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Road Safety Updates from Department for Transport

Joining the Dots 2018

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Outline

- ▶ CRASH (**C**ollision **R**ecording **A**nd **S**Haring) system
- ▶ Initial findings on the introduction of injury based severity reporting.
- ▶ Changing the law to allow new ways to report road accidents to the police
- ▶ STATS19 review
- ▶ Questions



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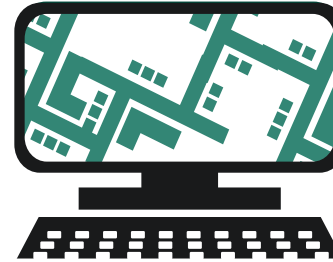
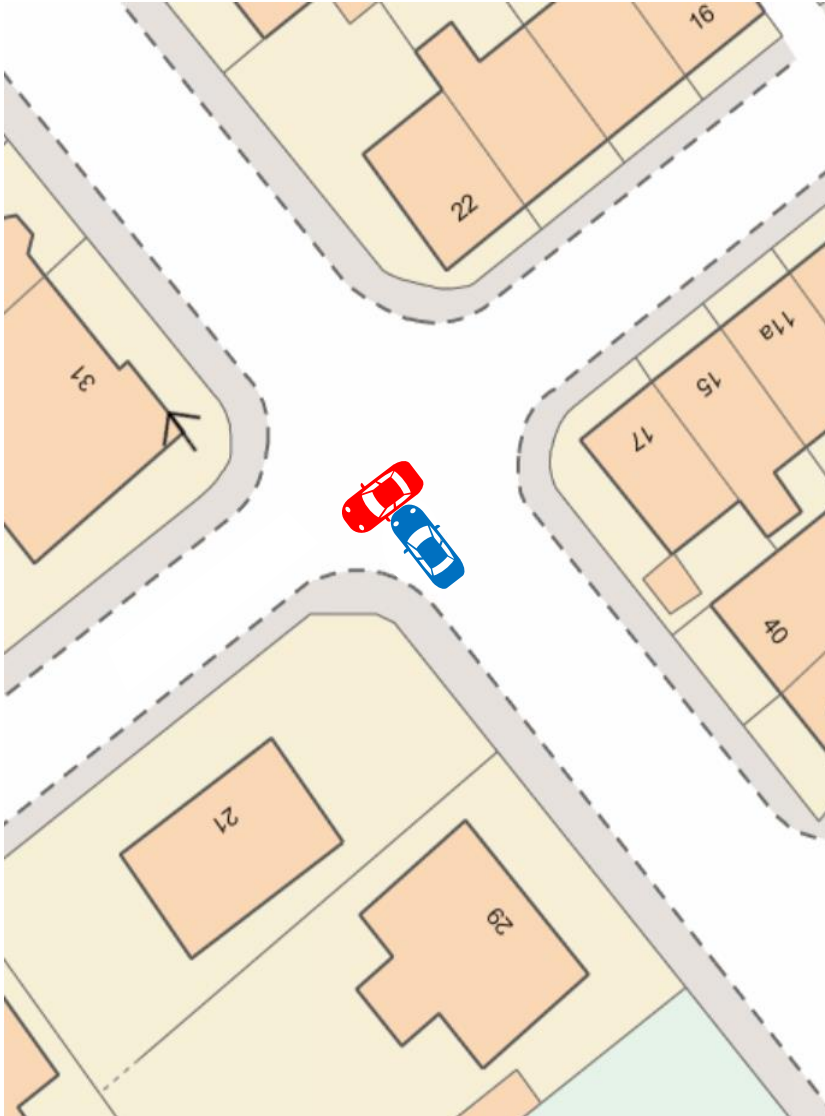
CRASH

Collision Recording And SHaring



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CRASH

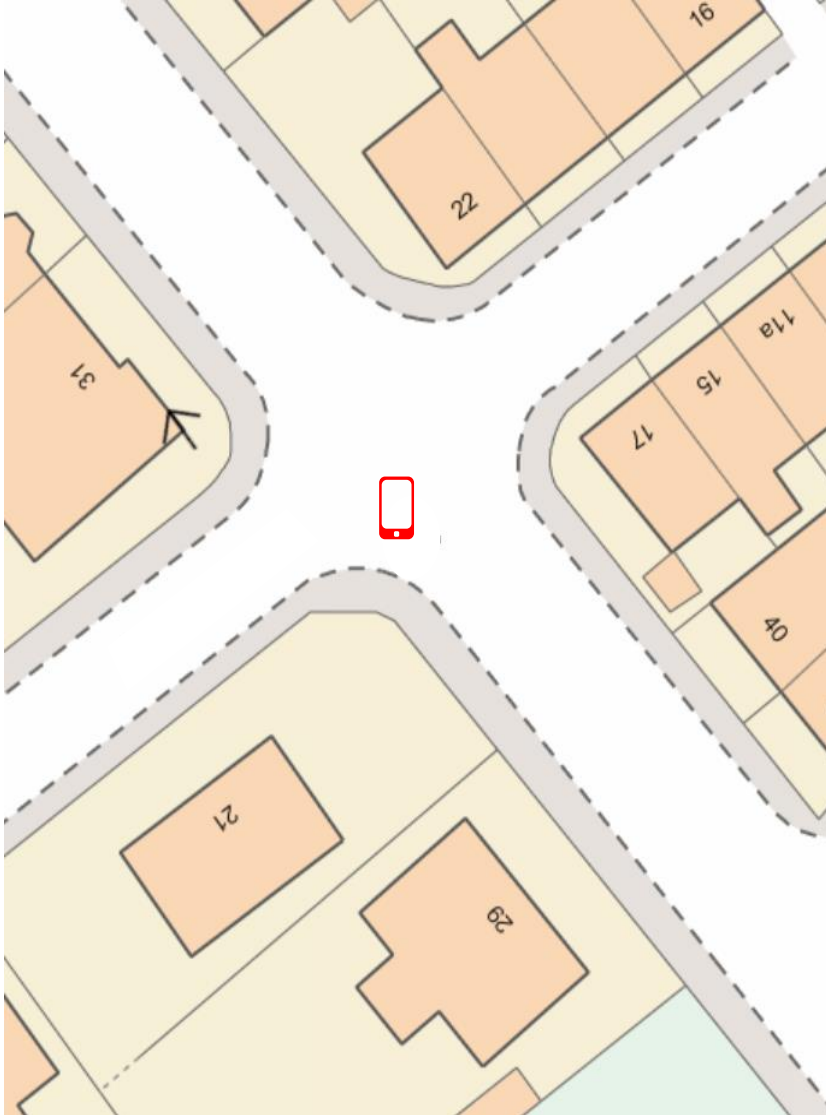


- Accurate location is critical for any investigation and analysis
 - Police
 - Highways Authorities
- CRASH7 was built to capture good location data
- Reduce keying
 - Uses technology to solve problems
 - Uses accurate mapping and digital networks
- National Mapping Agency
 - Ordnance Survey
 - Highways Layer
 - Integrated Transportation Network
 - National Street Gazetteer



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CRASH

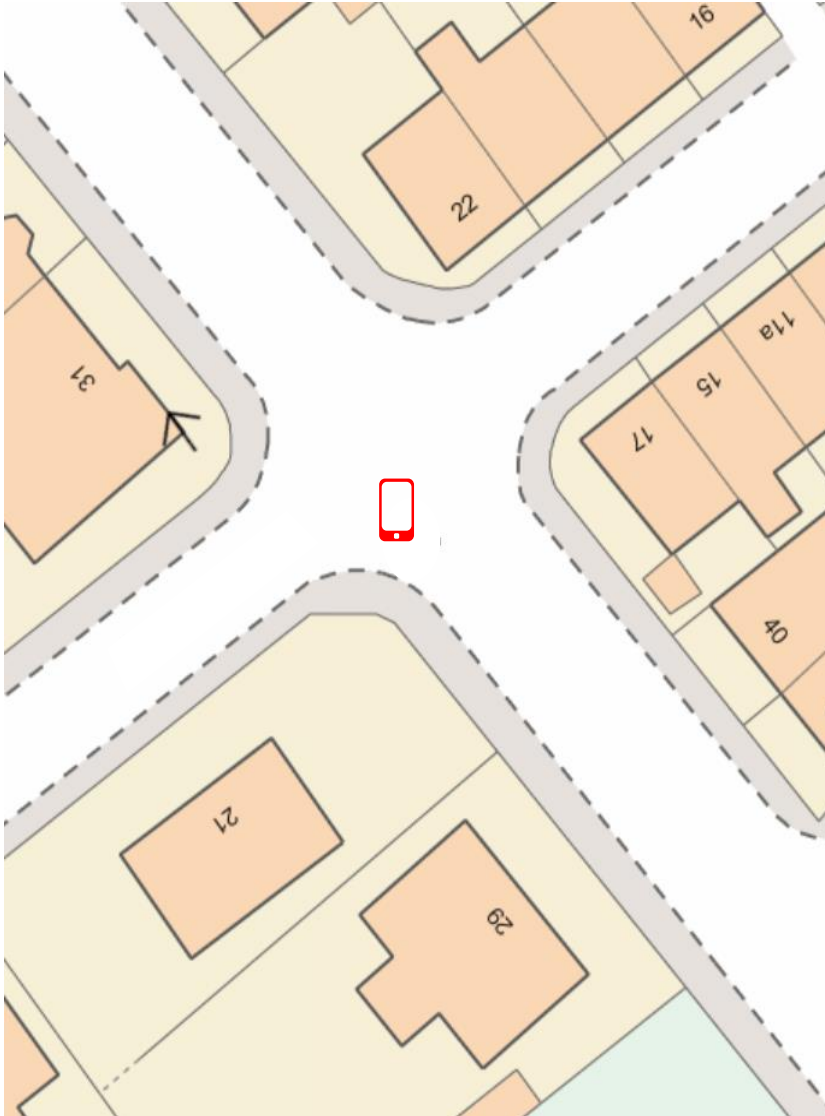


- Take picture of the accident





CRASH



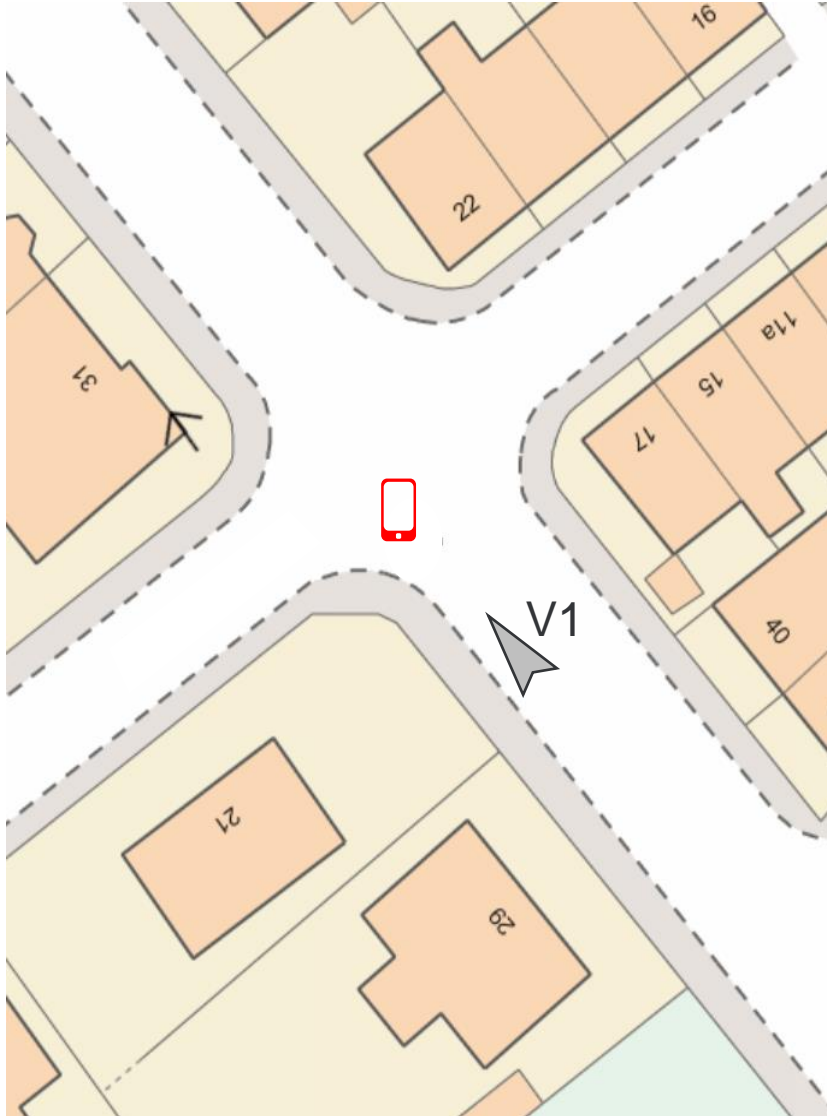
- Take picture of the accident



- Meta data captured from picture
 - Can be adjusted
 - Grid coordinates



CRASH



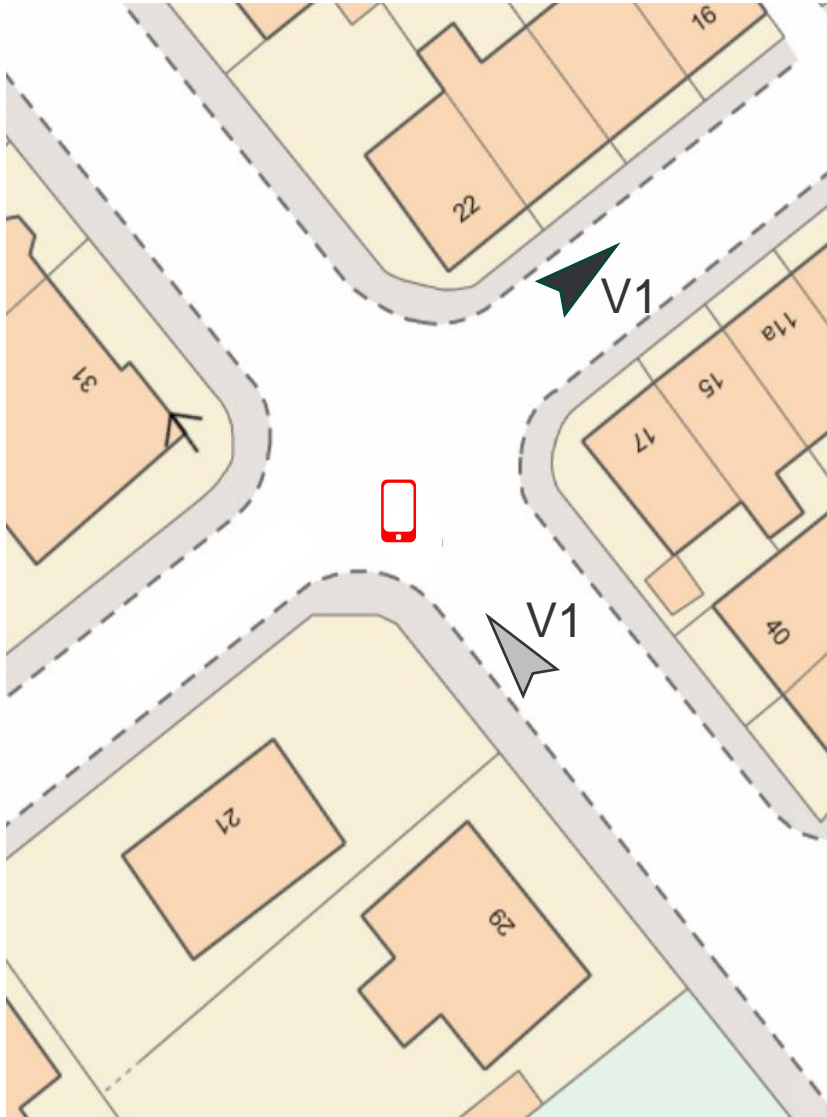
- Take picture of the accident



- Meta data captured from picture
 - Can be adjusted
 - Grid coordinates
- Movement direction from



CRASH



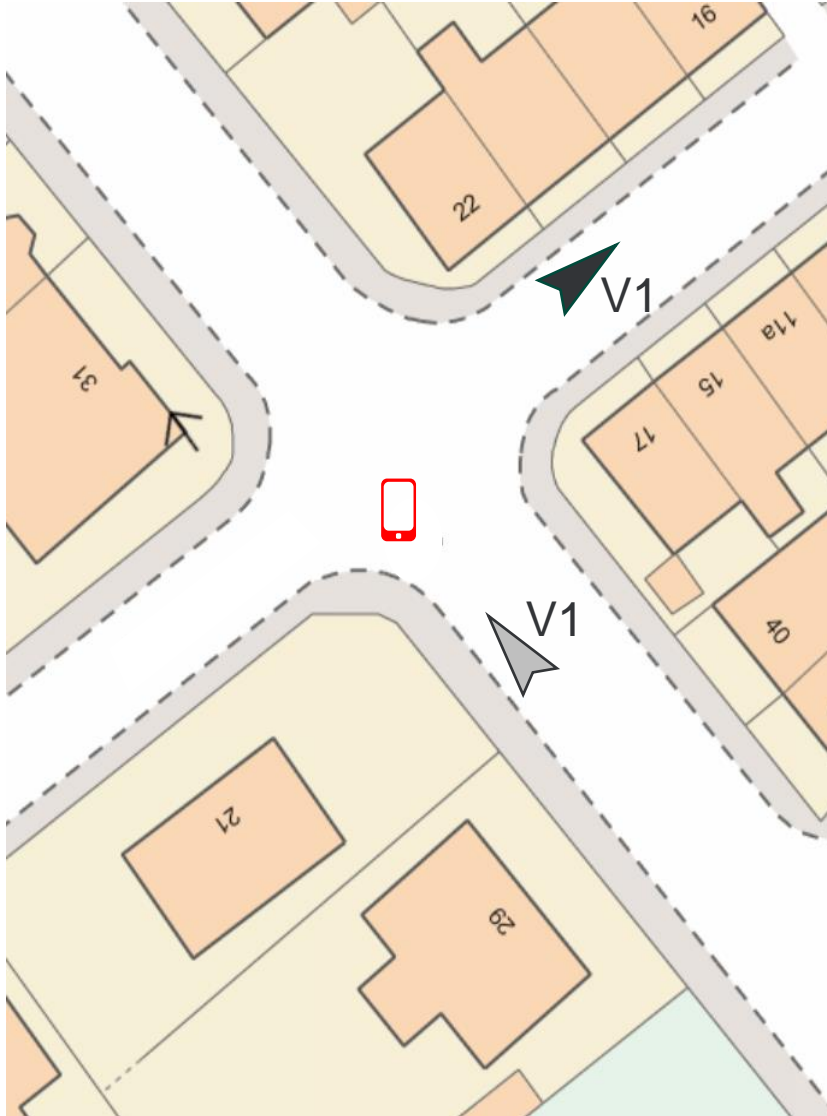
- Take picture of the accident



- Meta data captured from picture
 - Can be adjusted
 - Grid coordinates
- Movement direction from
- Movement direction to



CRASH



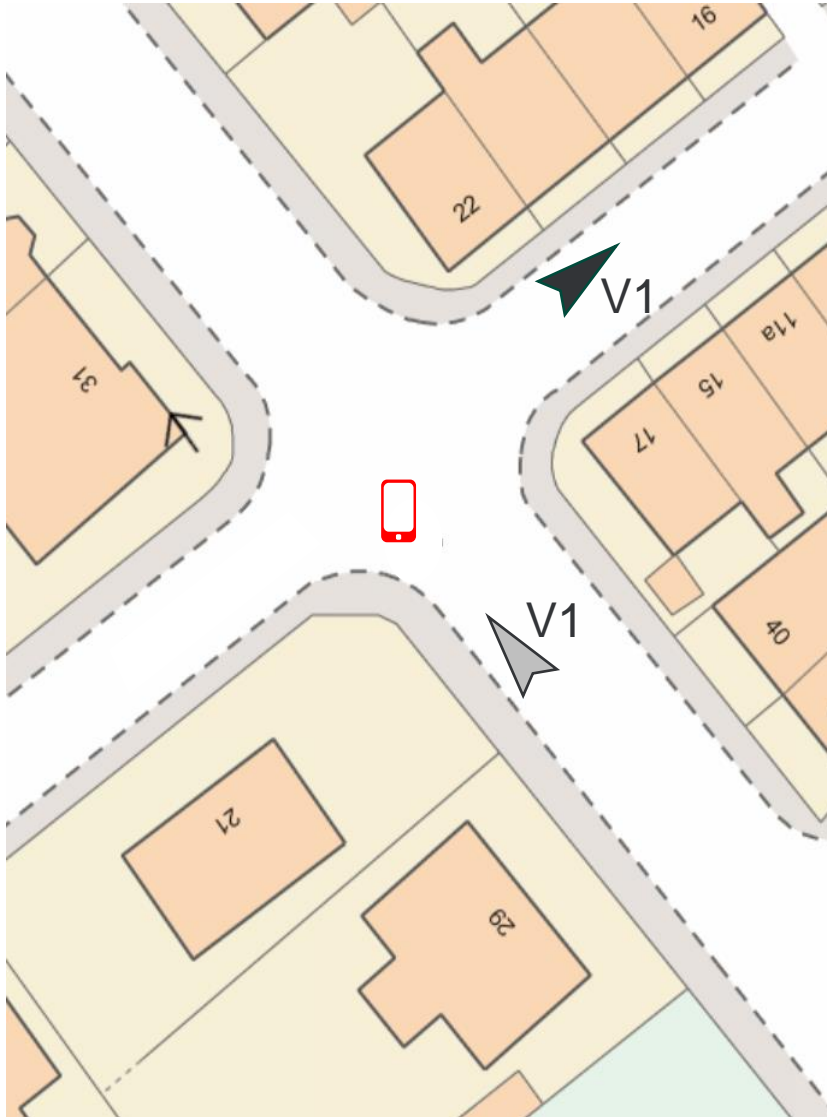
- Take picture of the accident



- Meta data captured from picture
 - Can be adjusted
 - Grid coordinates
- Movement direction from
- Movement direction to
- From those three points the codes for movement can be populated



CRASH



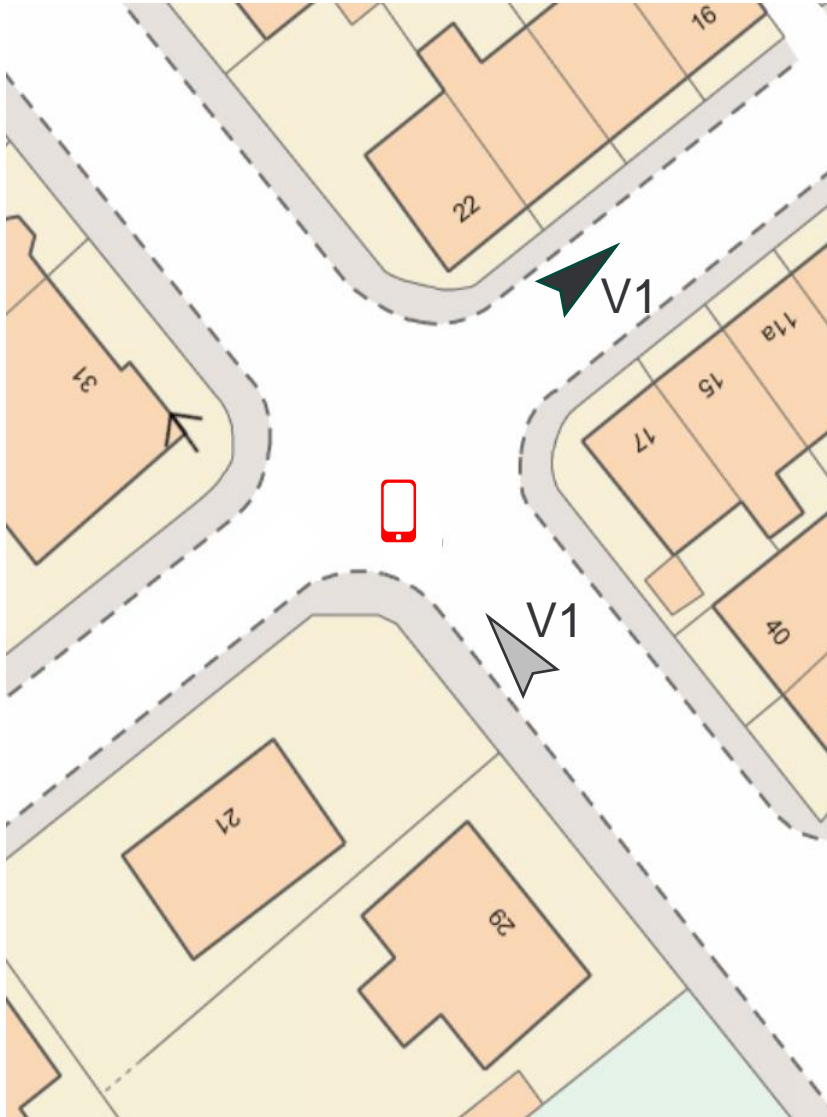
- Take picture of the accident



- Meta data captured from picture
 - Can be adjusted
 - Grid coordinates
- Movement direction from
- Movement direction to
- From those three points the codes for movement can be populated
- Admin data from OS Highways



CRASH



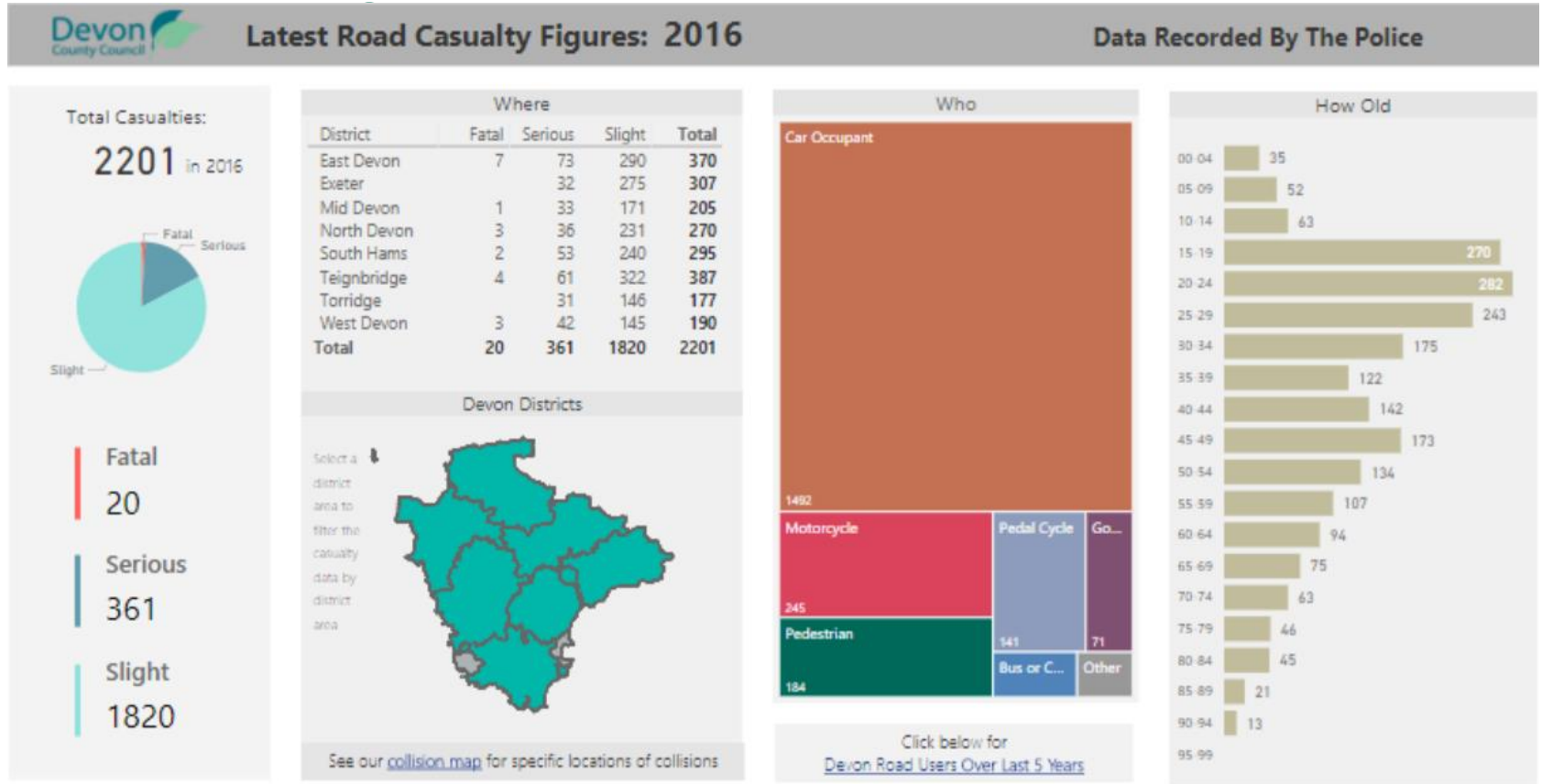
- Take picture of the accident



- Meta data captured from picture
 - Can be adjusted
 - Grid coordinates
- Movement direction from
- Movement direction to
- From those three points the codes for movement can be populated
- Admin data from OS Highways (A123)



CRASH - Dashboards



See our [webpage](#) for more info on casualty statistics. Casualty figures by area reflect where the collision occurred as opposed to casualty residency. This information is provided by Devon & Cornwall Police. It includes collisions recorded by the Police that occurred on a highway, involved one or more vehicles and human death or personal injury and only includes collisions that were notified to the Police within 30 days of occurrence. While every reasonable effort is made to ensure that the information provided is correct no guarantee for the accuracy of information are made.

Using Microsoft Power BI Software

Marie Woltman Devon CC



Next Steps - In the next 12 months

- ▶ Migration from Police National Computer (PNC)
 - Re-platformed from Oracle to SQL
 - Re-hosted using secure cloud hosting
 - 21 forces migrated to version 7 (Summer 2018)
- ▶ DfT will fund CRASH when management moves from the Home Office
 - It will be made available (at no cost) to England and Wales
 - Police forces
 - Highways authorities
- ▶ Version 7.1 deployed
 - Delivering almost all outstanding RFC's identified by users
 - Including Drugs Test data
 - Fataals Collisions package.



Next Steps - Looking to future developments

- ▶ DfT will have control of the development of the system

- ▶ DfT hosted a user conference
 - ▶ Road Safety Analysis
 - ▶ Gain understanding of what highway authority and police forces needs
 - ▶ Will have more user conferences in the future

- ▶ Following STATS19 review
 - ▶ version ?



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Severity Reporting in STATS19



Why move to injury-based severity classification

- ▶ UK Statistics Authority Review, July 2009
 - ▶ Identified the need to improve the classification of the severity of injuries
 - ▶ Removing subjectivity would lead to more accurate data
 - ▶ DfT commissioned research to
 - “Advise on the potential for a more refined definition of injury severity within the serious range that is practical for use by a non specialist officer”.



STATS19 has a broad definition for ‘serious injury’

STATS19 defines serious as:

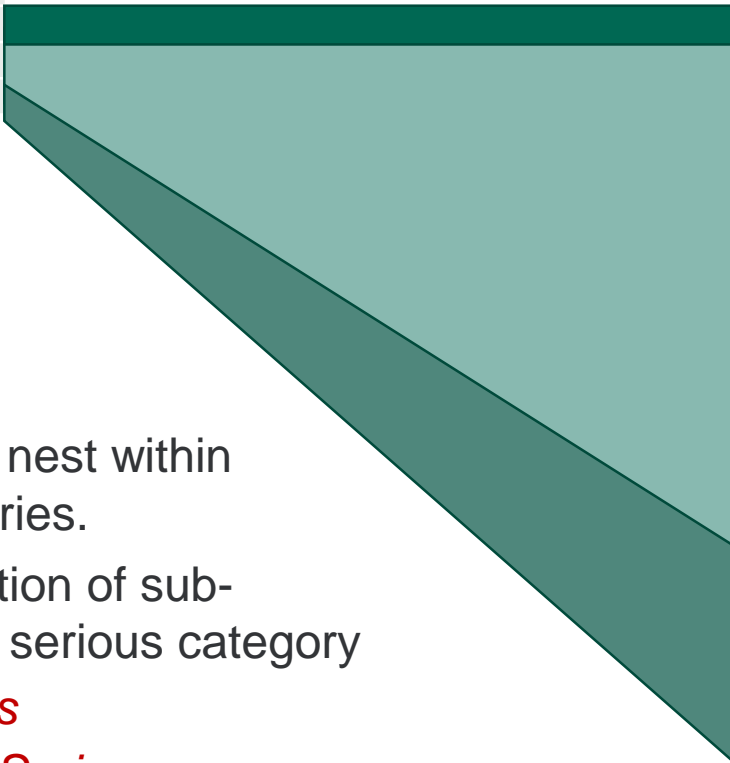
An injury for which a person is detained in hospital as an “in-patient”, or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushings, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment and injuries causing death 30 or more days after the accident.

- ▶ An injured casualty is recorded as seriously or slightly injured by the police on the basis of information available within a short time of the accident.
- ▶ This generally will not reflect the results of a medical examination, but may be influenced according to whether the casualty is hospitalised or not.
- ▶ Hospitalisation procedures will vary regionally.



Severity based assessment

Severity Code	Severity of Casualty
1	Killed
2	Serious
3	Slight



- ▶ Method should nest within existing categories.
- ▶ Led to introduction of sub-divisions of the serious category
 - ▶ *Very Serious*
 - ▶ *Moderately Serious*
 - ▶ *Less Serious.*

Injury based assessment Used in CRASH and COPA

injury code	Most Severe Injury	CRASH Police Forces only
1		1 Deceased
2		5 Broken neck or back
3		5 Severe head injury, unconscious
4		5 Severe chest injury, any difficulty breathing
5		5 Internal injuries
6		5 Multiple severe injuries, unconscious
7		6 Loss of arm or leg (or part)
8		6 Fractured pelvis or upper leg
9		6 Other chest injury (not bruising)
10		6 Deep penetrating wound
11		6 Multiple severe injuries, conscious
12		7 Fractured lower leg / ankle / foot
13		7 Fractured arm / collarbone / hand
14		7 Deep cuts / lacerations
15		7 Other head injury
16		3 Whiplash or neck pain
17		3 Shallow cuts / lacerations / abrasions
18		3 Sprains and strains
19		3 Bruising
20		3 Shock
21 Any*		Other injury

Segmentation into these categories seems straightforward.





Reported road casualties killed or seriously injured in Great Britain, 1996 to 2016



Years affected by introduction of injury classifications

2 1 9 22

Injury effect affects these years

Number of forces using injury classification



▶ **Anticipated an effect**

- ▶ Expected some changes in the classification of slight v serious injuries

▶ **Observations**

- ▶ Fatalities are not affected
- ▶ Overall totals are not affected
- ▶ Increase in casualties previously classified slight have now become severe
- ▶ Some casualties previously classified severe have now become slight
- ▶ Some additional training was required (superficial bruising)
- ▶ There has been some misclassification for superficial (bruising) injuries

▶ **Discontinuity in KSIs**

- ▶ Now apparent it has a significant effect on local and national KSI trend
- ▶ Initial high level analysis suggests approx. 20% increased at the force level.
- ▶ Wide variation in the effect between forces and systems



▶ Impacts if we can't adjust figures

- ▶ Undermines credibility of the statistics
- ▶ We can't monitor effectively over time
- ▶ Measuring relative performance between areas and roads depends on which system police forces are using
- ▶ We could be investing money on the wrong projects / locations
 - Safer Road Fund
- ▶ Many have KSI based KPI targets in place
 - Highways England

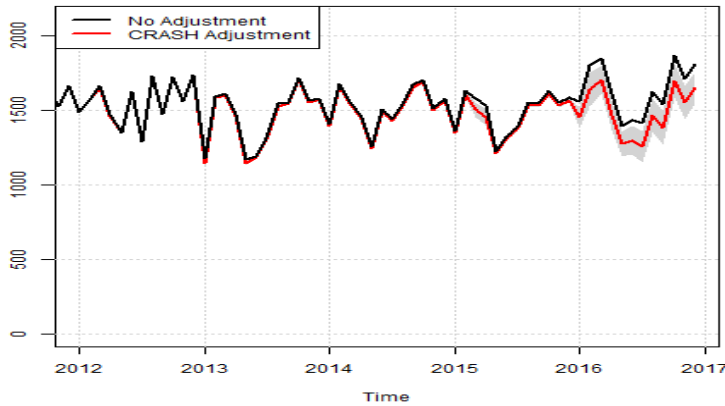
▶ What has DfT done to address this issue

- ▶ Commissioned the Office for National Statistics to undertake research
- ▶ Methodology Advisory Service (MAS) will conduct the research
- ▶ Delivered some emerging findings



Emerging Findings

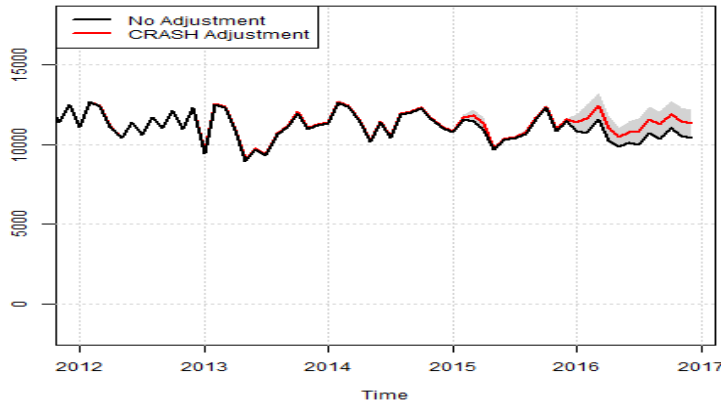
Total GB Serious Casualties



— Unadjusted
— Adjusted
← Confidence

Opposite effects on serious
and slight casualty numbers

Total GB Slight Casualties



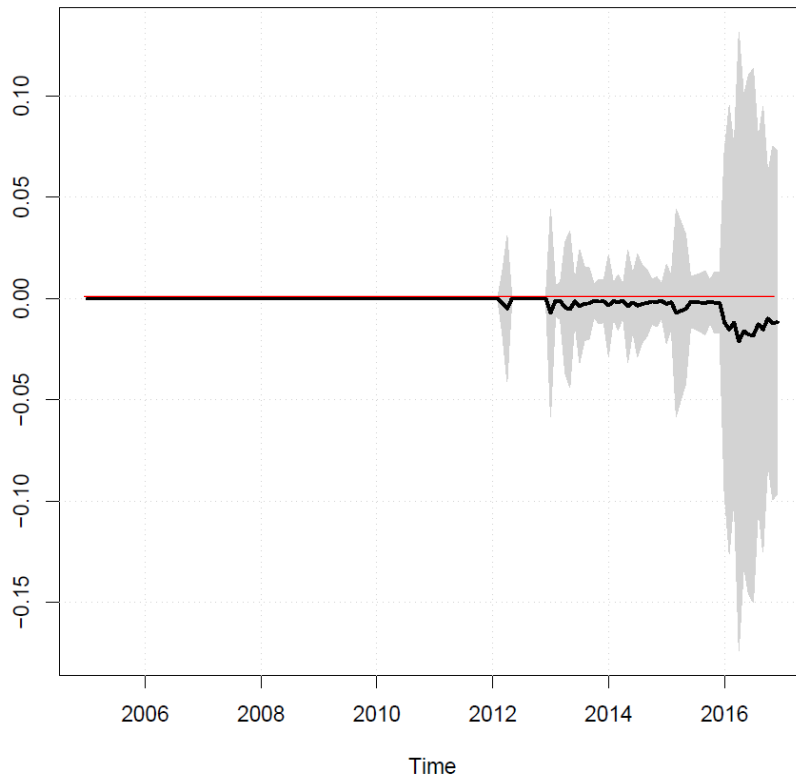
← Confidence
— Adjusted
— Unadjusted



There could be differences between road user types

Pedal Cyclists

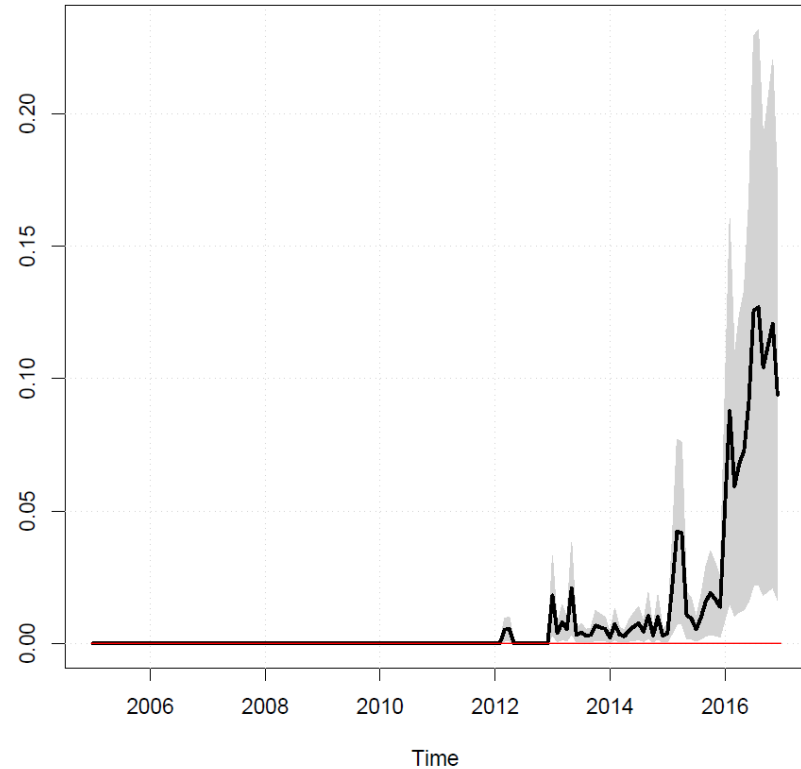
Estimated Proportion of Additional Serious Casualties



Decrease in severity for cyclists

Pedestrians

Estimated Proportion of Additional Serious Casualties

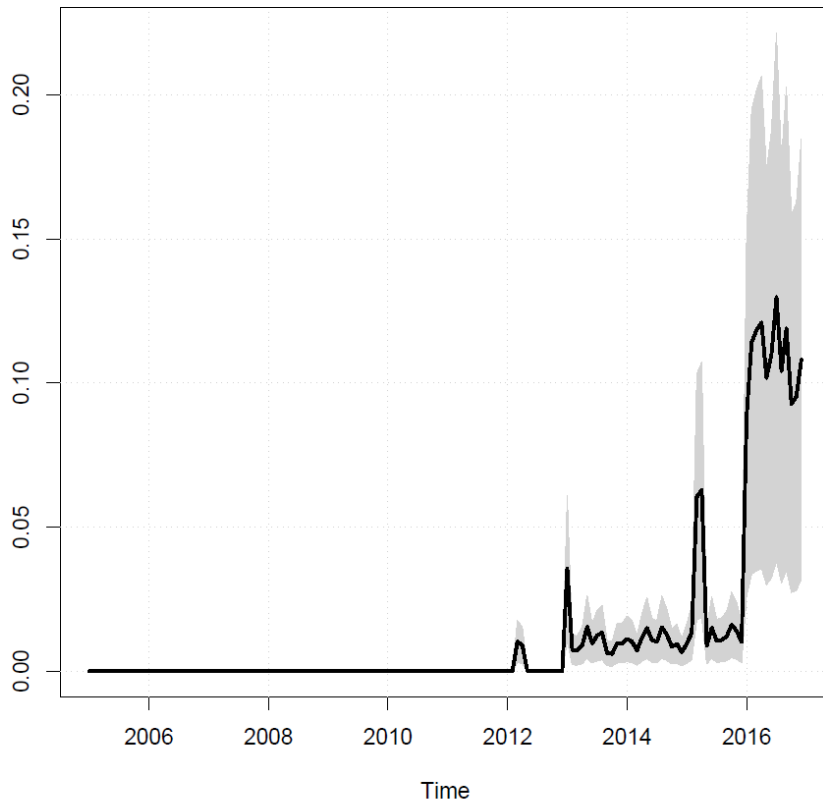


Increase in severity for pedestrians



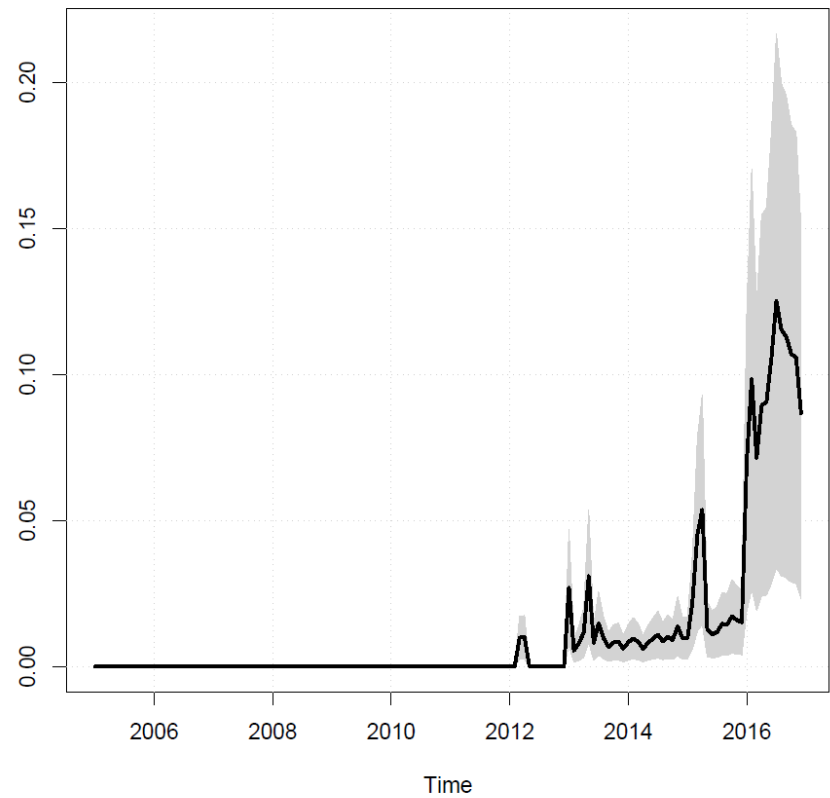
Rural

Estimated Proportion of Additional Serious Casualties



Urban

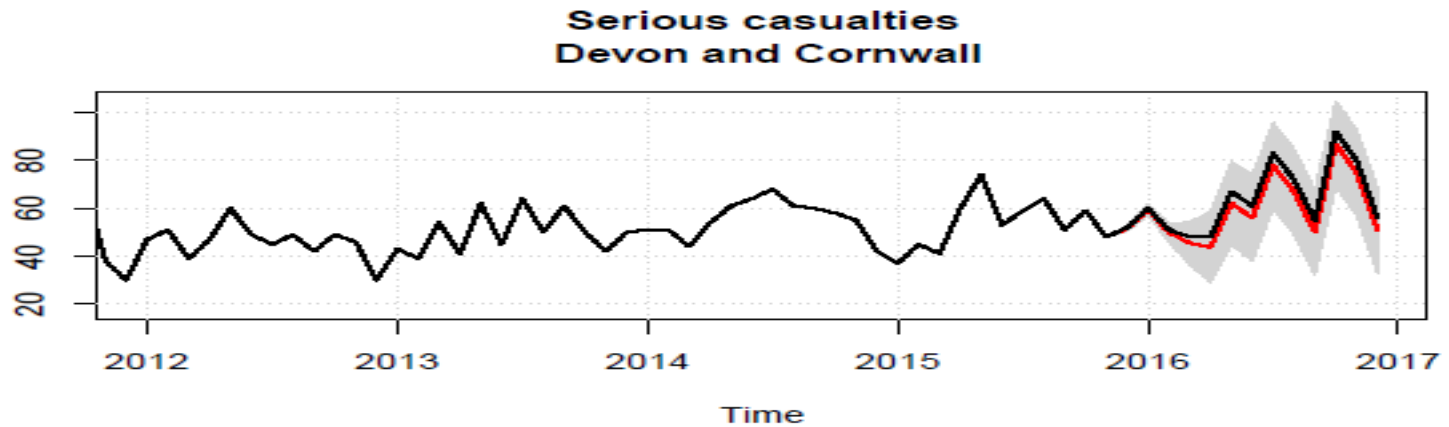
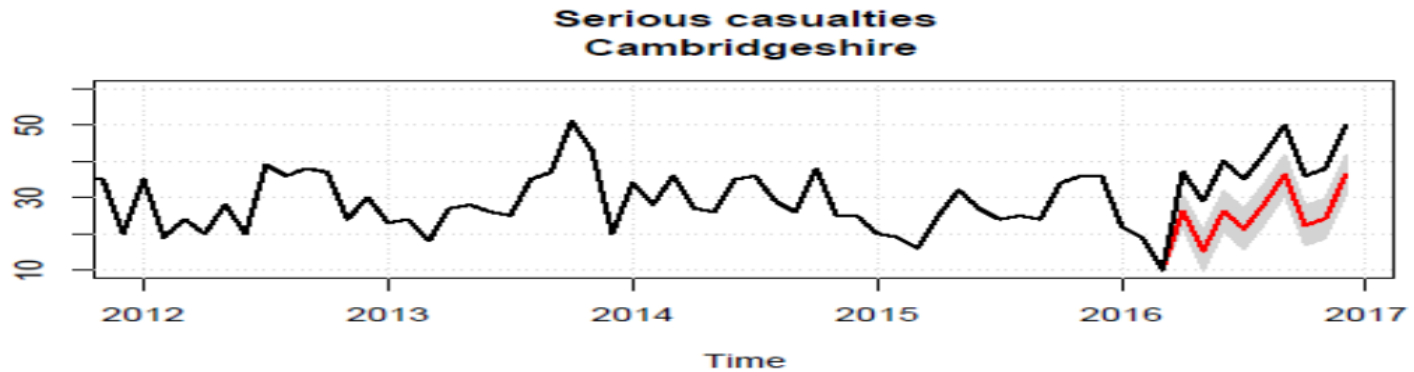
Estimated Proportion of Additional Serious Casualties



Not seeing a significant difference between urban and rural



Differences between police forces





What's next

- ▶ The Methodology Advisory Service will continue to investigate
- ▶ Harmonizing severity reporting in the next STATS19 review



New ways to report road accidents to the police



- **Public**
 - The public's expectations is to be able to report/apply for things on line.
- **Home Office initiative**
 - Project for digital public contact
 - Aim to provide digital ways to report/apply to the police
 - On line accident reporting is one of them
- **Metropolitan Police Service (MPS)**
 - Developed an on line reporting tool.
 - Roll out
 - MPS 11/2017
 - TVP 02/2018
 - Hampshire 03/2018
- **DfT reviewed the form at New Scotland Yard**
 - Work still needs to do done
 - Triage logic
 - Lack of validation within the form
 - Compliancy with the legislation.





New ways to report road accidents to the police

• Situation now

- If you need to report a road traffic accident you must do so in person at a police station or to a police constable.

• Road Traffic Act 1988

- Does not specify that the report needs to be made in person

• Case law

- Wisdom v MacDonald [1983]
 - Defined police to mean
 - To a police officer
 - At a police station
- Reporting by other means (telephone) was not compliant with the legislation.

• To enable on line reporting the law needs to change



179
 Duty of driver to stop, report accident and give information of circumstances.
 (1) This section applies in a case where, owing to the presence of a [F1] vehicle in a public place, an accident occurs by which—
 (a) personal injury is caused to a person other than the driver or [F1], or
 (b) damage is caused—
 (i) to a vehicle, other than that [F1] mechanically propelled by the driver or [F1], or
 (ii) to an animal other than an animal in or on that [F1] mechanically propelled by the driver or [F1], or
 (iii) to any other property constructed or used in or on that [F1] mechanically propelled by the driver or [F1],
 (2) In any other case, a driver of a [F1] mechanically propelled vehicle must stop and if required to do so by a constable, give his name and address and also the name and address of the [F1] mechanically propelled vehicle.
 (3) A driver of a [F1] mechanically propelled vehicle who fails to comply with section 179(1) or (2) above, shall be liable to a fine not exceeding [F2] or to imprisonment for a term not exceeding [F3] or to both such fine and imprisonment.
 (4) A driver of a [F1] mechanically propelled vehicle who fails to comply with section 179(1) or (2) above, shall be liable to a fine not exceeding [F2] or to imprisonment for a term not exceeding [F3] or to both such fine and imprisonment.





New ways to report road accidents to the police

- **Proposal**

- To allow police forces to offer drivers the option of submitting accident reports by other methods.

- **Changing the law**

- The proposals would require changes to Section 170 of the Road Traffic Act 1988.

- **Consultation required**

- Launched 30/01/2018
- Closes 24/04/2018

- **Have your say**

<https://www.gov.uk/government/consultations/new-ways-to-report-road-accidents-to-the-police>



Short link bit.ly/2FtjCpw



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STATS19 Review



STATS19 Review

- **STATS19 reviews occurs every five years.**
 - last review was in 2008
 - Set the 2011 Specification
- **Specification can only be changed by a review**
 - Variables collected
 - Codes used within each variable
 - Validation rules
 - Transmission rules



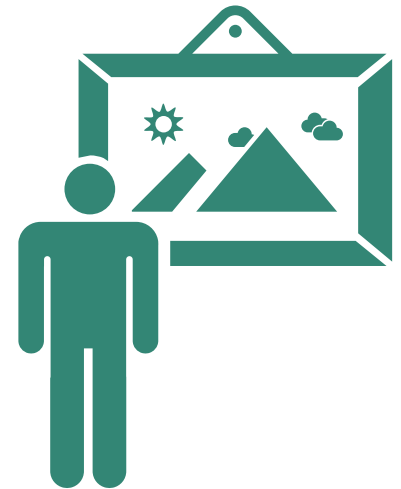


Need for a review

- **Harmonize severity reporting**
- **What is the scope of the review**



- **Does the specification allow for emerging innovations**
 - Autonomous vehicles
- **Contributory factors for use by a non specialist officer**
 - Are they the right set
 - Can this be made more objective
 - Can it be simpler
- **Ensure collecting the data you need?**
 - Are the variable collected the right set





- **DfT has been working on getting things ready**
 - Drafted consultation document
 - Gathering information
 - Awaiting resource





Questions



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