







# If we want to save lives what should we do?

**Professor Frank P McKenna** 













#### Two Assumptions

- Our aim is to save lives
- Our interventions should be demonstrably effective

# Three approaches

- Driver training
- Driver testing
- Driver licensing

#### Driver training – no effect

- Brown, et al (1987);
- Mayew et al (1998);
- Vernick et al., (1999)
- Christie, (2001);
- Mayew & Simpson, (2002);
- Ker et al., (2005);
- Christie, (2007);
- Helman et al (2010)
- Kinnear et al (2013)

Speculations on why Driver training does not have safety benefits

- Not enough emphasis on safety skill set
- Overconfidence
- Skill can be used for different purposes





# Relationship between confidence and violations







# Theory tests (excluding Hazard Perception)

No relationship with accident involvement (Elvic et al 2008)

### On road tests

- Limited crash relationship Baughan et al (2005)
- Those who fail  $\geq$  4 tests more crashes Boufous et al (2011)
- New test no crash relationship Gebers (1998)
- Different tests not associated with crash involvement Haire et al (2011)
- Abolishing renewal test had no effect (Christensen et al 1974)

# Speculations on driver testing results

- Difficult to collect evidence
- Vehicle control necessary but not sufficient
- Maximal performance test rather than actual performance

# What does hazard perception offer?

- Hazard perception can be measured reliably (McKenna & Crick, 1994)
- Hazard perception can be trained (McKenna & Crick, 1997)
- Hazard perception is correlated with accidents (Horswill et al 2015)
- Alternative definition of good driving

# Driver licensing

- Increased supervised practice works Gregersen et (2000)
- Limit night time driving works
- Passenger restrictions works

#### New drivers

- Safe when supervised
- Unsafe when unsupervised

We need to prepare and constrain new drivers for unsupervised driving

#### Prepare

Increased supervised driving

#### Increased constraint through

- Legal constraint (night time and passenger restrictions)
- Parental constraint (parent teen agreements)
- Telematics cost for risky driving

### Overall

- Extensive resources in areas with no clear evidence (education, training, testing)
- Limited resources in areas with clear evidence (supervised driving, night time restrictions, passenger restrictions)

# If you want to save lives

• What are you going to do?