Young driver crashes – the case for Graduated Driver Licensing

Dr Sarah J Jones
Outline

• Why we need to act?
• What is Graduated Driver Licensing
• Evidence of effectiveness
New Drivers

• All new drivers are at high risk of crashing
  – Inexperienced
Young driver crashes – the case for Graduated Driver Licensing
New young drivers

- New young drivers in the UK
  - 1 in 5 crash within 6 months of licence
  - 4 people killed or seriously injured each day in crashes involving young drivers
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Mindell et al, 2012
Single vehicle crash rates

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All
Males – Blue
Females - Red

KSI
Males – Blue
Females - Red
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Not just about numbers...

- People, their families and friends
Young driver risk factors

- Age
  - Exuberance, risk taking, peer pressure, sensation and thrill seeking
- Inexperience
  - Psychomotor skills, hazard perception, judgment, decision making
- Joy riders
- “the irresponsible minority”

Young driver crashes – the case for Graduated Driver Licensing
What can we do about it?

**Education**
- Pre-driver school based education
- Driver training
- Post-licence driver training

**Legislation / Enforcement**
- Raise licence age
- Graduated Driver Licensing (GDL)

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WHAT IS GRADUATED DRIVER LICENSING?

Young driver crashes – the case for Graduated Driver Licensing
What is GDL?

- Opportunity to gain experience under conditions of reduced risk
- ‘Intermediate phase’
  - learner to full licence
- ‘Permission’ granted to drive unsupervised
  - Permission not given for night time driving, carrying passengers, drinking any alcohol
DOES IT WORK?

Young driver crashes – the case for Graduated Driver Licensing
<table>
<thead>
<tr>
<th>Crash type</th>
<th>Popn</th>
<th>Denominator</th>
<th>Time period</th>
<th>Effect (adjusted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All crashes</td>
<td>All teenage drivers</td>
<td>Population</td>
<td>1 year post implementation</td>
<td>4 – 7% reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Licensed drivers</td>
<td></td>
<td>11 – 19% reduction</td>
</tr>
<tr>
<td>Injury crashes</td>
<td>All teenage drivers</td>
<td>Population</td>
<td>1 year post implementation</td>
<td>4 – 23% reduction</td>
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<tr>
<td></td>
<td></td>
<td>Licensed drivers</td>
<td></td>
<td>17% reduction</td>
</tr>
<tr>
<td>Hospitalisations</td>
<td>All teenage drivers</td>
<td>Population</td>
<td>1 year post implementation</td>
<td>19 – 20% reduction</td>
</tr>
<tr>
<td>Fatal crashes</td>
<td>All teenage drivers</td>
<td>Population</td>
<td>1 year post implementation</td>
<td>15 – 57% reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Licensed drivers</td>
<td></td>
<td>6 – 19% reduction</td>
</tr>
<tr>
<td>Night time crashes</td>
<td>All teenage drivers</td>
<td>Licensed drivers</td>
<td>1 year post implementation</td>
<td>3 – 48% reduction</td>
</tr>
<tr>
<td>Alcohol related</td>
<td>All teenage drivers</td>
<td>Licensed drivers</td>
<td>1 year post implementation</td>
<td>19% reduction</td>
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<tr>
<td>crashes</td>
<td></td>
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Does it work?

“GDL is effective in reducing crash rates among young drivers, although the magnitude of the effect varies. The conclusions are supported by consistent findings, temporal relationship, and plausibility of the association. Stronger GDL programmes (i.e. more restrictions or higher quality based on IIHS classification) appear to result in greater fatality reduction” (Russell et al., 2011).

Young driver crashes – the case for Graduated Driver Licensing
“The evidence that Graduated Licensing improves safety is compelling. Driver licensing in GB should be based on a strong Graduated System”

Kinnear et al, 2013
• Revisited analysis of Jones et al (2012)
• “The updated analysis of STATS19 data supports the original findings of Jones et al (2012) while using more recent data and addressing some limitations....The analysis supports that the implementation of GDL in GB is likely to lead to a substantial reduction in collisions, casualties and fatalities”.
Secondary outcomes

- Parents feel more ‘empowered’
- Teens feel less ‘pressured’ into driving in situations that they are not comfortable with
- Cochrane review – only positive effects
POTENTIAL BENEFITS

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# Casualty savings

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion of all regional casualties that involved a young car driver (17–19 years old)</th>
<th>Expected reduction in all annual casualties from collisions involving a 17 to 19 year old car driver</th>
<th>Expected reduction in annual KSI casualties from collisions involving a 17 to 19 year old car driver</th>
<th>Expected value of benefits (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wales</td>
<td>16.2%</td>
<td>296</td>
<td>27</td>
<td>12.8</td>
</tr>
<tr>
<td>Scotland</td>
<td>12.5%</td>
<td>299</td>
<td>45</td>
<td>18.3</td>
</tr>
<tr>
<td>England</td>
<td>11.6%</td>
<td>3883</td>
<td>361</td>
<td>169.1</td>
</tr>
<tr>
<td>GB</td>
<td>11.9%</td>
<td>4478</td>
<td>433</td>
<td>200.1</td>
</tr>
</tbody>
</table>

From Kinnear et al, 2014
Crash rates per licensed driver

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FAQS AND OTHER COMMENTS

Young driver crashes – the case for Graduated Driver Licensing
Just because it works in other places...

- There is no good reason why it would not work in the UK.
- But, USA, Aus, NZ and Canada are all different – and GDL still works.
- Would the UK really be the first place where that trend would be countered?
- Crashes occur in the UK in circumstances covered by GDL.

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The police are too busy to enforce GDL

- Head of ACPO Roads Policing, Suzette Davenport, has expressed the need for GDL to be implemented.
- CC Davenport has stated that the police will find ways to address enforcement and the driver identification issues that go with this.
- But, parents are the primary enforcers, are strongly supportive of GDL and do not feel that the restrictions are inconvenient.
Most teens involved in fatal crashes do not have prior violations or crashes on their records.

Many “model” teens are killed in car crashes.

Disproportionately high crash rate amongst young drivers...

GDL would penalise the majority of law abiding teens.
GDL will hinder education or employment opportunities

- NZ study
  - 8% of those subject to GDL said that the nighttime curfew hindered work
  - 1% said the passenger restriction hindered work

- In the UK
  - 25% of 17-19 year olds hold a driving licence
  - So 75% are able to manage work and education without a driving licence...
Restrictions are unfair

- So are road traffic crashes, casualties and fatalities
- Permissions
- Driving as a “privilege”
Restrictions will not be complied with

- “both parents and teens are generally much more accepting of the kinds of restrictions that have long been recommended for high-quality GDL systems than is generally assumed”
- “by large majorities, the public wants enforced restrictions placed on young drivers before and initially after they receive their licences”
- NZ study
  - 26% supported all three GDL conditions (night time, passengers and alcohol),
  - 78% would not breach the licensing conditions.
  - 30% believed the passenger restriction was convenient; it removed their responsibility for driving others.
More will drive without a licence

- Frith and Perkins (1992) found that after introducing GDL the proportion of unlicensed drivers was almost unchanged
- Here, cost of insurance a greater risk for driving illegally than implementing GDL.
Crash risk up when restrictions lifted

- Not clear what will happen
- Driving experience will be greater
- Ageing
YD need a ‘trade off’ of lower learner age

• Increasing the learner age from 16 to 16.5
  – reduced the fatal crash rate in one study by 7%
  – increase to 17 brought about a 13% decrease
Rural young people will be unfairly penalised

- The burden of young driver crashes is greater in rural areas
  - Road network
  - Long distances to medical care
- Research comparing urban and rural attitudes to GDL
  - Rural parents support GDL and at equivalent levels to urban areas
% of crashes that occur in rural areas

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It will be unpopular with the voting public

- RAC Foundation (2014)
  - 61% support for GDL
  - 41% of U24s support GDL, 32% oppose
  - 66% support passenger restrictions, 61% support night time driving restrictions
  - 41% of young people oppose passenger restriction, 40% oppose night time driving restriction
  - 34% of parents strongly support GDL

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CURRENT POLICY SITUATION
UK Government power

- GDL legislation reserved to Westminster
- January 2013 UK Gov announced forthcoming Green Paper on Young Drivers – To be published by summer 2013
- Asked TRL to produce evidence review – Kinnear et al (2013)
UK Government power (2)

- Green Paper repeatedly delayed
- January 2014 – Green Paper postponed indefinitely
- Jones et al (2014) *BMJ* called on UK Gov to take urgent action
- Focus on telematics
- Jones et al (2015) *BMJ* called on next UK Gov to take urgent action
- Jan 2015 “coalition” – called on manifesto writers to commit to action
  - Included Brake, lead by RoSPA
# Price of delay?

- In 15 months Jan 2013 to end March 2015

<table>
<thead>
<tr>
<th></th>
<th>GB</th>
<th>England</th>
<th>Scotland</th>
<th>Wales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casualties associated with YD crashes</td>
<td>10075</td>
<td>8737</td>
<td>673</td>
<td>666</td>
</tr>
<tr>
<td>KSI</td>
<td>974</td>
<td>812</td>
<td>101</td>
<td>61</td>
</tr>
<tr>
<td>Cost</td>
<td>£450M</td>
<td>£380M</td>
<td>£41M</td>
<td>£29M</td>
</tr>
</tbody>
</table>

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Northern Ireland

- Have power to make legislation on driving licences
- Legislation before NI Executive
- Consultation process closed 29/8/14
- Finalised Spring 2015
NI Proposals (2)

• Repeal legislation around 45mph speed limit and R plate
• Reduce L age to 16.5 with 1 yr min L period and logbook
  – Remove age reduction from proposed legislation
  – Reduce L period to 6 months, use logbooks
• Reduce BAC to 50mm for all drivers, 20mm for newly qualified drivers
• Max 1 14-20 yr old passenger unless supervised, exemptions apply
Some other thoughts….

• Tobacco was identified as a carcinogen in the 1950s
• Smoking ban in 2007

• New Zealand GDL in 1987
• New York has had a night time driving curfew for over 40 years
“Change is the law of life. And those who look only to the past or present are certain to miss the future”

*John F Kennedy*

“All the forces in the world are not so powerful as an idea whose time has come”

*Victor Hugo*
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