Trauma, COVID-19 and healthcare investment

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Just over two years have passed since the first cases of COVID-19 were recognised in New Zealand. In that time, there have been a range of restrictions and lockdowns during which individuals' ability to travel and engage in a range of work-related and personal activities have been severely constrained.

Trauma is associated with physical activity and the severity of injury generally correlates with the forces involved and the degree of risk. Road traffic crashes are a well-known cause of death and serious injury and falls, sporting activities and assault are among the main contributors to the national injury statistics.

As expected, during Level 4 lockdown in 2020, there were such significant constraints on personal activity that trauma incidence actually did drop,[1, 2,3,4] but in in the latter half of 2020 and the first half of 2021, despite ongoing restrictions of various sorts, trauma incidence remained high. The report from Teo et al[5] in this issue of the journal has flagged that the second Level 4 lockdown in Auckland in August–September 2021 did not suppress trauma presentations as the similar level of lockdown did in 2020.

In the recently released annual report of the National Trauma Network (NTN), the incidence of major trauma (where the severity is such that there is some risk of death) was the highest recorded (51/100,000/year) in the period since 2015 when the National Trauma Registry has been operating. [6] This increase seems to have particularly focussed on the older cohort (65+ ages), where there were incidence drops in 2019–2020 but significant increases beyond the pre-COVID-19 baseline in 2020–2021. The report also highlights the known inequitable burden of trauma in Māori and in those living in rural areas. Serious traumatic brain injury is the most common cause of death, and is associated with significant long-term morbidity and reduction in quality of life for survivors.

While the natural tendency is to focus on any new threat to healthcare, particularly where there is uncertainty with regard to the outcome, much more is now known about COVID-19, and the most recent variants seem to carry only modest threats to life. Although "long-COVID" remains an unknown quantity at this stage both the paper by Teo et al in this issue and the annual report of the NTN attest to the fact that major trauma is largely immune to COVID-19, and occurs at a similar incidence despite standard COVID-19 restrictions. Only full Level 4 lockdown seems to reduce major trauma presentations, and that effect might have been less in 2021 than in the initial Level 4 lockdown in 2020.

Despite the efforts being presently put into the fight against COVID-19, we must not lose sight of the fact that many other diseases remain prevalent in the community. In particular, physical injury may have even been stimulated by the lockdown periods of activity restriction, and overall rates seem to be increasing. Our healthcare system must retain its capability to prevent and treat all types of illness and injury. The timely investment now being put into our health system must be used in a rounded way so that not only will COVID and like infections be able to be managed in the short and long term, but age-old endemic afflictions such as trauma will also be able to be managed and the systems for treating them improved.

COMPETING INTERESTS
Nil.

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REFERENCES

1. Christey, G., Amey, J., Campbell, A., Smith, A. Variation in volumes and characteristics of trauma patients admitted to a level one trauma centre during national level 4 lockdown for COVID-19 in New Zealand NZ Med J 2020; 133(1513): pp. 81-88.
2. Hamill, J.K., Sawyer, M.C. Reduction of childhood trauma during the COVID-19 Level 4 lockdown in New Zealand. ANZ Journal of Surgery 2020; 90(7-8): 1242-1243.
3. Fan, D., Scowcroft, H., McCombie, A., et al., A comparison of major trauma admissions to Christchurch Hospital during and after COVID-19 lockdown in New Zealand. NZ Med J 2021; 134(1540): 46-55.
4. McGuinness, M.J., Harmston, C., The Northern Regional Trauma Network. Association between COVID-19 public health interventions and major trauma presentation in the northern region of New Zealand. ANZ Journal of Surgery 2021;91(4): 633-638.
5. Teo K., Civil, I., Balasubramanian, S. Lockdown Level 4 V2.0: different trauma patterns in Auckland in 2021? in New Zealand N Z MJ 2022;135(1554): pp. 73-79.
6. NZ National Trauma Registry and National Trauma Network Annual Report 2020-2021.https://www.majortrauma.nz/assets/Annual-reports/NZMT-Annual-Report-2020-2021.pdf Accessed April 2nd 2022.