



# Economic impact of acid attacks in the UK

---

## Methodology and findings

July 2018



# OVERVIEW

## We aim to estimate the economic cost of acid attacks to society

### Problem

- Acid attacks are an increasingly common phenomenon in the UK, with the number of reported attacks up from around 250 in 2014 to nearly 1,000 in 2017.
- While the devastating human cost of an acid attack is clear, the economic cost to society of this crime has not been assessed in detail.

### What we have done

- We have created a model which aims to estimate the economic cost to society of an acid attack.
- We then combine the number of attacks in a given year with the cost per case to estimate the total cost to society of acid attacks in that year.

### Our approach

- Our model covers three key areas of impact: justice system, NHS, and victim.
- For each of these areas, we estimate a number of individual parameters (such as the number of police hours spent prosecuting each case) using available data where possible and informed assumptions where data is unavailable.
- We use a variety of sources to inform the model, including (a) police figures on the number of attacks reported, number of arrests made etc.; (b) government data on wages, the cost of incarceration, the physical/emotional impact on the victim etc.; and (c) expert judgement and informed assumptions where concrete data is unavailable.

# APPROACH

## We have taken a conservative approach to estimating costs

We have assessed three of the key elements of acid attacks' cost on society

### Justice system

- We estimate:
  - Proportions of cases to be reported, to reach trial, and to lead to conviction.
  - Costs incurred by different elements of the justice system if cases reach trial, conviction etc.
  - The average length and cost of incarceration / community service.

### NHS

- We use a recent NHS estimate of the total cost of treating an acid attack victim.
- <https://www.england.nhs.uk/2017/08/new-help-for-acid-attack-victims-following-recent-rise-in-demand-for-nhs-help/>

### Victim

- We estimate:
  - The cost of lost work and reduced productivity.
  - The cost of using (non-NHS) victim services.
  - The physical and emotional impact of being the victim of an acid attack.

We have taken a conservative approach to estimating costs, given the lack of hard data available. We have excluded costs to the perpetrator and indirect costs (e.g. the cost of court administration), and we have made conservative assumptions where data is unavailable.

These limitations, and our conservative approach to dealing with each, are detailed on the next slide.

# POSSIBLE DEVELOPMENTS

## There are ways in which our study could be built upon in future

### Development #1

*Exclusion of  
perpetrators*

- We don't include costs to the perpetrator, due to the difficulty in estimating the long-term and complex effects of incarceration on an individual, and our desire to ensure that the model estimates are conservative.

### Development #2

*Exclusion of indirect  
costs*

- Due to the lack of reliable data mentioned above, we restrict our model to only those key parameters which are known to be crucial to understanding the **direct** cost of an acid attack.
- By direct cost we mean those costs which are highly likely or certain to not have been incurred were it not for the attack. For example, we include the cost of a lawyer's time in prosecuting each case, but we do not include the general running costs of the court, as these would anyway have been incurred were it not for the specific attack being considered (but could in theory be distributed across each different case taking place there).
- We also do not include other costs such as impacts on the victim's family and friends, the potential heightened fear of acid attacks, the potential risk of 'copycat' attacks, and wider reputational costs to the UK.
- We are therefore again taking a conservative approach, by only considering the direct costs of an attack.

### Development #3

*Lack of reliable data*

- We have a large number of parameters that are based on informed assumptions due to a lack of available data.
- To ensure we do not overstate the cost of acid attacks we have taken a conservative approach to estimating each of these parameters, but this means that our model is less precise about the cost than we would like it to be.

### Development #4

*Physical and  
emotional impact on  
the victim*

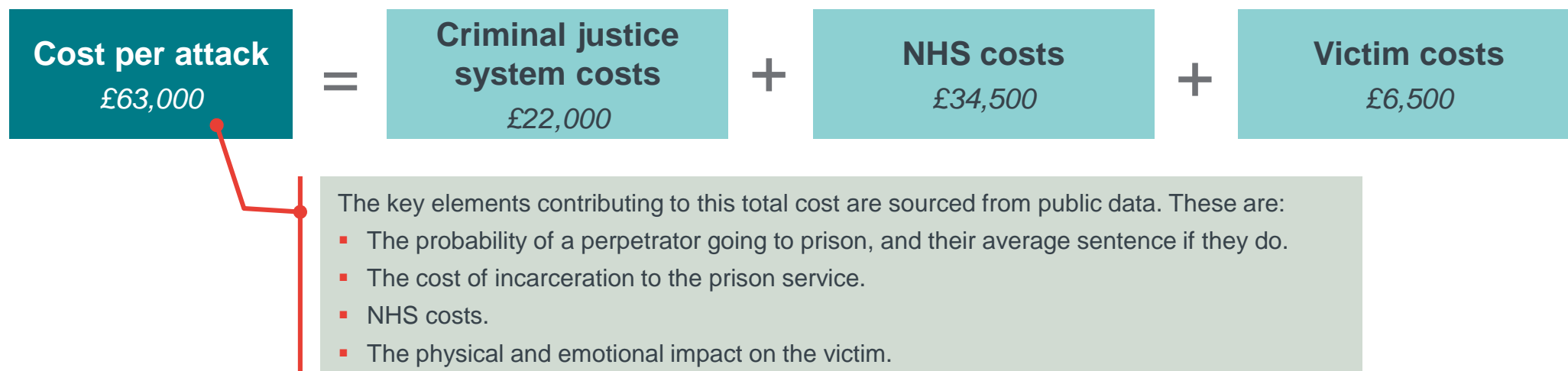
- The most important cost of an acid attack is the impact on the victim.
- To estimate the physical and emotional impact on the victim, we use a government estimate of the physical and emotional impact of a 'serious wounding' crime.<sup>1</sup>
- While this is the best estimate available, it is unsatisfactory (and highly conservative), given that
  - The original estimate was for serious wounding attacks in general rather than acid attacks in particular, which are known to have a particularly serious psychological impact on the victim.
  - We do not and cannot fully capture in monetary terms the human cost of an acid attack (e.g. the effect on a victim's self-confidence and chance of depression, and the heightened risk of suicide).

## FINDINGS

### The economic cost of each acid attack is at least £60,000

We combine our estimates of costs to the criminal justice system, the NHS, and the victim to find an estimate of the total cost to society per acid attack: £63,000.<sup>1</sup>

As outlined above, this estimate is **highly conservative**.



We can then combine this estimate of the total cost per attack with an estimate of the number of attacks in 2017, to find the estimated total cost to society of acid attacks in 2017: £60m.

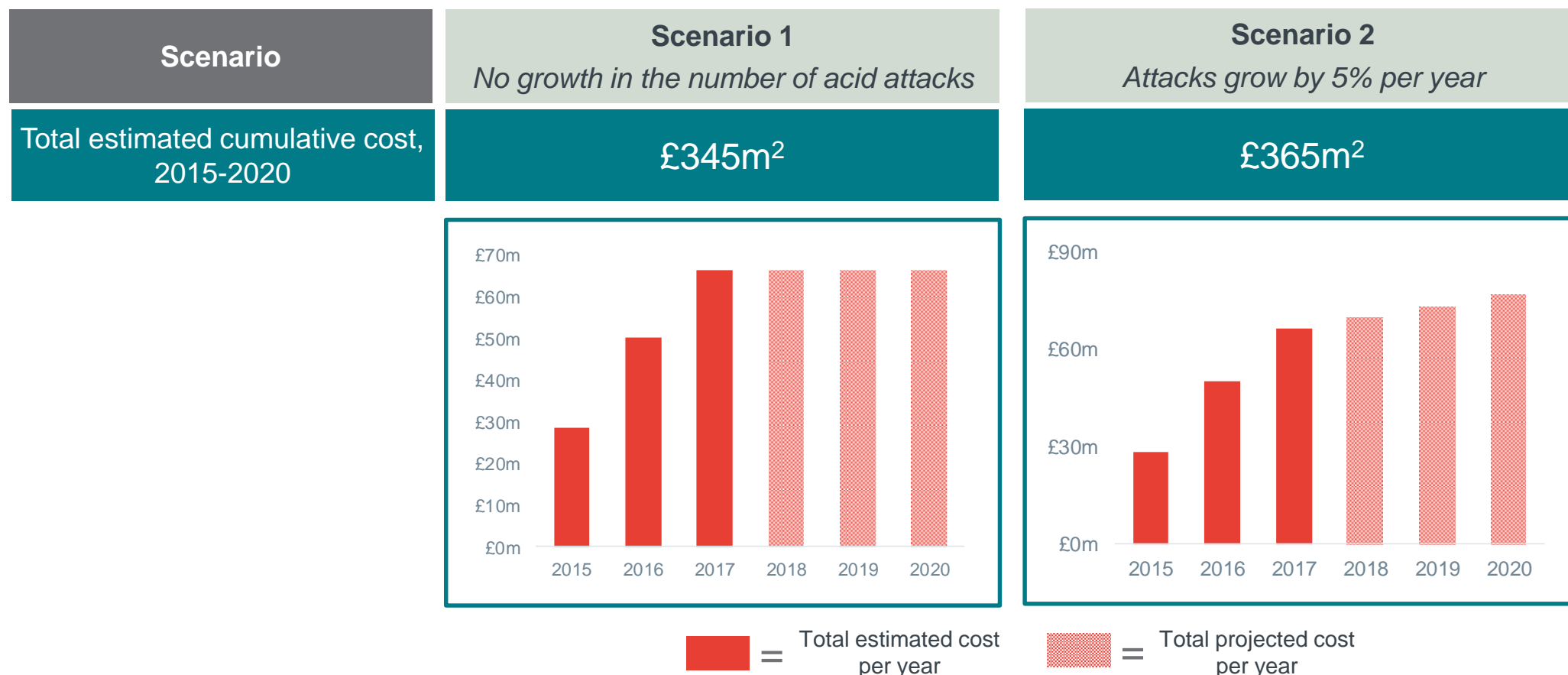


# FINDINGS

## The cumulative cost of acid attacks across 2015-2020 is >£300m

Using data on the number of acid attacks in the last three years, we can estimate the total cost of the crime over this period. We can also model different scenarios of growth in the number of attacks, to estimate the total cost of the crime over the next three years. These are combined below to estimate the total cost of acid attacks between 2015 and 2020.<sup>1</sup>

The number of acid attacks grew by an average of 54.1% per year between 2015 and 2017 – we conservatively assume a large fall in the growth in attacks in both scenarios below. Even so, the estimated cumulative cost is still in excess of £300m.





The Frontier Economics network consists of two separate groups, Frontier Economics Limited (incorporated in the UK) and Frontier Economics Pty Limited (incorporated in Australia). The two groups are independently owned, and legal commitments entered into by one group does not impose any obligations on the other group in the network.