

Institution: Cardiff University		
Unit of Assessment: Allied Health Professions, Dentistry, Nursing and Pharmacy (3)		
Title of case study: Shaping UK and international strategies to reduce violent crime through policy and legislation		
Period when the underpinning research was undertaken: 2001 – 2017		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Professor Simon Moore Professor Jonathan Shepherd Dr Vaseekaran Sivarajasingam	Role(s) (e.g. job title): Professor Professor Reader	Period(s) employed by submitting HEI: 01/07/2003 – present 01/10/1991 – 31/12/2017 03/02/1997 – present
Period when the claimed impact occurred: August 2013 – July 2020		
Is this case study continued from a case study submitted in 2014? Yes		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Many violent crimes go unreported meaning the police cannot accurately monitor the prevalence of this type of crime or pinpoint where crime prevention is most needed. Cardiff researchers developed a unique multi-agency data-sharing framework for violence prevention, that uses hospital Accident and Emergency data, called 'The Cardiff Model'. Since 2014, Cardiff research resulted in: a) the wider use of 'Cardiff Model' data across the UK alongside new national crime prevention policies and legislation; and b) the expansion of 'The Cardiff Model' outside the UK (including in Jamaica, Australia and the USA). The World Health Organization also now recommends that 'The Cardiff Model' should be used as part of its strategy to prevent violence against children around the world.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Cardiff University's Violence and Society Research Group showed that between a half and two thirds of violent incidents requiring hospital treatment are not known to the police [3.1]. To address this problem, the Cardiff team undertook research as follows:</p> <p>2.1 Development of 'The Cardiff Model'</p> <p>Cardiff researchers developed a robust framework designed to collect and share data from Accident and Emergency (A&E) departments, combining these data with police intelligence to understand the prevalence of violent crime and inform strategies to reduce it [3.2]. With funding from the UK Government's Welsh Office and from the Home Office Policing Fund [G3.1], and later recognised with the 2008 Stockholm Prize in Criminology and the 2009 Higher Education Queen's Anniversary Prize, the Cardiff team published their findings and research framework in 2004. This became known as 'The Cardiff Model' [3.3].</p> <p>'The Cardiff Model' consists of:</p> <ul style="list-style-type: none"> • monthly electronic capture of customised questionnaire data (including precise violence location, date/time, circumstance and use of weapons) from patients attending Emergency Units as victims of violence; • anonymisation and sharing of the above data through the Local Authority's Community Safety Partnership or Violence Reduction Unit; • combining all Police and Emergency Unit data to inform violence prevention initiatives across multiple agencies (e.g. police, social workers, judiciary and schools). <p>2.2 Evidence of the Cardiff Model's potential for harm reduction and cost savings</p> <p>In 2004 Cardiff research showed that, where 'The Cardiff Model' framework for information capture, data sharing and crime prevention had been implemented, the Emergency Unit in Cardiff experienced year on year decreases (4% per annum) in attendance due to violent</p>		

crime, despite 1% annual increases in the city's population [3.3]. In addition to ongoing evaluation of 'The Cardiff Model' within Cardiff, the team also compared Cardiff (as the intervention city) with 14 UK comparison control cities designated as most similar by the UK Home Office. The researchers found that violent crime (measured in terms of hospital admissions and violence recorded by the police) was significantly reduced in Cardiff (a relative fall of 42%) compared to the control cities [3.4].

Since 2010, the Cardiff team has been collecting new data on violence-related injuries in emergency departments in Wales and England [G3.2]. The data comes from the National Violence Surveillance Network which consists of 164 NHS A&E departments, minor injury centres and walk-in centres [3.5]. This data enabled the Cardiff team to further evaluate the impact of 'The Cardiff Model'. They demonstrated that, from an emergency department perspective, violence in England and Wales decreased substantially between 2010 and 2017 when those departments used 'The Cardiff Model'. This was especially true amongst children and adolescents [3.5]. The 2017 National Violence Surveillance Network report showed there had been a 10% decrease (amounting to 21,000 fewer) in violence-related A&E attendances in 2016 compared with 2015, and 124,000 fewer compared with 2010. Further research by the Cardiff team showed that the implementation of Cardiff's data-sharing approach led to savings in Cardiff's health, social, and criminal justice costs of ca. £5M per annum (2003 to 2006) with a £6.9M saving in 2007 [3.6].

Evidence of the effectiveness of the Cardiff Model in reducing violent crime led to its widespread adoption in the UK and internationally, as detailed in Section 4.

3. References to the research (indicative maximum of six references)

[3.1] Sutherland, I., Sivarajasingham, V. and Shepherd, J.P. Recording of community violence by medical and police services. *Inj. Prev.* (2002) 8: 246-247. DOI:10.1136/ip.8.3.246

[3.2] Shepherd, J.P. Criminal deterrence as a public health strategy. *The Lancet* (2001) 358: 1717-1722. DOI 10.1016/S0140-6736(01)06716-2

[3.3] Warburton, A.L. and Shepherd, J.P. Development, utilisation, and importance of accident and emergency department derived assault data in violence management. *Emerg. Med. J.* (2004) 21: 473-477. <http://emj.bmj.com/content/21/4/473.full>

[3.4] Florence, C., Shepherd, J.P., Brennan, I. and Simon, T. Effectiveness of anonymised information sharing and use in health service, police and local government partnership for preventing violence related injury: experimental study and time series analysis. *BMJ* (2011) 342: d3313. DOI:10.1136/bmj.d3313

[3.5] Sivarajasingam V., Read S., Svobodova M., Wight L. and Shepherd J. P. Injury resulting from targeted violence: An emergency department perspective. *Criminal Behaviour and Mental Health* (2018) 28:295-308. DOI: 10.1002/cbm.2066

[3.6] Florence, C., Shepherd, J.P., Brennan, I. and Simon, T. An economic evaluation of anonymised information sharing in a partnership between health services, police and local government for preventing violence-related injury. *Inj. Prev.* (2014) 20(2): 108-14. DOI:10.1136/injuryprev-2012-040622

Selected grants:

[G3.1] Shepherd J.P., Watt K., Newcombe R., 'Randomised Controlled Trial of a Brief Alcohol Intervention in a Judicial Setting', UK Government (Welsh Office, the Home Office), 2002-2005, £186,000

[G3.2] Moore, S. (PI), 'Randomised controlled trial of All-Wales licensed premises intervention to reduce alcohol-related violence', National Institute for Health Research, 01/04/2012-28/02/2018, £652,159

4. Details of the impact (indicative maximum 750 words)

A REF 2014 impact case study outlined that the College of Emergency Medicine had published and disseminated Clinical Guidelines to its members recommending adoption of

'The Cardiff Model'. The case study also highlighted that, in 2013, an independent audit had shown one-third of UK Emergency Units and Community Safety Partnerships were sharing information at the level set out in the College of Emergency Medicine guidelines, backed by the Department of Health. Within the REF 2021 period, Cardiff's research led to the additional substantial and widespread impacts:

4.1. Extended use of Cardiff Model data across the UK to inform new policy and legislation

As detailed in Section 2, the sharing of specific information from A&E departments with local authorities is a key tenet of 'The Cardiff Model'. In 2014, the Health and Social Care Information Centre published a new formal '*Standard on Information Sharing to Tackle Violence*' (ISTV) based on Cardiff's research (ISB 1594 Amd 30/2012) [5.1]. The UK government stated that the "*ISTV is part of the Government's commitment to reduce knife and gun crime [...] The Information Standard is being introduced following work by the Cardiff Violence Prevention Programme*" [5.1].

In England, Cardiff's ISTV has since been implemented via the 2016 Standard NHS Contract which mandates that all NHS Trusts with A&E departments collect and share specified anonymous data on violence including the time, date and precise location of an incident, plus the means of assault. Under the heading 'National requirements reported locally', the 2016 Standard NHS Contract gives instruction to: "*Report and provide monthly data and detailed information relating to violence-related injury resulting in treatment being sought from Staff in A&E departments, urgent care and walk-in centres to the local community safety partnership and the relevant police force, in accordance with applicable Guidance (Information Sharing to Tackle Violence (ISTV) Initial Standard Specification)*" [5.2, p.60]. In addition, the Cardiff ISTV is now used in all 29 London Emergency Departments as part of the London Information Sharing to Tackle Violence programme which is co-ordinated by the Mayor's Office for Policing and Crime [5.3, p.64, 5.4].

The ISTV has also been incorporated into the new Emergency Care Data Set, which is designed to better understand how and why people attend A&E Departments. ISTV was implemented across all emergency departments in England from 2017 [5.5a]. According to the NHS digital website, the Emergency Care Data Set allows "*support for injury surveillance, such that it will be possible to identify patterns that may be amenable to targeted interventions and improved public health*" [5.5b]. This is possible because the Emergency Care Data Set incorporates 'Cardiff Model' data to collect and share information about violent crime in emergency departments.

As such, 'The Cardiff Model' has led to significant changes across the UK aligned to reducing violent crime, with the adoption of the ISTV also leading to the following two additional UK policy and legislation impacts:

a. The 'Serious violence strategy' which includes £35M UK Government investment into Violence Reduction Units

In 2018, the UK Government released its 'Serious Violence Strategy' (as part of its wider 'Crime Prevention Strategy') which uses 'Cardiff Model' data in the form of the ISTV. This strategy includes a section entitled '*Supporting local initiatives to share information between hospitals and local police to tackle violence*' which states, "*the Government has been actively supporting and leading ISTV including funding a network of Violence Reduction Nurses to develop data collection and information sharing*" [5.5a, p.73]. As a result of the 'Serious Violence Strategy', in October 2019, the Government announced £35M for the funding of 18 new Violence Reduction Units in the police force areas most affected by serious violence [5.6]. By combining Cardiff's ISTV dataset with police data, the Violence Reduction Units target interventions at specific times and street locations.

b. The Serious Violence Bill

In 2019 the UK Government carried out an impact assessment which recommended that a duty to tackle serious violence should be implemented across the UK. The recommendation was based on 'The Cardiff Model' which was cited extensively throughout the Impact

Assessment [5.7]. The Impact Assessment predicted that if 'The Cardiff Model' was implemented across all available Community Safety Partnerships in the UK (not already using a violence reduction strategy, n=223), and if only 5% of these partnerships were as successful as the original Cardiff pilot, then the cost would be £281M over 10 years, with a benefit of £657M in present value terms over the 10 years, and a reduction of 20 homicides per year.

This Cardiff evidenced impact assessment formed part of a consultation that led to the Government response stating *"the proposed duty will complement and assist the Violence Reduction Units in their aim of preventing and tackling serious violence"* [5.7b]. This new public health duty to tackle serious violence was contained within the Serious Violence Bill 2019 and was approved by MPs in the December 2019 Queen's Speech [5.8, p.69].

4.2. Expansion of 'The Cardiff Model' outside of the UK

'The Cardiff Model' is now being implemented in other countries, including in Kingston, Jamaica, via the Kingston Violence Prevention Board [5.9a], and in Australia, where the National Health and Medical Research Council funded a replication of the Cardiff Model in Canberra, Melbourne and Sydney [5.9b]. In the United States of America, 'The Cardiff Model' has been implemented in Atlanta, Philadelphia and Milwaukee, supported by the Centre for Disease Control and Prevention which is the federal public health body in the United States (equivalent to Public Health England and Public Health Wales). The Centre for Disease Control and Prevention has published a training toolkit to support the successful adoption of 'The Cardiff Model' across the United States [5.10]. The tool kit states: *"The Cardiff Violence Prevention Model provides a way for communities to gain a clearer picture about where violence is occurring by combining and mapping both hospital and police data on violence. But more than just an approach to map and understand violence, the Cardiff Model provides a straightforward framework for hospitals, law enforcement agencies, public health agencies, community groups, and others interested in violence prevention to work together and develop collaborative violence prevention strategies"* [5.10].

In 2016, the World Health Organization (WHO) published a report entitled *'INSPIRE; Seven strategies for ending violence against children'*. One of these strategies advocates for safe environments where children and young people gather, with the WHO's report stating that violence can be reduced if prevention efforts are systematically focused on 'hotspots'. It explicitly highlights 'The Cardiff Model' within the report [5.11, p.44]. The report aims to inform WHO member states on how to best tackle violence against children, publicly advocating for the worldwide use of 'The Cardiff Model' as a mechanism to achieve this goal.

In summary, Cardiff's robust model of information sharing has significantly informed and influenced UK national crime prevention policy and has been adopted internationally to reduce violent crime in areas with a high prevalence of violence, with a demonstrable impact in violent crime.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[5.1] UK Government news story on the set up of ISTV and its link to Cardiff (19 September 2014)

[5.2] NHS Standard Contract 2016/17 Particulars (Full Length)

[5.3] Mayor of London 'The London Knife Crime Strategy', June 2017

[5.4] Mayor of London webpage 'Information Sharing to Tackle Violence'

[5.5] a) HM Government (2018) 'Serious Violence Strategy' b) NHS Digital Emergency Care Dataset homepage

[5.6] UK Government news story on the announcement of the £35m funding of 18 Violence Reduction Units (12 August 2019)

[5.7] Serious Violence: a new legal duty to support multiagency action a) Consultation webpage b) Impact assessment c) Consultation document d) Government response

[5.8] The Queen's Speech (December 2019)

[5.9] Evidence of international use of the model **a)** 'Police Urged to Use Technology to Solve crime', The Gleaner, 2 September 2020 **b)** 'Cardiff Uni anti-crime model rolled out in Australia' BBC News, 15 March 2016

[5.10] Centers for Disease Control and Prevention (2018) Cardiff Model Toolkit

[5.11] World Health Organization's INSPIRE strategy