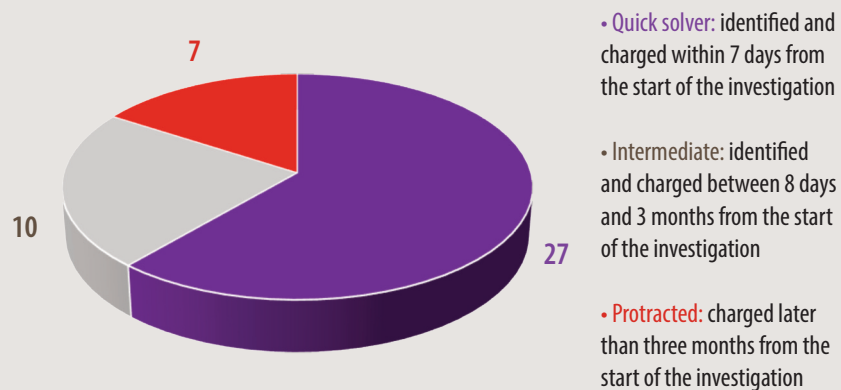


# Research Insight: The Role of Forensic Sciences and Technologies (FSTs) in Homicide Investigation in Britain

## TRAJECTORIES OF HOMICIDE INVESTIGATIONS

Criminologists have proposed two broad categories of homicide that affect the solvability of cases e.g. 'self-solvers' and 'whodunnits' (see Innes, 2003; Puckett and Lundman, 2003). These dichotomies tend to present cases as either 'easy' or 'hard' to solve. We start instead from a position of exploring the temporal characteristics of investigations themselves in order to explore whether and how case characteristics impact investigative outcomes. The 44 homicide investigations that we studied as part of the HIFS Project can be categorised as follows.

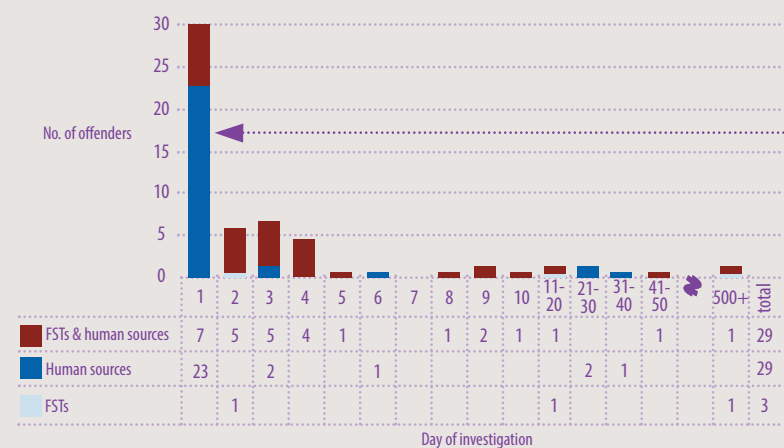
Chart 1: Number of homicide cases by trajectory type (n=44)



## WHEN AND TO WHAT EXTENT FSTs CONTRIBUTE TO HOMICIDE INVESTIGATIONS

Throughout the homicide investigation, detectives and other criminal justice actors use findings from a broad range of FSTs to inform their sense-making, decision-making and action-taking. The data below reveal the different types of intelligence and/or evidence used within 44 homicide investigations to identify and charge offenders.

Chart 2: Number of offenders identified by day of investigation and type of intelligence and/or evidence (n=61)



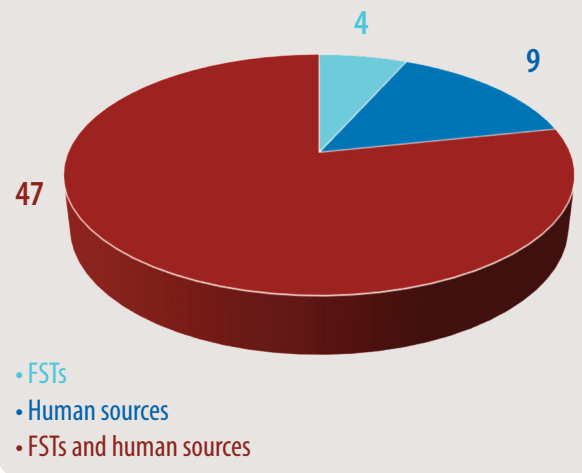
Within the first 24 hours of an investigation, human sources (particularly witness accounts) play a crucial role in identifying offenders

The value of investigative (craft) skills remain important in homicide investigations

Rarely are findings from FSTs used on their own; offenders are more likely to be identified and charged when findings from FSTs are used in conjunction with human sources

60% of offenders were charged within seven days and 80% were charged within 90 days. In only two cases were offenders charged within 24 hours of an incident and in one case, the offender was charged more than 31 years after the murder

Chart 3: Number of offenders charged by type of intelligence and/or evidence (n=60)



# WHICH FSTs CONTRIBUTE TO HOMICIDE INVESTIGATIONS

A broad range of FSTs were used to formally identify and charge offenders and in many instances these decisions relied on a combination of FSTs. Charts 4 and 5 below show in more detail which FSTs (whether used on their own or in conjunction with human sources) were used to identify and charge offenders.

Of all the FSTs used to identify or charge offenders, data gathered from CCTV and mobile phones plays the most significant role

Chart 4: Number of offenders identified by type of FST (n=32)

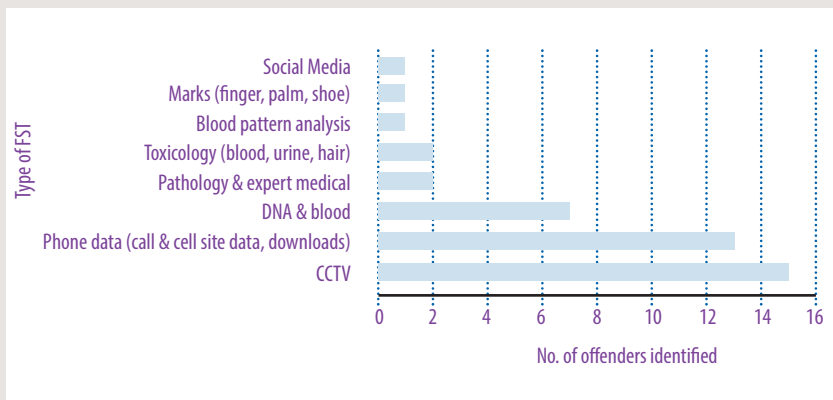
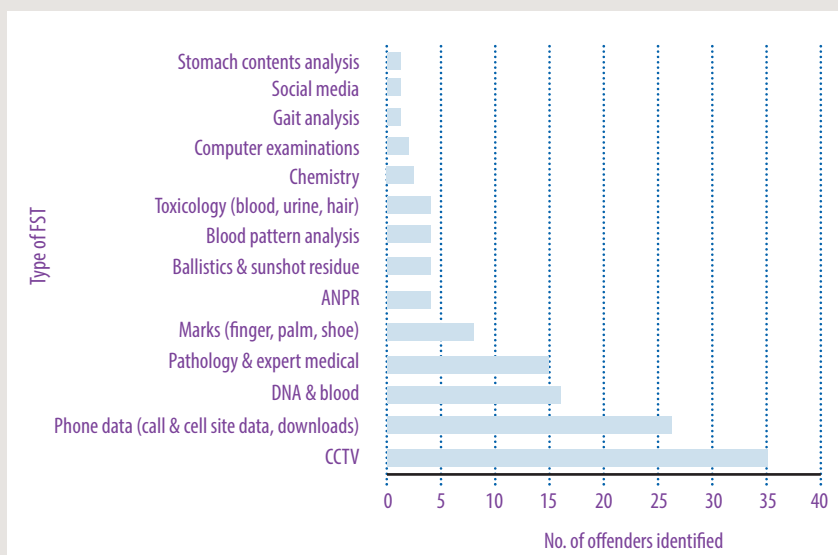


Chart 5: Number of offenders charged by type of FST (n=51)



## KEY FINDINGS

• 'Traditional' investigative methods utilising human sources, such as witness accounts, play a crucial role in identifying offenders, particularly when results from FSTs are not readily available to investigators



• It appears that certain types of cases may be more likely to have an intermediate or protracted investigative trajectory (e.g. toddler deaths)



• Data gathered from digital devices, such as CCTV and mobile phones, play a significant role in identifying offenders. This is likely because they are more accessible to investigators during the initial phase of enquiries



• Whether and how cases are solved is dependent upon a complex set of investigative actions and collaborations. Cases that, at first sight, appear complex, are sometimes resolved quickly whilst others that appear relatively straightforward, can become complex

• Rarely are findings from FSTs used on their own to identify or charge offenders - findings are often used in conjunction with human sources. Findings from FSTs may also be used to test human sources, particularly suspects' accounts



• Whilst some FSTs are utilised rarely, their findings may play a crucial role in the investigative trajectory. Further analysis is required to examine the 'routine' and 'exceptional' use of FSTs within homicide investigations