

## THE CARDIFF MODEL FOR VIOLENCE PREVENTION

**The Cardiff Model (also known as ISTV) was pioneered by Professor Jonathan Shepherd and is the use of specific Emergency Department (ED) and police data by city violence prevention boards to prevent violence.**

Having established that at least half of violent incidents which result in ED treatment go unreported, Professor Shepherd developed the Model which was trialled in Cardiff and quickly adopted by other cities in the UK - with significant results.

In 2000, there were over 80 violence related ED attendances per week in Cardiff. By 2024, this had decreased to 30-35 per week.

### Partnership working is essential

In 1997, Professor Shepherd convened Cardiff's violence prevention board to establish a multi-agency approach to generate accountability and prevent silo working.

Cardiff's violence prevention board has been chaired by ED consultant, Dr James Dunn, since 2017. The key agencies involved are the NHS (emergency medicine and public health), the local authority, the police, the street pastors, and education. Importantly, the board is made up of executives – senior people with the authority to make changes. For example, to change police patrol routes, change alcohol licensing and address violence in schools. The board also includes a lead analyst who summarises the data for the board, a representative of the city's licensees who can relay the board's decisions to the licensees in the city, and a person to liaise with the local Police and Crime Commissioner.

Developed in Cardiff, launched in 1997 to fill gaps in police knowledge by gathering information in hospitals from people injured in violence

The Cardiff Model relies on data on time and date of each violent incident, the precise location of the violence in each case (named street location, named school etc, weapon used, number of assailants in each case, and the relationship between the injured person and the assailant(s)

The data is anonymised before it is shared with external agencies

A violence prevention board brings police, health, local authorities and the voluntary sector together to decide on and implement violence prevention actions

### Necessary functions to implement the Cardiff Model/ISTV

 Data recording - by receptionists and triage nurses

 Data anonymisation and sharing - by NHS Trusts

 Combination of Cardiff Model (ISTV) data with police data and summarising for the board - by the lead analyst

 Choosing and implementing prevention interventions - by the violence prevention board

Violence prevention boards serve whole cities, not just night time economies. They help prevent all types of violence – including domestic violence, violence in parks, schools, workplaces, licensed premises, street locations etc. – and violence in which people of all ages and sexes are injured.

To work effectively, data needs to be consistently recorded, primarily by ED receptionists who are often the first point of contact with people who attend the department having been injured.

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It's sometimes not possible to record every data item – because injured people sometimes don't know where they were injured, for example.

The Cardiff Model relies only on data on time and date of each violent incident, the precise location of the violence in each case (named street location, named school etc.), the weapon used, numbers of violent assailants in each case, and the relationship between the injured person and their assailant(s) in each case.

### Examples of effective interventions

A row of shops in South Cardiff was identified from ED data as a violent hotspot. Through partnership working, a CCTV camera was installed and violence at that location stopped.

On a separate occasion it was identified that a number of violent attacks were happening in the gardens around Cardiff Castle. Action was taken to cut down shrubbery which increased natural surveillance and dramatically reduced incidents at that location.

ISTV data is being used effectively to inform policing and disrupt drug supply and gang activity.

ED data identifies licensed premises where violence occurs and this facilitates prevention action, such as new conditions on licensed premises and license revocation.

ISTV data is also informing on situational interventions, such as park redesign, school-based child safeguarding and pedestrianisation of entertainment streets.

The [Youth Endowment Fund](#) and Centre for Crime Reduction toolkits are the most authoritative source of effective violence prevention interventions. Professor Shepherd says, 'violence prevention boards should choose prevention actions from these'.

### Is this approach effective?

Based on controlled trials published in the British Medical Journal (BMJ) in 2011 – as soon as the Cardiff Model was implemented in full in Cardiff, violence began to fall and was sustained across four years of the study.

During this time, violence began to rise in the other 30 cities designated comparison sites as most similar by the Home Office.

Hospital admissions fell in the intervention cities and rose in the comparison cities

A systemic review led by Deakin University concluded that: "All studies attempting to measure intervention effectiveness reported substantial reductions of assaults and ED attendances post-intervention, with one reporting no change".

Source: Droste et al (2014),  
Emergency Medicine Australasia. doi: 10.1111/1742-6723.12247

A meta-analysis led by the University of Cape Town concluded that: "...the introduction of (the Cardiff Model) showed significant results in reducing assault (incidence rate ratio = 0.80)

Source: Jabar et al (2019). BMJ Open. doi: 10.1136/bmjopen-2018-027977

### Is ISTV worth the time and investment?

The annual cost of intervention is approximately £5,000 per year to cover the costs of meetings, and prevention actions.

That outlay is completely overwhelmed by the annual cost of woundings avoided - nearly £789,000 per year.

**For every £1 spent, £82 is saved.**

Source: Florence et al. Injury Prevention 2014

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## Costs & Benefits

In 2019 a Home Office Impact Assessment found substantial savings to be gained by implementing the Cardiff Model/ISTV

**Saving each Local Authority £2.7m per annum**

If implemented in just 5% of Local Authority areas cost savings are estimated to be £858 million over 10 years.

And that is just 5% of areas.

Source: UK Home Office, Introducing Public Health Measures IA 2019 (IA No: HO0345)

When you look at the figures, think what could be achieved nationally if we were all to embrace the Cardiff Model/ISTV. The results would be:

- Earlier and more frequent police intervention with huge public health benefits
- Identification of weapon trends to inform weapon control
- Safer parks, schools, pedestrian areas
- The prevention of repeat victimisation in domestic violence

### Steps in UK implementation

**1998** - Crime and Disorder Act created Community Safety Partnerships

**2014** - Cardiff Model (ISTV) data set published by NHS Digital

**2017** - Data items included in the Emergency Care Data Set

**2022** - Statutory Serious Violence Duty for specific authorities to collaborate to prevent violence

**2023** - Free text field introduced for recording precise violence location

**2024** - Introduction of Standard Operating Procedure for data recording in EDs

The Network is supported by the US Centres for Disease Control and Prevention and by the American Public Health Association, and now includes 20 US cities and rising.

Uptake is still not universal - we are getting there and a huge step forward would be for ISTV to be embraced by every ED in the UK.

Our thanks go to Professor Shepherd for sharing this information and spearheading a model which is helping to save lives, and prevent so many horrific and disfiguring injuries.

### Cardiff Model essentials

- ISTV data items with questions embedded in ED software.
- ED receptionists and triage nurses able to ask people injured for this information and record it routinely and electronically.
- Hospital IT units able to anonymise and share these data with authorities responsible for discharging the statutory duty to collaborate to prevent violence.
- Analyst(s) associated with the local Community Safety Partnership (CSP) combine these data with police data and summarise and map them for the local violence prevention board.
- City/local authority area violence prevention boards comprising police, local government, health (including a lead Emergency Medicine consultant) and education executives which meets at least once a quarter to choose and implement effective violence prevention interventions

**Be an ISTV Ambassador in your ED!**

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