COVID-19 and Road traffic crashes in Wales – A public health opinion

Summary

There was a decrease of around 47% in health service use for treatment of road traffic crash (RTC) injuries between January and May 2020 compared with the same period in 2019. Travel for all reasons decreased following the lockdown introduced on the 23 March 2020.

Road traffic crashes are a consequence of transport and travel. At a time when transport and travel behaviours changed there were substantial reductions in RTCs. Policies that aim to maintain changes in these behaviours, such as encouraging active travel, and facilitate its integration with safe and sustainable public transport provision, when appropriate, reducing car use and encouraging home working, may contribute to continued reductions in crashes.

This paper complements *COVID and air quality – a public health opinion*, prepared by the same team.

Data

Health service treated road traffic crashes during lockdown

In the first five months of 2019, attendances at emergency departments (EDs) in Wales following an RTC, were around 1000 per month (figure 1a). Partial lockdown began in Wales on the 16th March 2020, with full lockdown on 23rd March. ED attendances for RTC injuries were around 50% lower in March 2020 than March 2019.

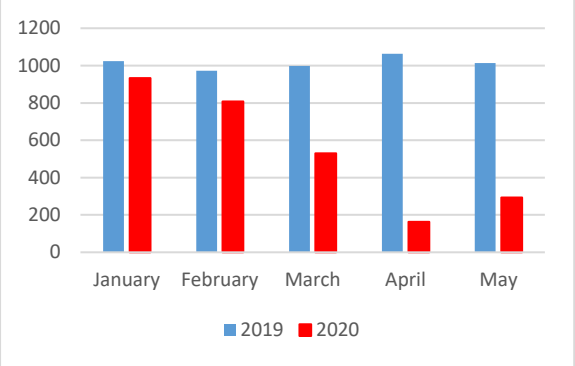

Figure 1a:- ED attendances following RTCs; 2019 v 2020

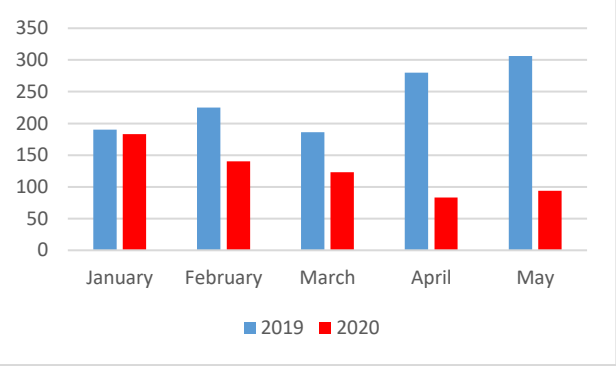

Figure 1b:- IP admissions following RTCs; 2019 v 2020

In 2019, in-patient (IP) admissions following RTCs rose from January to May (figure 1b), but in 2020, the trend was downwards across the same period.

Changes in travel behaviours

Quantifying the effects of lockdown on travel is important to understanding changes in RTCs. Based on averages across all 22 local authorities in Wales, pre-lockdown week saw more travel for grocery and pharmacy, but less for transit, workplace and retail and recreation (figure 2). During lockdown all travel decreased, but as it eased, travel increased. However, these data show only travel, they do not show how people travelled and whether this changed between pre- and post-lockdown.

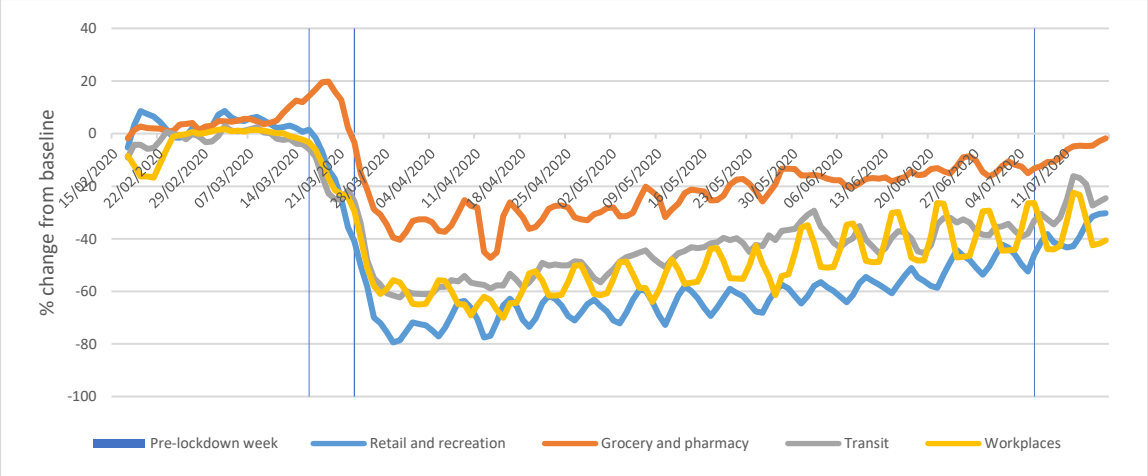

Figure 2:- Trends in travel behaviours across Wales – three day rolling averages[1]

Commentary

Were there fewer road traffic crashes due to the lockdown?

These are health service use and travel data, rather than RTC records. Further, more detailed, health service use analysis will be needed, possibly including ambulance and minor injuries unit data to establish if treatment was sought elsewhere, as will police RTC data analysis. The police RTC data are important to establishing whether incidence of RTCs changed during lockdown. The trends shown here may be a result of fewer crashes, but other possibilities need to be considered.

When people are injured, many factors influence their decision to seek treatment. Once community spread of COVID19 began, use of NHS services, even for life threatening conditions, dropped considerably. This could mean that people suffering slight injuries in an RTC chose not to seek treatment.

These data give no indicator of severity. Throughout lockdown, there were reports of vehicles that were moving were doing so at higher speeds than normal[2]. This may have increased the risk of crashing and increased the severity of injury in any crash that did occur. Therefore, although there were fewer crashes, those that did occur may have led to more serious injuries.

In terms of IP admissions, rising admissions in 2019 may not reflect increases in crashes, but a change in threshold for admission, possibly as winter pressures reduce. Similarly, fewer admissions may be due to fewer crashes, or to changing admission thresholds.

What does this mean for public health and public health policy?

Road traffic crashes are a significant cause of harm to health and burden on health services. They also place significant indirect burdens on health and the economy. If these data are a

[1] https://www.google.com/covid19/mobility/
[2] https://www.bbc.co.uk/news/uk-england-53215121
https://www.theguardian.com/uk-news/2020/jun/02/rac-hits-out-at-truly-shocking-lockdown-speeding-offences
https://www.walesonline.co.uk/news/wales-news/coronavirus-lockdown-speeding-police-roads-18427901

true reflection of reductions in RTCs as a result of lockdown, then the benefits are potentially very important.

In addition, COVID-19 has, and will continue to, placed the NHS under significant pressure for an indefinite period of time. Even when COVID-19 incidence and prevalence decreases, the NHS will need to recover and tackle the 'backlog' that has accumulated. While this happens, it is important to reduce any avoidable burden on the NHS and RTCs are a good example of this. Identifying ways to maintain continued reductions in RTCs is therefore essential in the short, medium and long term.

Travel and transport are the contributors to RTCs. Anecdotal evidence suggests that during lockdown many people were travelling locally on foot and by bike, with far less car travel. It also appears that there was less travel in general (figure 2), reducing potential exposure substantially. This is consistent with assessments of changes in air quality during the same period carried out by this team.

Together, therefore, these data suggest that there have been significant changes in travel need and mode that may have contributed to a reduction in RTCs. Policies that embed action to encourage and support active travel, and facilitate its integration with safe and sustainable public transport provision, along with flexible home working arrangements where possible, could make a positive difference to RTCs, public health and wider environmental health in Wales.