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# Acid Crime

## Context, Motivation and Prevention

**Matt Hopkins**  
**Lucy Neville**  
**Teela Sanders**

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This book is the cumulation of a process that started in late 2017. At the time, the UK was experiencing a rise in number of acid attacks, especially in some parts of London. Concerns about the use of acid as a weapon became a focus of policy attention and the HM Government Serious Violence Strategy of April 2018 made a commitment to conduct research to better understand the motivations of those who carry and use acid and corrosives in crime. The authors of this book were commissioned to complete that work, which resulted in a Home Office report on the findings being published. However, the fieldwork completed for that study revealed much that we felt was worthy of deeper academic analysis and development than could be conducted for a policy report. This book is the end result of that analysis, which not only reveals much about motivations for carrying and using corrosives, but also about offender attitudes to the possession and use of weapons more generally.

There are many people without whom this book would not have been possible. First we would like to express gratitude to the police professionals, criminal justice practitioners and voluntary sector workers who engaged with the fieldwork and provided data. We would also like to express thanks to the people in senior policing, policy and charity circles who firmly backed and invested much of their time into this research—especially Simon Eglington, Victoria Richardson and Andy Feist from the UK Home Office; ACC Racheal Kearton—Chair of the National Corrosive Substances Working Group; Detective Superintendent

Mike West of the Metropolitan Police Service and Jaf Shah—Executive Director of Acid Survivors Trust International. Finally, we owe a huge debt of gratitude to the offenders who agreed to be interviewed for this project. On commencing the fieldwork for this study, we soon realised that prisoners agreed to an interview for several reasons. For most, prison is dull and repetitive and the chance to talk to a researcher presented an opportunity for some relief from the mundane nature of prison life. It was also an opportunity for prisoners to complain about their sentence, prison food or the situation they found themselves in. However, most were also keen to help us find preventative solutions to the problem of corrosive substance crime. The authors would like to make it clear that whatever the reason for your engagement in the interview process, we would like to express our deepest thanks.

It is, of course, normal practice for authors to dedicate their work to loved ones. However, the authors of this book feel the subject material requires the book to be dedicated to the many who have lost their lives and the living survivors of acid attacks across the world. There have been too many. We live in hope that the use of acid and corrosives to attack another human being can one day be consigned to history.

# CONTENTS

1	An Introduction: Acid Attacks and Corrosive Substance Crime	1
2	Acid Attacks and Corrosive Substance Crime: An Introduction to the Previous Literature	21
3	The Contexts and Characteristics of Acid Attacks	49
4	Carrying Acid and Corrosives	75
5	Motivations to Use Acid: The Transition from Carrier to Thrower	105
6	Preventing Acid Attacks and Corrosive Substance Crime	137
7	Conclusions	171
	Annex 1: Research Methodology	187
	References	199
	Index	201



# LIST OF FIGURES

Fig. 1.1	Corrosive substance crimes in London: 1981–1989 and 2010–2016 (Data from Beare [1990] [records of assaults with a noxious substance] and Hossain et al. [2020] [records of causing explosions, sending explosives or throwing corrosive fluids with intent to do grievous bodily harm])	12
Fig. 3.1	Proportion of cases with 1 or more victims/1 or more offenders (Base: case file data: 638 cases where number of victims known and 565 where number of offenders known)	54
Fig. 3.2	The victim/offender relationship in corrosive substance crimes (Base: case file data = 445 cases. 31% ( $n = 203$ ) of the 648 cases did not capture the victim/suspect relationship and have been removed when calculating the percentages in this graph)	62
Fig. 3.3	Locations of corrosive substance crimes (Base: case file data = 636 cases where locations were known. Data missing in 12 cases)	64
Fig. 3.4	Percentage of corrosive crimes by indices of multiple deprivation (Base: case file data = 440 cases with full postcodes data of where the crime took place that could be matched to an area’s ranked IMD score. The total may not add to 100% here due to rounding of numbers)	66

Fig. 4.1	How corrosive substances are concealed and carried (Base: Case file data: $n = 450$ cases where information available on types of vessel used to carry corrosives. The total may not add to 100% here due to rounding of numbers)	86
Fig. 4.2	The cycle of protection and the carrying of weapons	94
Fig. 5.1	Factors present in the transition from acid carrier to acid thrower	108
Fig. 5.2	Motivations for attacks/why corrosives used (Base: Case file data: $n = 450$ cases. *The total may not add to 100% here due to rounding of numbers)	113
Fig. 6.1	Corrosive substances carrying and throwing: a theoretical framework	139

## LIST OF TABLES

Table 1.1	Numbers of acid attacks/corrosive crimes—international comparisons from countries where data are available	10
Table 2.1	Motivations for acid attacks—previous literature	28
Table 3.1	Types of corrosives used in violent crime	52
Table 3.2	Victims and suspects by age	58
Table 3.3	Victims and suspects: Ethnicity	59
Table 5.1	Factors that shape the transition from corrosive carrier to thrower	129
Table 6.1	Examples of control and regulation of acid supply globally	142
Table 6.2	Examples of acid violence legislation	147
Table A.1	The number of offences involving a corrosive substance included in the case file analysis for the eight police force areas over a three-year period (2015–2017)	191
Table A.2	Response rates for offender interviews	194



# An Introduction: Acid Attacks and Corrosive Substance Crime

**Abstract** This chapter introduces the reader to the subject of acid attacks and corrosive substance crime. It begins by defining what acid attacks are and identifies there is some confusion over the concept. Attention then turns to historical perspectives and identifies that acid attacks or ‘vitriol throwing’ have featured regularly in news reports and literature for the best part of 200 years. We then move on to understand the development of acid attacks as a contemporary problem and review data on the number of attacks worldwide. Finally, an overview of the structure of the book and its main content is presented.

**Keywords** Acid attack · Corrosive crime · Historical perspectives on acid attacks · Acid attacks as a contemporary crime problem

The primary aim of this book—through the analysis of 600 corrosive substance crimes and interviews with 25 offenders convicted for using acid, ammonia or other corrosives in crime—is to make a significant contribution to the global literature on the criminal use of corrosives. Although the subject of acid attacks has received considerable media attention worldwide, this area has not been the subject of detailed

academic research. Studies to date have tended to be epidemiological—analysing the type and extent of injuries sustained by survivors of corrosive substance crimes. A general lack of criminological focus has been the case—either in relation to measuring the occurrence of acid attacks, understanding offenders’ motivations for using corrosives in crime events or identifying potential preventative strategies. This dearth of criminological research is somewhat surprising, considering the concerns that have been expressed about the issue in both the media and policy arenas. Although acid attacks have constituted a social problem in many countries worldwide, in December 2017, the British media claimed that the United Kingdom (UK) had one of the highest rates of acid attacks in the world (Dearden 2017). From 2012 to 2019, reports of acid and various other corrosive substances being used in attacks on men, women and children were regular occurrences. A scan through news items reporting on acid attacks in the UK over this period reveals a vast array of headlines relating to attacks using different types of substances on a range of victims. For example:

- January 12, 2019: ‘ACID ALERT Two men attacked with acid in brawl near King’s Cross station: Two men were rushed to hospital after being splashed with acid during a horrific attack outside King’s Cross station’ (*The Sun* 2019).
- July 23, 2018: ‘Boy, 3, in acid attack and his mother put under police protection as four arrested for “unspeakable crime” caught on camera’ (*Daily Telegraph* 2018).
- November 13, 2017: ‘CCTV reveals TOWIE ex Arthur Collins hurling ACID horrifically burning 14 clubbers: THIS is the moment TOWIE star Ferne McCann’s ex Arthur Collins hurled acid over 14 clubbers in a horrific attack’ (*Daily Star* 2017).
- December 9, 2017: ‘Robbers used ammonia to attack victims: A pair of robbers who laughed after squirting corrosive cleaning fluid in the faces of women were jailed for ten years’ (*The Times* 2017).

In the UK, concerns over corrosive substance crime led to the development of the 2017 Acid Attacks Action Plan, acid attacks formed part of The Serious Violence Strategy in 2018 and new possession offensives were created in the 2019 Offensive Weapons Act (Lipscombe and Hutton 2017; Home Office 2017, 2018). However, widespread concerns have

existed for some time regarding the issue of acid violence in countries such as India, Pakistan, Bangladesh, Nepal, Uganda and Cambodia (see ASTI 2015; ASTI, n.d.). Typical examples include the case of Reshma Qureshi, who was only 17 when her former brother-in-law poured acid over her face in an attack in Allahabad (Uttar Pradesh, India) in 2014 (*The Guardian* 2019). Laxmi Agarwal was attacked in New Delhi in 2005 at the age of 16 after she had rebuffed the romantic advances of family ‘friend’ Naeem Khan (*The Times of India* 2005). Gloria Kankunda was attacked in 2010 in Kampala (Uganda) by a man who poured acid over her, leaving burns on 70% of her body (Malm 2016). Such attacks are a common representation of a widely reported type of violence where women find themselves victims of male aggression. However, in other reported attacks, the motives have been less clear. For example, on 2 July 2019, four monks from Preah Soramareth Buddhist University were attacked in Cambodia, two of whom were seriously injured in the incident (*Cambodia Expats Online* 2019). However, the motivation for this assault was never established.

While the horrific nature of acid attacks has led to widespread coverage in the global media, survivors’ accounts of attacks have also been the focus of books and films. For example, books have been published recounting the stories of Russel Findlay, Katie Piper, Adele Bellis, Reshma Quresh and Natalia Ponce de León. Specifically, Russell Findlay, a journalist who investigated organised crime, was attacked with sulphuric acid on his doorstep in Glasgow in 2015 (Findlay 2018). Katie Piper was attacked with sulphuric acid in 2008 by an ex-boyfriend and an accomplice, sustaining injuries so serious that she spent 12 days in an induced coma (Piper 2011). Adele Bellis was the victim of an attack instigated by her ex-boyfriend in Lowestoft, UK in 2014 (Bellis 2016). As noted earlier, Reshma Quresh was attacked at the age of 17 by her ex-brother-in-law in Allahabad, India (Quresh and Singh 2018). Natalia Ponce de León was attacked in Bogotá (Colombia) by a man who was said to be obsessed with her. The accounts given in such books appear to serve a number of functions (Soto 2015). First, they allow the public to consume in an eminently accessible way the realities of the physical and emotional suffering that survivors go through. Second, all the accounts demonstrate how survivors have overcome adversity to lead successful lives after being attacked. Lastly, they have helped stimulate extensive debate about the motivations for acid attacks and the harms generated by such violence. For example, the release of the film *Chhapaak* in 2019, which told the story

of Laxmi Agarwal (see above), sparked considerable debate about such harms along with the regulation of acid sales in India. Director Meghna Gulzar described *Chhapaak* (the Hindi word for ‘Splash’) as a film about trauma and triumph and a way of exploring the issue of acid attacks in the country through film (*The Daily Excelsior* 2019).

The widespread coverage of acid attacks in the media, the publication of survivors’ accounts and the debates sparked by films such as *Chhapaak* make the lack of academic (and especially criminological) engagement even more curious. Shokrollahi (2017) remarks that little, if any, criminological contribution has been made to the research on acid attacks. Throughout this book, we consider some of the challenges faced in researching acid attacks; arguably, these stumbling blocks offer good reason for the paucity of attention that criminologists have devoted to the subject area. However, other strands of criminological research—for example, the literature on the carrying and use of weapons such as guns and knives (see Brennan 2017, 2019)—are also helpful when researching acid attacks. Consequently, we apply many of these different perspectives to acid throwing throughout this book.

The remainder of this introduction outlines the background to the study of acid attacks in three sections. First, we consider how acid attacks might be defined. Second, we reflect on historical perspectives related to acid attacks and note how the use of corrosives in crime events is not merely a contemporary phenomenon. Third, consideration is given to the extent of the problem across the globe and the problem of measurement. In the final section, we present an overview of the structure of this book.

## DEFINING ACID ATTACKS AND CORROSIVE SUBSTANCE CRIME

Several labels have been used to describe the phenomenon that in the contemporary world has commonly become known as acid attacks—including acid violence, acid throwing, corrosive crime, noxious substance attack, vitriol attack, vitriolage, burns violence and chemical attacks. The term vitriolic attacks stems from ‘vitriol’ (a sulphuric acid-based substance used in the treatment of precious metals), a commonly used historical term for the act of throwing acid (Watson 2017a, b), though acid attack/throwing/violence, corrosive crime and chemical attack are more common contemporary labels. Kalantry and Kestenbaum (2011: p. 1) note that acid violence involves ‘intentional acts of violence in which

perpetrators throw, spray, or pour acid onto victims' faces or bodies'. Others, such as Siddika and Baruah (2018), have remarked that in such cases, acid is thrown intentionally at another human being in order to disfigure or kill. Some (see, for example, Mannon et al. 2007; Tan et al. 2015) suggest that the intention is not to kill the victim but to result in permanent disfigurement. Commonly, acid violence has been identified as a particular problem within the developing world or within low- and middle-income countries (LMIC) and has been linked to wider societal problems related to gender inequality, often leading to its discussion within the broader context of violence against women (Chowdhury 2011; ActionAid 2017). In such contexts, it has been argued that 'intent to disfigure' in order to spoil the life chances and marriage prospects of females is the key intent, rather than 'intent to kill'.

Interestingly, Milton et al. (2010) refer to the concept of 'chemical assault'. This label helpfully recognises that a range of substances can be employed to attack another human being. While the use of acid—in particular, sulphuric, hydrochloric or nitric acid—is common, attackers often use other corrosives such as strong alkalis (e.g. caustic soda or lye) (Mannon et al. 2007; Tan et al. 2015). This phenomenon has been widely recognised in the development of acid laws in countries such as India and Pakistan that refer to corrosive substance crime (rather than only the use of acid) and in the UK where the National Police Chiefs Council define such crimes as:

All notifiable violence against the person and robbery involving the throwing, spraying or pouring of acid or a similarly corrosive substance onto the body of another with the intention to disfigure, torture, kill or otherwise incapacitate for criminal purposes. Acid or corrosive substances are defined as those that cause visible destruction and/or permanent change in human skin tissue at the site of contact.<sup>1</sup>

However, confusion often arises about the exact nature of substances used in corrosive crimes and the type of damage they can cause. Across the media, the term 'acid' frequently represents any form of corrosive employed in a crime. For example, the following headline labels use of ammonia as an acid attack:

<sup>1</sup> This definition was supplied via the UK NPCC National Working Group on Corrosive Substance Crime—See Hopkins et al. (2021).



Man, 29, is injured after being sprayed with ‘ammonia’ in attack on busy London street in capital’s SECOND such ‘acid attack’ of the day. (*Daily Mail* 2018)

As Randleman and Stöppler (n.d.) note, the acidity or alkalinity of a substance, called the power of hydrogen (pH) scale, is measured on a scale of 1–14, with 7 indicating a neutral substance. Substances having pH values less than 7 are acids (such as sulphuric acid, sulphurous acid, hydrochloric acid, nitric acid, acetic acid, chromic acid and hydrofluoric acid). Those with numbers higher than 7 are alkaline (such as ammonia, lye, potassium hydroxide, magnesium and lime). The higher or lower the number, the more acidic or basic a substance is and the more damage it can cause to the eyes and human skin. Confusion as to the exact nature of a substance used in an attack might be understandable before a thorough medical examination has been conducted and the difference between acid and ammonia may have little consequence for the media (as an unpleasant corrosive substance attack has occurred). However, while knowing the exact nature of a substance is vital in terms of medical treatment, such information also has implications for potential criminal justice sanctions and crime prevention. (Chapter 6 on prevention revisits this topic.)

### THE USE OF CORROSIVES IN CRIME: HISTORICAL PERSPECTIVES

The recent upsurge of interest in acid attacks on the part of the global media would suggest that this form of violence is a relatively new phenomenon. However, acid attacks have a long history, thought to date back to at least the sixteenth century (Tan et al. 2015). Historical records document cases of vitriolic attacks where vitriol was thrown onto a victim, usually as a crime of passion. Tan et al. (2015) describe an increase in these attacks in sixteenth-century France after the introduction of vitriol to Europe. On this topic, *National Review* (1892: p. 423) reports, ‘A woman who throws vitriol upon her lover—the practice is common in Paris’.

The widespread occurrence of vitriol throwing in 1870s France led to the creation of a new verb—vitrioler—to burn with acid (Watson 2017a: p. 110). Similar cases were widely reported in the UK (Rampen 2017) and the US from the eighteenth to mid-twentieth centuries, when sulphuric acid was mass-manufactured, easily available and unregulated

(Yousaf and Purkayastha 2016). Watson (2017a: p. 108) mentions ‘the distinctive form of assault known as vitriol throwing, which peaked in England between 1840 and 1940’. Additionally, the Indian subcontinent shares a long history of acid violence, as well as the use of burning as a ‘legitimate’ form of ‘punishment’. Faga et al. (2000) describe the historical burning of a wife by her husband, traditionally by way of pouring and lighting kerosene, but increasingly with the use of acids. Shah (2009) also details the long history of such practices in rural Pakistan, where a husband’s choice to punish his wife in this way was seen as acceptable.

Numerous accounts report vitriol throwing being used as a form of industrial protest. For example, in ‘An Inquiry into the Origin, Progress, and results of the Strike of the Operative Cotton Spinners of Preston from October, 1836, to February, 1837’ (*Quarterly Review* 1859), vitriol throwing is mentioned as one form of criminal attack directed towards both masters and workmen in England. An article from *Fraser’s Magazine* titled ‘On the Consolidation of Police Force and the Prevention of Crime’ (Chadwick 1868), discusses vitriol throwing as a common act of violence by trade unionists against masters in both Norwich and Glasgow. However, the use of acid was apparently not only present in industrial protests in England. A special correspondents article from the United States published in 1891 reports that arrests were made in connection with the vitriol throwing at Messrs Billet and Grünbaum’s factory in New York City. As cloakmakers went on strike, their leader (Barondess) was accused of issuing orders to his followers to use vitriol (*The Times* 1891: p. 5).

Many contemporary accounts of vitriol throwing tend to portray acid attacks as a crime of the lower classes—a street crime engaged in by common criminals. However, historical accounts point to use by those of the middle and upper classes. Watson (2017a) discusses accounts of use by French bourgeois and upper-class women; the case of Dr Horace Wells suggests that corrosives have also been used by the more educated middle classes. Renowned for discovering the anaesthetic properties of aether, Wells practised as a dentist between 1841 and 1845. In 1848, when living in New York, he became addicted to chloroform. Under its influence, he threw sulphuric acid over the clothing of two prostitutes in the street. After he was sent to prison for the crime, on realising what he had done, he committed suicide by severing an artery with a razor, using chloroform as an anaesthetic (*U.S. Provincial Medical & Surgical Journal* 1848).

The perception of vitriol throwing was that it was a crime committed mainly by women. Indeed, Blackham's social commentary of 1936 titled 'Woman in Honour and Dishonour' calls vitriol throwing 'a particularly cruel crime which is almost exclusively confined to females' (p. 146). However, Watson (2017b) contests this notion with an analysis of vitriol throwing between 1795 and 1975, which appears to be evenly split between male and female perpetrators. That said, the publicity for cases of vitriol throwing also led to concerns over both a moral decline and the ease of access to acid. An article from the *Saturday Review* (1884) titled 'The Sale of Poisons' shows that the laws regulating the sales of poisons were rarely observed and concerns were expressed over the ease with which sulphuric acid was obtained, the destructive nature of its use and the regularity of vitriol throwing. Furthermore, an article largely based on the opinions of an Old Bailey judge laments the recrudescence of this terrible crime (vitriol throwing), reporting the judge as stating, 'It is the crime of the Apache of Paris (Parisian street gangs), who is said to go about with a dagger in one pocket and a bottle of vitriol in the other'. The judge is further quoted as saying, 'I do not know if it is an aftermath of the war, or a change in human nature, but many people nowadays, when they have a grievance, resort to lethal weapons' (*Daily Mail* 1924: p. 10).

While vitriol throwing received significant coverage in the press throughout the nineteenth century, the phenomenon also found its way into the public consciousness through literature. In the late nineteenth century, vitriol throwing was mentioned in both George Gissing's 'The Nether World' (1889: p. 242) and Arthur Conan Doyle's 'Sherlock Holmes: The Adventure of the Blue Carbuncle' (1892: p. 23). Neither did the issue of vitriol throwing escape verse. The satirical publication *Fun*, which was available in the UK between 1861 and 1901, published a poem in 1888 entitled 'British Savages' in which vitriol throwing was mentioned. This allusion was possibly an indication of the widespread concern and acknowledgement of vitriol throwing as a key social problem of the era. As the following extract, from the last verse of a poem, illustrates, vitriolers were considered 'scum' and 'brutes'.

These weapons – and vitriol, even – to buy!  
Once caught, all such scum with the lash should be cowed –  
The garrotter was wont at the nine-tails to cry.  
Sentimentalists long wished the lash were subdued

But now that our brutes daily seek human life,  
 E'en these faddists mayn't weep if we lash all the brood  
 Who dare buy vitriol-bottle, revolver, and knife!

## ACID ATTACKS AND CORROSIVE CRIME AS A CONTEMPORARY INTERNATIONAL CRIME PROBLEM

This brief introduction makes clear that acid attacks are not a new phenomenon. However, attacks continue to occur in many countries across the globe, leading to significant physical and emotional harm to survivors and their families. In an attempt to highlight the harm caused by acid attacks, NGOs such as Acid Survivors' Trust International (ASTI) and Acid Survivors' Foundation (ASF) have emerged to support survivors, pressure governments into action and monitor the numbers of attacks. However, a lack of understanding of the extent of corrosive substance crime persists, and accurate measurement is a particular challenge (Haque and Ahsan 2014). While some international literature provides estimates of the extent of acid attacks, particularly in South Asian countries (e.g. Kalantry and Kestenbaum 2011; ASTI 2015), the likely under-reporting of crimes involving corrosives is a significant problem, along with the lack of any recording at all in some countries. Even where attacks are recorded, understanding the types of corrosives used and even the most basic details about the attack can be challenging (ASTI 2015).

While most countries across the globe have no requirement to record an acid attack as a separate category from any other weapons-based or violent crime, NGOs such as ASTI have made significant efforts to obtain more accurate assessments of the number of attacks. In turn, the governments of many countries have endeavoured to improve recording practices. However, little published data is available on the numbers of acid attacks. Table 1.1 outlines current data across countries where some country-specific numbers have been published.

Possibly the best estimates of numbers of attacks can be found in the UK and India. In the UK, initial national estimates were collected through two voluntary data collection exercises run by the National Police Chiefs Council. These endeavours invited all 43 English and Welsh police forces to return data on the numbers of crimes involving corrosives for six months, November 2016–April 2017, and again for the three

**Table 1.1** Numbers of acid attacks/corrosive crimes—international comparisons from countries where data are available

<i>Country</i>	<i>What data are available</i>	<i>Estimate of numbers of attacks</i>
<i>United Kingdom</i>	Home Office Corrosive Substance Crime Police voluntary crime data collection exercises—records all corrosive substance crime across England/Wales (see Hopkins et al. 2021) Crime in England & Wales (ONS 2020)	– 408 cases/6 months to April 2017. <sup>a</sup> Estimates of around 800 per year (England and Wales only) – 200 recorded October 2017 to December 2017: estimate of 800 nationally per year (England and Wales only)  619 violence against the person and robbery offences involving a corrosive substance in England & Wales
<i>India</i>	Crime in India National Crime Records: under Indian Penal Code, records acid attacks (see National Crime Records Bureau 2018)	2016—223 attacks/60 attempts 2017—244 attacks/65 attempts 2018—228 attacks/59 attempts
<i>Pakistan</i>	ASF in Pakistan publish attack figures for 2014–2016; ASTI (n.d.) publish some data for Pakistan	ASF reported 2014—153 attacks/210 victims; 2015—69 attacks/101 victims and 2016, 73 attacks/103 victims. In 2018, there were 57 attacks (with 80 victims) in (ASTI, n.d.)
<i>Bangladesh</i>	ASF (2020) in Bangladesh publish estimates	Bangladesh: 400 in 2002—around 100 per year now. ASF Bangladesh (2020) recorded 3,422 acid attacks in Bangladesh between 1999 and 2020
<i>Colombia</i>	ASTI (n.d.) publish some data for Colombia	Estimates suggest an average of 100 attacks per year
<i>Uganda</i>	United Nations Trust Foundation data published through ASTI (n.d.)	382 attacks between 1985 & 2011. Estimates of around 35 attacks per year at present
<i>Italy</i>	ASTI (n.d.) publish some data for Italy	27 registered assaults in 2016, compared with eight in 2013
<i>Cambodia</i>	ASTI (n.d.) publish some data for Pakistan	40 attacks per year—this was in 2000

<sup>a</sup>data collected for 39 of the 43 England/Wales police forces