Example Strategies to Overcome Cardiff Model Challenges

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Introduction

Across the U.S., sites have begun to plan for or are currently implementing the Cardiff Model for Violence Prevention (the "Cardiff Model") to varying degrees. These sites have developed strategies to overcome challenges that are unique to the U.S. context and their own communities. Though each site has approached planning and implementation differently given their unique circumstances, a common thread across sites is persistence and ingenuity to try and overcome the challenges they face. The examples below highlight the strategies that sites in the U.S. have used to overcome challenges and are intended to celebrate and share learnings with others who are planning for or currently implementing the Cardiff Model in their own communities.

Highlighted Strategies

Engaging a state or local public health agency as an honest broker of data

Challenge:

Sites implementing the Cardiff Model in the U.S. must navigate how to share data in compliance with both national- and state-level privacy regulations, particularly compliance with the Health Insurance Portability and Accountability Act (HIPAA).

When navigating HIPAA compliance, the Atlanta, GA area site consulted with CDC and the U.S. Department of Health and Human Services Office for Civil Rights to determine how to best share Cardiff Model data in a compliant manner. Based upon those discussions, the site recruited its state health agency, Georgia Department of Public Health (GA DPH), to share and house Cardiff Model data.

Strategy:

The Atlanta, GA site brought on GA DPH to serve as the honest broker of Cardiff Model data for the site. With its extensive experience as a neutral party collecting data from many hospitals in compliance with HIPAA, GA DPH is well-positioned to serve as an honest broker for the Atlanta site as well as other Cardiff Model sites in Georgia.

Takeaways:

Identifying a state or local public health department to serve as the honest broker of data is one strategy for enabling secure, effective, and compliant data-sharing practices. Additional information on how sites can share data while remaining HIPAA compliant can be found in the Legal, Technical, and Financial Considerations section of the Cardiff Model Toolkit.

Collecting Cardiff Model data in hospitals using open-text electronic health record (EHR) fields

Challenge:

Collecting Cardiff Model data effectively and accurately without streamlined processes for noting the location of violent injuries can be difficult in emergency departments (EDs).

Strategy:

Several sites across the U.S., including Atlanta, GA, Milwaukee, WI, St. Louis, MO, and Albany, GA have integrated Cardiff Model fields into their EHRs and trained nurses to collect Cardiff Model data from ED patients.

Takeaways:

U.S. sites can recruit trauma centers to modify their EHRs to include Cardiff Model screenings and orient nurses to collecting voluntary location data from individuals who were victims of violence. This can help ensure that as many patients with violent injuries as possible are voluntarily screened, which helps Cardiff Model sites learn more about the specifics and location of violence.

Exploring innovative technologies for data collection

Challenge:

Data collection, analysis, and mapping are often the most technical aspects of Cardiff Model implementation, requiring sites to consider patient privacy concerns, EHR system changes, and challenges with accurately identifying and recording locations.

Strategy:

Some U.S. Cardiff Model sites are leveraging innovative technologies, such as Artificial Intelligence and specialized mapping tools, to identify and map location data more effectively.

In 2022, the Las Vegas, NV site developed a Python code that uses Named Entity Recognition to siphon Cardiff Model data from a high volume of patient records without requiring EHR system changes or staff time.

A research team at American University also developed a tablet-based mapping tool to support Cardiff Model data collection and mapping. This tool displays a map of the site's city that is divided into smaller regions (cells), and patients can click on the cells to narrow the geographic area where the violent injury occurred. The mapping tool allows patients to share as little or as much location information as desired or known, addressing patient privacy concerns and spatial knowledge gaps.

Takeaways:

As technology evolves, sites become increasingly capable of overcoming implementation challenges and effectively processing Cardiff Model data. Innovative tools and technology may ultimately reduce burden on clinicians and translate to more effective, accurate, and privacy-sensitive data collection and sharing.

Addressing funding challenges by integrating the Cardiff Model with other public health programs and engaging university students

Challenge:

One of the primary challenges of implementing the Cardiff Model in U.S. cities is securing sustainable resources to support staff time to collect, analyze, map, and share data.

Strategy:

Several U.S. sites have strategically combined Cardiff Model data collection with other efforts, such as addressing opioid overdose and data science innovations, to help meet funding gaps. For example, some sites have integrated CDC Preventing Violence Affecting Young Lives grants and Department of Justice grants focused on opioid prevention with their Cardiff Model efforts. Las Vegas, NV used opioid funding that paid for several epidemiologists to collect and analyze data.

Additionally, some sites engage college and graduate-level students or interns to support data analysis, partner identification, and recruitment efforts to advance Cardiff Model implementation.

Takeaways:

Sites around the U.S. can integrate strategies to reduce costs or identify numerous potential sources of funds to build a mosaic of funding, resources, and capacity to implement the Cardiff Model.

Forming structured community-level violence prevention partnerships

Challenge:

A central component of the Cardiff Model is a structure to convene key partners. Without this structure, bringing the right decision-makers and partners together to move implementation of the Model forward in a coordinated manner can be difficult.

Strategy:

Several U.S. Cardiff Model sites have established structured partnerships or collaborated with existing partnerships to convene partners engaged in Cardiff Model planning in their communities. The metro-Atlanta site established the United States Injury Prevention Partnership, which has an official name, logo, and processes and procedures to legitimize and coordinate the group's efforts. Sites in Milwaukee and West Allis, WI, St. Louis, MO, and Las Vegas, NV, have also developed partnerships or collaborated with existing groups and coalitions to coordinate their Cardiff Model efforts across key sectors.

Takeaways:

Structured partnerships can be central to Cardiff Model implementation progress by bringing key voices to the table and fostering consistent collaboration (e.g., regular meetings). Formalizing these partnerships can bolster the credibility of these groups and inspire additional partners to join.

Additional Strategies

Cardiff Model Sites across the U.S. continue to adopt and explore additional strategies to promote successful implementation, some of which are tied directly to their Cardiff Model work and others that are adjacent to their implementations.

Leveraging open-source law enforcement data

The Las Vegas, NV Cardiff Model committee can easily access open-source law enforcement data without the need for a legal agreement. Sites can leverage open-source data to demonstrate disparities in hospital and law enforcement injury data, identify areas with high rates of violence, and engage relevant community members early.

Using data for local policy

In Lauderhill, FL, local legislation requires convenience store owners to inform the city's commission of ownership changes and if they place a high number of calls to law enforcement. Though not directly tied to the Cardiff Model, this approach serves as an example of a place-based policy approach to violence prevention. Sites can explore using hotspots identified in Cardiff Model data to inform decision makers' policy efforts.

Integrating community

Several U.S. sites have begun to closely engage with community partners to collaborate on violence prevention interventions informed by Cardiff Model data anaysis. For U.S. sites, this approach can be essential to integrating the perspectives of communites that will host place-based violence prevention interventions.

Piloting Cardiff Model data collection in pediatric trauma centers

Several U.S. Cardiff Model sites have seen greater engagement with pediatric hospital than adult trauma centers in collecting Cardiff Model data. Though the specific causes of this difference are unclear, new sites may consider piloting Cardiff Model data collection in pediatric hospitals before scaling the Model in additional hospitals.

Learn More

For more information on the Cardiff Model, please visit CDC's Cardiff Model website and review the Cardiff Model Toolkit.

If you're interested in learning more about and joining the Cardiff Model National Network – the hub for resources, support, and networking for groups and individuals interested in the Cardiff Model in the U.S. – please contact us-cardiff-ta@gaggle.mail to receive calendar invites for the National Network's bimonthly meetings, access the National Network's repository of Cardiff Model resources, or request technical assistance to connect with a Subject Matter Expert from the National Network.

Scan QR code to visit CDC's Cardiff Model Website