 Stamenova V, Chu C, Pang A, et al. Virtual care use during the COVID-19 pandemic and its impact on healthcare utilization in patients with chronic disease: a population-based repeated cross-sectional study. *PLoS One* 2022; 17: e0267218.

7 Weiner JP, Bandeian S, Hatef E, et al. In-person and telehealth ambulatory contacts and costs in a large US insured cohort before and during the COVID-19 pandemic. *JAMA Netw Open* 2021; 4: e212618.

8 Baum A, Schwartz MD. Admissions to Veterans Affairs hospitals for emergency conditions during the COVID-19 pandemic. *JAMA* 2020; 324: 96-99.

9 Maringe C, Spicer J, Morris M, et al. The impact of the COVID-19 pandemic on cancer deaths due to delays in diagnosis in England, UK: a national, population-based, modelling study. *Lancet Oncol* 2020; 21: 1023-1034.

10 Australia Institute of Health and Welfare. Australia's health 2022: data insights (Cat. no. AUS 240; Australia's health series number 18). 7 July 2022. https://www.aihw.gov.au/reports/australias-health/australias-health-2022-data-insights/summary (viewed Nov 2022). ■