



**1522
PEDESTRIANS
ARE HIT ON
NSW ROADS
EACH YEAR**



Intoxicated pedestrians

John CROZIER Vascular & Trauma Surgeon

Liverpool Hospital RACS 13NOV19







Unleaded

E10

Ethanol is



WITH 10%
ETHANOL
(GASOHOL)





Set Your Store ▼

Find your local BWS

Find something you'll love



Stock up
before you
rock up
this Easter



SHOP NOW ▶



Pick Up

Shop online, collect in-store for free



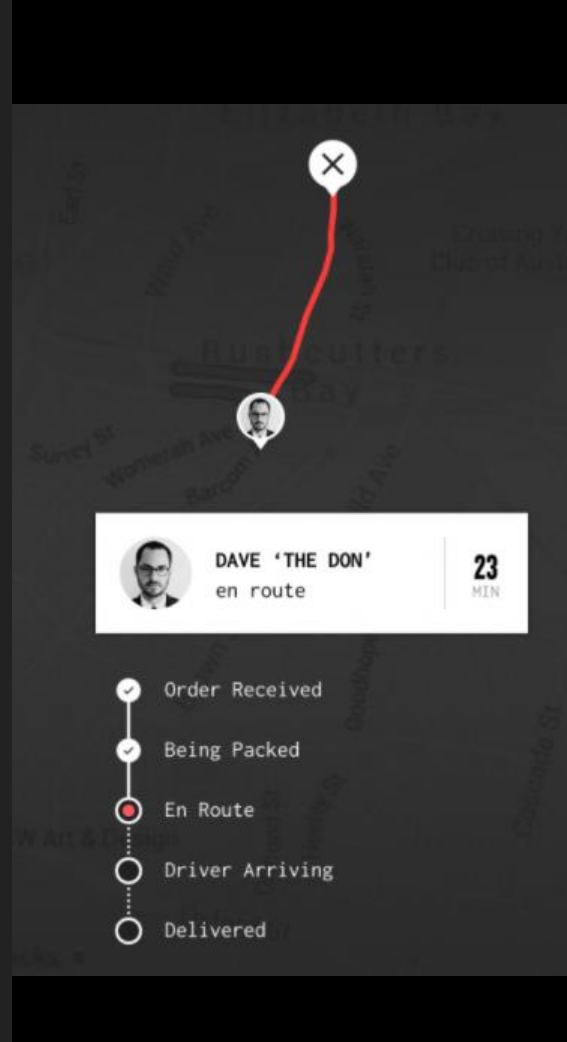
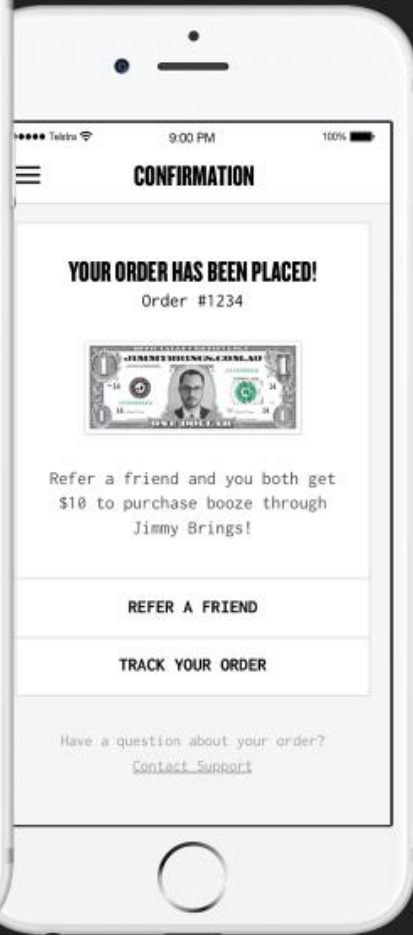
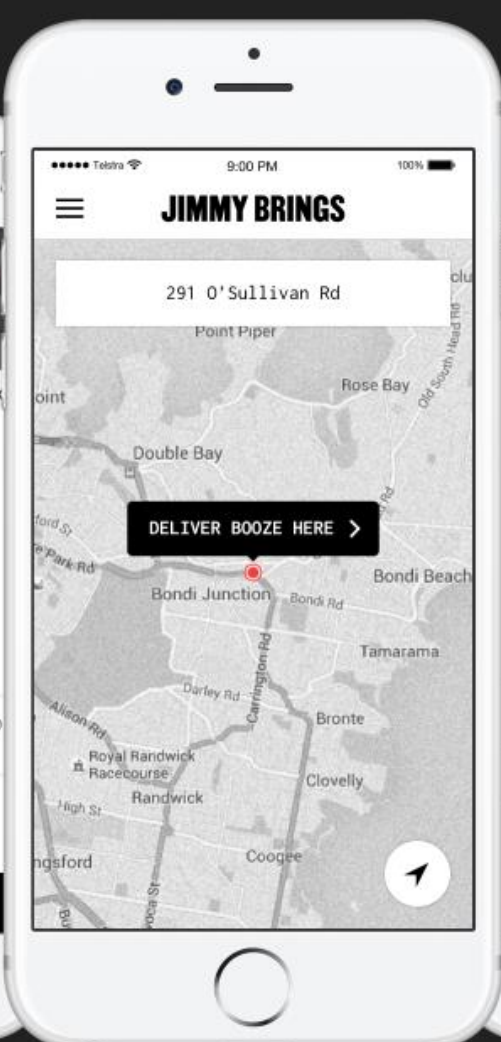
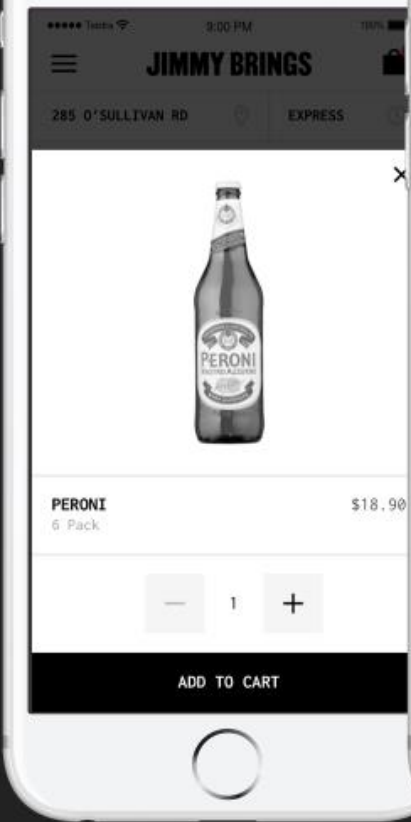
Express Delivery

Drinks delivered when you need it



Pick A Date & Time

Delivery at a time that suits you



Scope

- Liverpool Hospital pedestrian trauma
- Australian inebriated pedestrian data
- inebriated pedestrian fatalities
- recommendations

Liverpool Hospital Pedestrian Trauma

| Year | Total | Deaths | Male | Female |
|----------------|--------------|---------------|-------------|---------------|
| 2013 | 106 | 3 | 46 | 60 |
| 2014 | 88 | 2 | 44 | 44 |
| 2015 | 88 | 8 | 30 | 58 |
| 2016 | 85 | 6 | 36 | 49 |
| 2017 | 114 | 6 | 46 | 68 |
| 2018 | 96 | 7 | 37 | 59 |
| 2019 H1 | 50 | 1 | 21 | 29 |

Patient age group

| Age group | Number |
|--------------|------------|
| <9 | 33 |
| 10 – 19 | 96 |
| 20 – 29 | 75 |
| 30 – 39 | 58 |
| 40 – 49 | 49 |
| 50 – 59 | 74 |
| 60 – 69 | 86 |
| > 70 | 156 |
| <i>Total</i> | <i>627</i> |

Arrival in ED by day of week

| Day | Number |
|--------------|------------|
| Monday | 99 |
| Tuesday | 106 |
| Wednesday | 90 |
| Thursday | 103 |
| Friday | 87 |
| Saturday | 79 |
| Sunday | 63 |
| Total | 627 |

Arrival in ED by hour

| Hour | Number |
|---------------|------------|
| 00:00 – 07:59 | 69 |
| 08:00 – 15:59 | 267 |
| 16:00 – 23:59 | 291 |
| <i>Total</i> | <i>627</i> |

Alcohol suspected

| Year | Total | Alcohol suspected | |
|---------|-------|-------------------|--|
| 2013 | 106 | | |
| 2014 | 88 | | |
| 2015 | 88 | | |
| 2016 | 85 | | |
| 2017 | 114 | | |
| 2018 | 96 | | |
| 2019 H1 | 50 | | |

Alcohol suspected

| Year | Total | Alcohol suspected | |
|---------|-------|-------------------|--|
| 2013 | 106 | 6 | |
| 2014 | 88 | 3 | |
| 2015 | 88 | 4 | |
| 2016 | 85 | 1 | |
| 2017 | 114 | 6 | |
| 2018 | 96 | 3 | |
| 2019 H1 | 50 | 1 | |

Alcohol suspected

| Year | Total | Alcohol suspected | |
|---------|-------|-------------------|---|
| 2013 | 106 | 6 | Note: Blood alcohol data is not accurate it is captured only for Major patients that had ISS>12 and only if available |
| 2014 | 88 | 3 | |
| 2015 | 88 | 4 | |
| 2016 | 85 | 1 | |
| 2017 | 114 | 6 | |
| 2018 | 96 | 3 | |
| 2019 H1 | 50 | 1 | |

TRAUMA

Alcohol intoxication in non-motorised road trauma

Biswadev MITRA,^{1,2,3} Kate E CHARTERS,^{1,2} John C SPENCER,¹ Mark C FITZGERALD^{1,2,3} and Peter A CAMERON^{1,2,3}

¹Emergency and Trauma Centre, The Alfred Hospital, Melbourne, Victoria, Australia, ²Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Victoria, Australia, and ³National Trauma Research Institute, The Alfred Hospital, Melbourne, Victoria, Australia

| Mode of transport | Intoxicated BAL >0.05 g/100ml | Not intoxicated | P |
|-------------------|-------------------------------|-----------------|------|
| | (n=211) | (n=1112) | |
| Pedestrian | 161 (76.3%) | 490 (44.1%) | <.01 |
| Pedal cyclist | 47 (22.3%) | 597 (53.7%) | <.01 |
| Scooter | 3 (1.4%) | 14 (1.2%) | |
| Skateboard | 0 | 6 (0.5%) | |
| Age | 33.9 (12.7%) | 46.6 (19.2%) | |
| Male | 179 (84.8%) | 751 (67.5%) | <.01 |
| Weekend | 69 (32.7%) | 326 (29.3%) | |
| After hrs | 185 (87.7%) | 338 (30.4%) | <.01 |

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Key findings

- alcohol intoxication common among Victorian non-motorised road users
- 1 in 4 pedestrians and
- 1 in 10 bicyclists with serious injuries presenting to a major trauma centre were intoxicated
- trauma burden from alcohol intoxication likely to be grossly under-estimated

Ethanol in pedestrian fatalities from traffic crashes

- study population: 313 fatalities - 208 men (66.45%)
- age 3 - 91 years, average age 68.5 (sd12.7) years
- most often, struck by motor vehicle - aged 45 - 64 (36.10%)
- alcohol in 162 of the victims (51.76%)
- majority -276 pedestrians struck -multiple injuries (88.18%)
- death at crash site - 211(67.41%)
- mechanism involved was car - 212 (67.73%)

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Alcohol outlets, pedestrian injury risk

- **Background:** Alcohol outlet density has been associated with increased pedestrian injury risk. It is unclear whether this is because alcohol outlets are located in dense retail areas with heavy pedestrian traffic or whether alcohol outlets contribute a unique neighborhood risk.
- aimed to compare the pedestrian injury rate around alcohol outlets to the rate around other, similar retail outlets that do not sell alcohol.
- **Methods:** A spatial analysis was conducted on census block groups in Baltimore City. Data included pedestrian injury EMS records from January 1, 2014, to April 15, 2015 (n=848); locations of alcohol outlets licensed for off-premise (n=726) and on-premise consumption (n=531); and corner (n=398) and convenience stores (n=192) that do not sell alcohol. Negative binomial regression was used to determine the relationship between retail outlet count and pedestrian injuries, controlling for key confounding variables. Spatial autocorrelation was also assessed and variable selection adjusted accordingly.
- **Results:** Each additional off-premise alcohol outlet was associated with a 12.3% increase in the rate of neighborhood pedestrian injury when controlling for convenience and corner stores and other confounders (IRR=1.123, 95%CI=(1.065, 1.184), $p < 0.001$). The attributable risk was 4.9% (95% CI=(0.3%,8.9%)) or 41 additional injuries. On-premise alcohol outlets were not significant predictors of neighborhood pedestrian injury rate in multivariable models (IRR=0.972, 95%CI=(0.940, 1.004), $p = 0.194$).
- **Conclusion:** Off-premise alcohol outlets are associated with pedestrian injury rate, even when controlling for other types of retail outlets. Findings reinforce the importance of alcohol outlets in understanding neighborhood pedestrian injury risk and may provide evidence for informing policy on liquor store licensing, zoning, and enforcement

Alcohol Clin Exp Res. 2018 October ; 42(10): 1979-1987. doi:10.1111/acer.13844.

Alcohol Outlets, Neighborhood Retail Environments, and Pedestrian Injury Risk

Elizabeth D. Nesoff, PhD, MPH^{1,2}, Adam J. Milam, MD, PhD, MHS², Charles C. Branas, PhD¹,
Silvia S. Martins, MD, PhD¹, Amy R. Knowlton, ScD³, and Debra M. Furr-Holden, PhD¹
¹Columbia University Mailman School of Public Health, Department of Epidemiology, 722 W168th
St, 5th floor, New York, NY 10032, USA

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- **Background:** Alcohol outlet density has been associated with increased pedestrian injury risk. It is unclear whether this is because alcohol outlets are located in dense retail areas with heavy pedestrian traffic or whether alcohol outlets contribute a unique neighborhood risk.
- aimed to compare the pedestrian injury rate around alcohol outlets to the rate around other, similar retail outlets that do not sell alcohol
- **Me** each additional off-premise outlet - **12.3% increase in neighbourhood pedestrian injury**
rec
pre
bin
for
- **Re:** 1.10 (1.07, 1.13), p=0.002). The attributable risk was 10% (95% CI: (8.0%, 12.0%)) or 12 additional injuries. Off-premise alcohol outlets were not significant predictors of neighborhood pedestrian injury rate in multivariable models (IRR=0.972, 95%CI=(0.940, 1.004), p=0.194).
- **Conclusion:** Off-premise alcohol outlets are associated with pedestrian injury rate, even when controlling for other types of retail outlets. Findings reinforce the importance of alcohol outlets in understanding neighborhood pedestrian injury risk and may provide evidence for informing policy on liquor store licensing, zoning, and enforcement

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Key pedestrian trauma messages

- **mechanism - pedestrian vs**
- **geospatial location of injury**
- **alcohol frequently not considered**

Key pedestrian trauma messages

- **alcohol frequently not considered**
 - has alcohol been consumed in the 6 hr prior
 - how much ?
 - when did you start ? stop ?
 - where did you last consume?
- **blood alcohol**

**NEVER LET A
MATE WALK
HOME DRUNK**



**PEDESTRIAN COUNCIL
OF AUSTRALIA**