Health and Welfare in the Context of Home and Community-Based Services Part 1

Division of Long Term Services and Supports

Disabled and Elderly Health Programs Group

Center for Medicaid and CHIP Services

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Training Objectives

- This training is part one of a two-part presentation.
  - Part 1: Health and Welfare in the Context of Home and Community-Based Services
    - Discuss recommendations from OIG's 2016 Health and Welfare audits.
    - Discuss Health and Welfare related findings from CMS site visits.
    - Provide information on the use of data to trend incidents and create systemic interventions to ameliorate concerns.
  - Part 2: Health and Welfare: Predict, Align, and Prevent

    (to follow immediately after this session)

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Overview

- CMS will discuss:
  - Health and welfare provisions under 1915(c) of the Social Security Act
  - Recent OIG efforts and audit results regarding states' adherence to health and welfare requirements.
  - Additional areas of concern regarding health and welfare assurances in multiple states.
  - Strategies for building comprehensive incident management systems

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Background

Federal Regulations Guiding Health and Welfare

Health and Welfare in the Social Security Act § 1915(c)

- Under section 1915(c) of the Social Security Act, successful waivers must provide assurances to CMS that the state has necessary safeguards to protect the health and welfare of participants receiving services.
- Waiver authority also requires states to annually report the following to CMS:
  - Information on the impact of the waiver granted;
  - Types and amounts of medical assistance provided; and
  - **Information on the health and welfare of recipients.**

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Health and Welfare in 42 CFR § 441.302(a)

- 42 CFR § 441.302(a) defines the necessary safeguards that will protect the health and welfare of the individual.
- Safeguards outlined in 42 CFR § 441.302(a) include:
  - Adequate standards for all types of providers furnishing waiver services;
  - Assurance that providers are adequately certified or have met the state's licensure requirements to provide the services under the waiver;
  - Assurance that all facilities providing home and community-based services are compliant with state standards and meet the requirements of 45 CFR part 1397 for board and care facilities;
  - Assurance that the state will be able to meet the unique service needs of individuals that are among different target groups under a single waiver, by providing data on an annual basis in the quality section of the CMS-372(s) report; and
  - Assurance that services are provided in home and community-based settings, as specified in § 441.301(c)(4).

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2014 Revised § 1915(c) Waiver Guidance

- On March 12, 2014 CMS issued an Informational Bulletin on "Modifications to Quality Measurements and Reporting in 1915(c) Home and Community-Based Waivers". This document:
  - Revised the guidance on quality assurances related to health and welfare in recognition of the importance of tracking services to prevent future incidents of abuse, neglect, and exploitation;
  - Modified the assurance and sub-assurances related to health and welfare to allow for more extensive tracking of incidents "to benefit the individual receiving services by using data to prevent future incidents"; and
  - Established the following assurance: "The state demonstrates it has designed and implemented an effective system for assuring waiver participant health and welfare."[1]

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2014 Revised § 1915(c) Waiver Guidance – *Continued*

- The guidance also created the following four new sub-assurances that the state:
  - Demonstrate on an ongoing basis how it identifies, addresses, and seeks to prevent instances of abuse, neglect or exploitation, and unexplained death;
  - Demonstrate that an incident management system is in place and effectively resolves reported incidents and prevents further similar incidents to the extent possible;
  - Demonstrates that policies and procedures for the use of and prohibition of restrictive interventions (including restraints and seclusion) are followed; and
  - Establishes overall health care standards and monitors those standards based on the responsibility of the service provider as established in the approved waiver.

Incidents will happen…

- The goal must be to do everything we can to minimize preventable incidents from occurring, **and to address incidents as they occur.**

- A robust incident management system allows states to proactively respond to incidents and implement actions that reduce the risk and likelihood of future incidents.

- States have utilized different approaches to developing and implementing their incident management systems.

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Summary of HHS-OIG Report Findings

- In 2016, the U.S. Department of Health and Human Services Office of Inspector General (HHS-OIG) released several reports on their review of states' compliance with federal or state requirements regarding critical incident reporting.
- The HHS-OIG found that several states did not comply with federal waiver and state requirements for reporting and monitoring critical incidents involving HCBS waiver individuals. The findings included that: [2,3,4]
  - Critical incidents were not reported correctly;
  - Adequate training to identify appropriate action steps for reported critical incidents or reports of abuse or neglect was not provided to state staff;
  - Appropriate data sets to trend and track critical incidents were not accessible to staff; and
  - Critical incidents were not clearly defined, making it difficult to identify potential abuse or neglect.

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Summary of CMS Audit Findings

- In 2016, CMS conducted three audits based in part or in whole on concerns regarding health and welfare and negative media coverage on abuse, neglect or exploitation issues.
- CMS found that states have had challenges meeting their 1915(c) waiver assurances, similar to findings reported by the OIG.
  - In two cases, the tracking and trending of unusual incidents were not present for the incidents of concern.
  - In at least two of the states, the ability to staff at appropriate levels was identified as an issue.
- For more detail on the CMS audits and recommendations resulting from these site findings, refer to the HCBS Quality 201 training:
  - http://www.nasuad.org/sites/nasuad/files/Final%20Quality%20201.pdf
  - Please note that CMS is currently working with states and state groups to update the performance measures from the training cited above.

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CMS Site Visit Findings

- CMS findings generally indicated that the state had set up the right Quality Improvement System (QIS) in the approved waiver but that the state had difficulty adhering to the assurances as specified in the QIS in the waiver.
- In two of the cases in particular, the tracking and trending of Unusual Incidents were not present for the incidents that were of concern.
- In one of the cases, media coverage of critical incidents revealed statistics that were inconsistent with the state's 372 reports and Evidentiary Report.
- In at least two of the states the ability to staff at appropriate levels was identified as an issue.

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CMS Site Visit Findings & Recommendations

- The state should review the requirements set in the state's QIS in the approved waiver:
  - Annually when the 372 is prepared; and,
  - At the end of 3 years in the waiver cycle when the Evidentiary Report is prepared.
- States should look closely at incident reports and findings when a single provider renders both residential and day services.
- If QIS staff are housed in the same facility as a provider, the state should set measurements to ensure the QIS staff remain independent.

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CMS Site Visit Findings & Recommendations

- Determine the burden of proof standard the state will use in determining the substantiation of an allegation.
- There are generally 3 burden of proof standards
  - Preponderance of evidence – the probability that the incident occurred as a result of the alleged/suspected abuse/neglect and/or exploitation is more than 50%
  - Clear and convincing – the probability that the incident occurred as a result of the alleged/suspected abuse, neglect and/or exploitation is greater than 85%. This measure is often used in Civil Court.
  - Beyond a reasonable doubt - the probability that the incident occurred as a result of the alleged/suspected abuse, neglect and/or exploitation is greater than 99%. This measure is used in criminal prosecutions.

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CMS Site Visit Findings & Recommendations

- Where the State Medicaid Agency (SMA) is not the operating agency, look closely at the QIS activities of both the SMA and the operating agency and ensure that the findings for each entity are reconciled and any inconsistencies identified are addressed.
- Ensure coordination between the state's licensing/credentialing entity, investigative entity and QIS entity.
- If there are allegations of abuse, neglect or exploitation and staff are reporting that they are having difficulty getting medical treatment/examination for the individual, require the provider to ensure an examination/treatment is rendered.

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CMS Site Visit Findings & Recommendations

- Where the agency staff is signing off on Unusual Incident findings internal to the agency, make all attempts to ensure the independent investigative entity sees and makes record of the injury.
- Where the state is serving a unique cohort of individuals in a waiver, ensure that they are identified and that tracking and trending is done specific to this group and compared to the general trends identified for individuals served in the waiver.
- Ensure that as the state writes corrective action, the actions are sequenced in a manner that build on the previous action.
- Ensure that the state has outcome measures that assess whether the proposed action has ameliorated the targeted concern.

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Summary of GAO Report Findings

- In January 2018, the United States Government Accountability Office (GAO) released a report on a study of 48 states that covered assisted living services.[5]
- This study found large inconsistencies between states in their definition of a critical incident and their system's ability to report, track, and collect information on critical incidents that have occurred.
- States also varied in their oversight methods as well as the type of information they were reviewing as part of this oversight.
- CMS conducts oversight using annual state reports for each HCBS waiver; however, almost half of the states had limitations in their data reflected in 372 reports.
- The GAO recommends that requiring states to report information on incidents (e.g., type and severity of incidents, number of incidents, etc.) will strengthen the effectiveness of state and federal oversight.

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Summary of Recommendations from Reports

Findings from the HHS-OIG, GAO reports, and CMS audits highlight the need for states to:

- Conduct additional oversight regarding the administration and operation of their incident management systems;
- Provide clarity and transparency on the operation and collection of information from their incident management systems;
- Standardize definitions and processes for:
  - Responding to incidents; and
  - Annual reporting requirements for HCBS waivers.
- Implement promising practices and performance improvements that help maximize resources and improve current incident management systems.

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Synchronicity/Differences between the OIG and GAO Audits

- GAO audited Assisted Living Facilities nationally
- OIG audited 3 states ID/DD group home settings
- Findings for both audits were fairly consistent
- Between the two types of audits, settings serving Individuals with ID/DD, Older Adults, and Individuals with Disabilities were included.

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2018 Joint Report

- Issued by OIG, Administration for Community Living, Office of Civil Rights
- Aggregated individual state audits
- Recommended Model Practices for quality oversight framework
- Provided suggestions to CMS
- https://www.hhs.gov/sites/default/files/report_joint_report_hcbs.pdf

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Joint Report Recommended Model Practices for States

- Model Practices for State Incident Management and Investigation
- Model Practices for Incident Management Audits
- Model Practices for State Mortality Reviews
- Model Practices for State Quality Assurance

These will be reviewed in depth in later slides

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Joint Report Suggestions to CMS

- Encourage states to implement compliance oversight programs, such as the Model Practices
  - See Informational Bulletin issued June 28, 2018 https://www.medicaid.gov/federal-policy-guidance/downloads/cib062818.pdf
- Where there is evidence of a systemic failure to implement compliance oversight CMS should form a "SWAT" (Special Review) team to assist the state in addressing the problem effectively.
- Where there are serious health and safety findings, CMS should take immediate action, using its authorities under 42 CFR § 441.304(g) to ensure that beneficiaries are safe.

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Key Elements of Building an Effective Incident Management System

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What is an Incident Management System?

- According to the 1915(c) Technical Guide (page 225), "an incident management system must be able to:
  - Assure that reports of incidents are filed;
  - Track that incidents are investigated in a timely fashion; and
  - Analyze incident data and develop strategies to reduce the risk and likelihood of the occurrence of similar incidents in the future." [6]

Goals of an Incident Management System

A robust incident management system:

- Standardizes what incidents are and how incident reports are collected;
- Provides guidelines for states in prioritizing what incidents need to be investigated and resolved; and
- Allows states to identify, track, trend, and mitigate preventable incidents.

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Incident Management System
Introduction

- **The following are six key elements that states should consider when implementing an effective Incident Management System:**

1. Identifying the Incident
2. Reporting the Incident
3. Triaging the Incident
4. Investigating the Incident
5. Resolving the Incident
6. Tracking and Trending Incidents

Focus Today is Tracking and Trending Incidents

Tracking and Trending Incidents

Data Collection Priorities

- Identify the trends of interest to the state.
  - Determine what data is available and what needs to be collected.
    - Has the state committed to collecting data they aren't?
    - Is the state collecting data, but not trending or using for quality improvement?
    - Identifying common or reoccurring incidents will help the state prioritize what data to collect.
- Determine what types of reports are most beneficial.
  - The 1915(c) Technical Guide, on page 228 suggests gathering information for system-wide oversight, including the following:
    - Participant and provider characteristics;
    - How quickly reports are reviewed, investigated, and followed-up; and
    - Results of the investigation.
- Identify how often and who will receive the trend analysis reports (e.g., Ombudsman office, disability office, etc.).

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Tracking and Trending Incidents

Data Collection and Analysis – Part 1

- Determine the types of analyses to conduct from the collected data such as:
  - Types of incidents
  - Types of providers/provider analysis
  - Location of incidents
  - Alleged perpetrators
  - Recurring deficiencies
  - Investigation findings of:
    - Outlier incidents
    - Abuse, neglect or exploitation
    - ER visits/hospitalizations
  - Incident resolution timelines; and
  - Other medical findings

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Tracking and Trending Incidents

Data Collection and Analysis – Part 2

- Identify the types of data that need to be collected and tracked.
  - Sources of data:
    - Previous investigation reports;
    - Reports of previous unsubstantiated incidents;
    - Current corrective action plans (CAPs) and status of CAPs, if applicable; and
    - Clinical claims review.
  - Types of data to collect from the incidents include:
    - Initial incident reports;
      - Type of incident;
      - Alleged perpetrator and victim;
      - Treatment;
      - Timeframe; and
      - Other.
    - Findings and recommendations of investigations;
    - Implications of CAPs and status of CAPs on current investigation, if applicable; and relation of clinical claims review to person-centered service plan.

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Tracking and trending Incidents

Data Collection and Analysis – Part 3

- Determine how often data is aggregated and analyzed.
  - States should commit to a regular schedule for aggregating and analyzing findings and trends of the incident management system that is no less than annual.
  - This will require the training of staff to conduct the analysis of the findings and identifying trends from the incident reports.

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Tracking and Trending Incidents

Interventions and Safeguards – Part 1

- Identify areas of improvement to address adverse trends and patterns.
  - Page 228 of the 1915(c) Technical Guide states that "a critical element of effective oversight is the operation of data systems that support the identification of trends and patterns in the occurrence of critical incidents or events to identify opportunities for improvement and thus support the development of strategies to reduce the occurrence of incidents in the future."
  - The state may need to implement corrective actions to address adverse trends and patterns.
- Consider establishing interventions that are proactive. For example:
  - Bi-annual reminders to check smoke detectors, fire extinguishers, and evacuation routes and conduct fire drills across settings.
  - Alert sent to all providers at the beginning of summer to remind providers to not leave individuals alone in vehicles.

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Tracking and Trending Incidents

Interventions and Safeguards – Part 2

- Identify performance metrics as benchmarks that guide incident management activities. The state can:
  - Use the Quality Improvement System (QIS) Appendix G standard requirements highlighted in the 1915(c) Technical Guide to develop metrics that are appropriate for their waiver program.
  - Update the CMS-372(s) report with any performance metrics related to incident management and Appendix G that demonstrate deficiencies.
- Regularly conduct audits of the incident management process to determine the efficacy of implemented activities.
  - Results of the audits should be made available to CMS at least annually.
  - CMS will offer technical assistance upon request.

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Tracking and Trending Incidents

Interventions and Safeguards – Part 3

- Use the data to identify training opportunities for stakeholders to help prevent and mitigate incidents from occurring, including:
  - Trainings around risk factors to help individuals identify and mitigate situations that could potentially lead to an incident.
  - Trainings to help state agencies address any adverse findings from trend analysis and reports.
  - Trainings to assess proper compliance with trend analysis findings and CAPs issued to address adverse patterns.
    - For example, training providers who render services to elderly individuals of appropriate interventions to prevent falls. NOTE: Ensure you complete a follow-up analysis to determine if the training adequately addressed the issue.

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Tracking and Trending Incidents

Interventions and Safeguards – Part 4

- Conduct outreach to stakeholders based on findings from the data, strengthening collaborations in identifying, reporting, tracking, trending, and preventing incidents.
  - The 1915(c) Technical Guidance provides an example on page 228, that if the state's Adult Protective Service (APS) agency has primary oversight responsibility, the state's APS agency is responsible for sharing and communicating incident information with the SMA and/or operating agency.
  - Stakeholder participation is necessary for ensuring a comprehensive approach to gathering data regarding incidents.

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Reliable Incident Management and Investigation Processes

Incident management involves:

- Providing immediate and effective responses to serious incidents to protect beneficiary safety and well-being and to mitigate reoccurrence.
- Ensuring that the facts and circumstances of serious incidents are reviewed quickly and effectively and, as warranted, investigated.
- Identifying trends and patterns regarding serious incidents and addressing them through timely implementation of effective corrective actions (e.g., additional provider and staff training focused on both quality assurance and improvement, necessary changes and reforms to specific protocols in service delivery, and enhancements to standard operating policies).
- Notifying appropriate governmental entities and provider and support coordination agencies of serious incidents; public reporting regarding the overall safety and well-being of Medicaid beneficiaries.

Incident Management and Investigation

- A strong system of quality oversight utilizes a framework that defines and captures information on potential instances of abuse, neglect, or exploitation and emphasizes the importance of awareness and identification of critical incidents.
- CMS strongly encourages states to define critical incidents to, at a minimum, include unexpected deaths and broadly defined allegations of physical, psychological, emotional, verbal and sexual abuse, neglect, and exploitation.

Incident Management and Investigation (continued)

- Reporting critical incidents plays an important role in a quality oversight program, and CMS believes that it is necessary to ensure that an approach to incident management is not perceived as punitive, but instead as an opportunity to help make quality oversight systems stronger.
- CMS and the states must strike a balance to ensure that we are encouraging providers and other stakeholders to report and resolve critical incidents and to be active participants in ongoing quality improvement efforts

Audit Protocols That Ensure Compliance With Reporting, Review, and Response Requirements

An effective audit system of public agency and provider incident management activities involves:

- Processes to assess for timely and appropriate incident reporting, investigation, and response, and for implementation of timely interventions
- Appropriate corrective actions to minimize reoccurrence, and
- Assessments to determine if public agencies and providers are undertaking systemic reviews to identify and appropriately address incident trends or patterns.

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Incident Management Audits

- States are encouraged to conduct audits of their incident management systems to ensure that information on all occurrences meeting the state's definition of a critical incident are reported appropriately and lead to investigations to determine the need for any corrective actions.
- Review of Medicaid claims data as part of incident management audits can be most appropriate on a retrospective basis to identify where incidents have been reported and/or not reported, trends, and potential system improvement strategies.

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Mortality Reviews

- Reviews of beneficiary deaths can be an important aspect of a state's overall quality oversight system.
- States should consider a preliminary review of all beneficiary deaths.
- Investigations should focus on deaths that are determined to be "unusual, suspicious, sudden and unexpected, or potentially preventable, including all deaths alleged or suspected to be associated with neglect, abuse, or criminal acts."
- CMS recognizes that state Medicaid agencies and state operating agencies cannot mandate that autopsies be performed. States are encouraged to establish relationships with relevant agencies performing autopsies to maximize the likelihood of their performance upon state request.

Effective Mortality Reviews of Unexpected Deaths

An effective mortality review protocol involves:

- Timely reporting of all unexpected beneficiary deaths, including identification of the cause of death and the circumstances contributing to or associated with the death.
- Identification and implementation of corrective actions likely to minimize the reoccurrence of the immediate factors contributing to the death.
- Identification of mortality trends and patterns that warrant systemic responses to reduce avoidable risks of death and other adverse outcomes.
- Timely implementation of systemic responses and ongoing evaluation of their efficacy; and
- Periodic reporting of mortality trends and responses to ensure public reporting regarding the health, welfare, and safety of program beneficiaries.

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Quality Assurance Inclusive of Stakeholder Engagement

CMS supports:

- Inclusion of beneficiaries and other stakeholders in the development and implementation of a HCBS quality oversight program.
- Ensuring the transparency of information associated with HCBS quality oversight in fully utilizing the perspectives of a wide array of stakeholders.
- Establishing regular and clear communications with stakeholders, including individuals receiving or on a waiting list for HCBS.
- Publishing reports generated as part of a state's HCBS quality assurance program online and available (in plain English and other relevant languages) to stakeholders.
- Identification of ways to close feedback loops with individuals who are experiencing difficulties in receiving HCBS.

Summary

- A robust incident management system will help ensure the health and welfare of waiver individuals.
- States should reference this training and others found on www.Medicaid.gov as well as the 1915(c) Technical Guide when considering improvements to their incident management system.
- States should identify clear definitions, policies, and responsibilities for parties involved in the incident management process and provide continued training to prevent future incidents.

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1. Department of Health & Human Services CMS. “Modifications to quality measures and reporting in 1915(c) home and community-based waivers.” March 12, 2014. Available online: https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/3-cmcs-quality-memo-narrative.pdf
2. Department of Health & Human Services Office of Inspector General. “Connecticut did not comply with federal and state requirements for critical incidents involving developmentally disabled Medicaid beneficiaries.” May 2016. Available online: https://oig.hhs.gov/oas/reports/region1/11400002.pdf
3. Department of Health & Human Services Office of Inspector General. “Massachusetts did not comply with federal and state requirements for critical incidents involving developmentally disabled Medicaid beneficiaries.” July 2016. Available online: https://oig.hhs.gov/oas/reports/region1/11400008.pdf
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5. Government Accountability Office. “Medicaid assisted living services – improved federal oversight of beneficiary health and welfare is needed.” January, 2018. Available online: https://www.gao.gov/assets/690/689302.pdf
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8. Department of Health & Human Services CMS. “Health and Welfare of Home and Community Based Services (HCBS) Waiver Recipients” https://www.medicaid.gov/federal-policy-guidance/downloads/cib062818.pdf

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Additional Resources

- Copies of the HCBS Training Series – Webinars presented during SOTA calls are located in below link: https://www.medicaid.gov/medicaid/hcbs/training/index.html.
- 42 CFR § 441.302 is located here: https://www.gpo.gov/fdsys/pkg/CFR-2002-title42-vol3/pdf/CFR-2002-title42-vol3-part441.pdf
- Social Security Act § 1915(c) is located here: https://www.ssa.gov/OP_Home/ssact/title19/1915.htm
- The 1915(c) Technical Guide is located here: https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf

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Questions & Answers

For Further Information

For questions contact:

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Place-based predictive analytics for child & elder abuse prevention

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INDIVIDUAL RISK FACTORS

Elder Abuse[1]

- Functional dependence
- Disability/Cognitive impairment
- Poor physical health
- Poor mental health
- Low income/SES
- Social Isolation
- Transient caregivers

Child Maltreatment[2]

- Age younger than 4 years
- Disability
- Chronic physical illness
- Mental health problems
- Low income/SES
- Social isolation
- Transient caregivers

1.Pillemer, K., Burnes, D., Riffin, C., & Lachs, M. S. (2016). Elder Abuse: Global Situation, Risk Factors, and Prevention Strategies. *The Gerontologist*, *56*(Suppl 2), S194–S205. http://doi.org/10.1093/geront/gnw004

2. CDC (2018) Child Abuse and Neglect: Risk and Protective Factors https://www.cdc.gov/violenceprevention/childabuseandneglect/riskprotectivefactors.html

PERPETRATOR CHARACTERISTICS

Elder Abuse[1]	Child maltreatment[2]
• Mental illness	• ✔
• Substance abuse	• ✔
• Family disorganization, dissolution, and violence (including intimate partner violence)	• ✔
• Abuser dependency	

1.Pillemer, K., Burnes, D., Riffin, C., & Lachs, M. S. (2016). Elder Abuse: Global Situation, Risk Factors, and Prevention Strategies. *The Gerontologist*, *56*(Suppl 2), S194–S205. http://doi.org/10.1093/geront/gnw004

2. CDC (2018) Child Abuse and Neglect: Risk and Protective Factors https://www.cdc.gov/violenceprevention/childabuseandneglect/riskprotectivefactors.html

ENVIRONMENTAL CHARACTERISTICS

Elder Abuse[3]	Child maltreatment[2]
Concentrated community violence	✔
High poverty	✔
Inadequate housing	✔
Residential instability	✔
High unemployment rates	✔
High density of alcohol outlets	✔
Poor social connections	✔
Poor access to health and social services	✔
Health disparities	✔
Social norms	✔

2. CDC (2018) Child Abuse and Neglect: Risk and Protective Factors https://www.cdc.gov/violenceprevention/childabuseandneglect/riskprotectivefactors.html
3. Portacolone, E. (2018). Structural Factors of Elders' Isolation in a High-Crime Neighborhood: An In-Depth Perspective. *The Public Policy andAging Report*, *27*(4), 152–155. http://doi.org/10.1093/ppar/prx025

CRITICAL INCIDENTS

Elder Abuse[4]

- Deaths
- Physical and sexual assaults
- Preventable injury: near drowning, choking, burns, car accidents, physical injury, suicide
- Missing persons
- Unplanned hospitalizations
- Inadequate medical services
- Verbal or emotional abuse, theft or property damage
- Medical errors

Child Maltreatment[5]

- ✔
- ✔
- ✔
- ✔
- ✔
- ✔
- ✔

4.ACL (2018) Joint Report: Ensuring Beneficiary Health and Safety in Group Homes Through State Implementation of Comprehensive Compliance Oversight https://www.acl.gov/aging-and-disability-in-america/joint-report-ensuring-beneficiary-health-and-safety-group-homes

5. Children's Bureau (2018) Child Maltreatment 2016 https://www.acf.hhs.gov/cb/resource/child-maltreatment-2016

PREDICT
ALIGN
PREVENT

"A call to a child protection hotline is the best predictor of a child's potential risk of injury death before age 5."

https://www.acf.hhs.gov/cb/resource/cecanf-final-report

PREDICT
ALIGN
PREVENT

Person-based vs. place-based predictive analytics

Nice weather
Daylight
Weekend

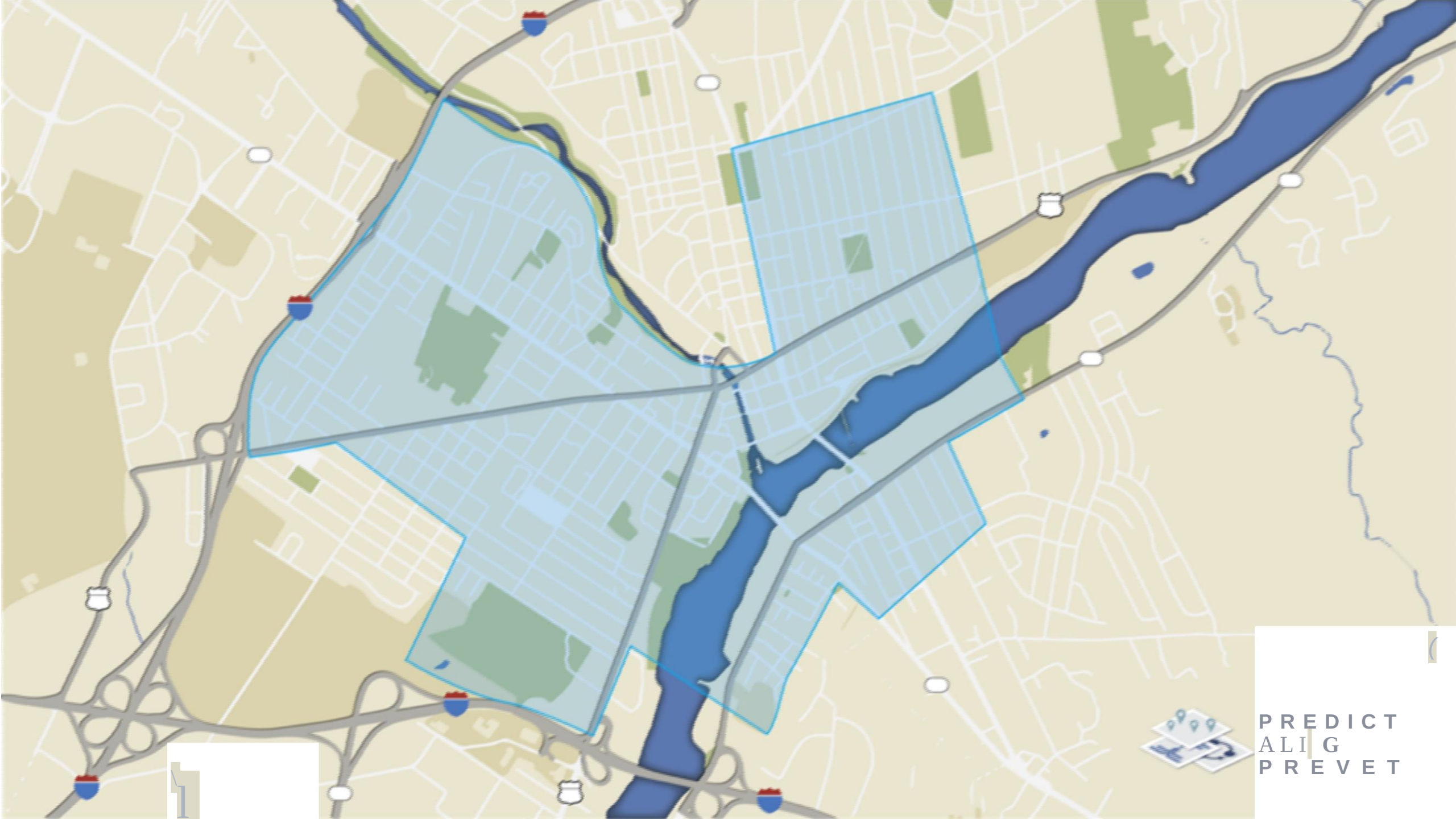
Infrastructure

Child Playing (dependent variable)

Social influencers

Photo: Queen's Park Courtesy of New Westminster Parks, Culture and Recreation

PREDICT
ALIGN
PREVENT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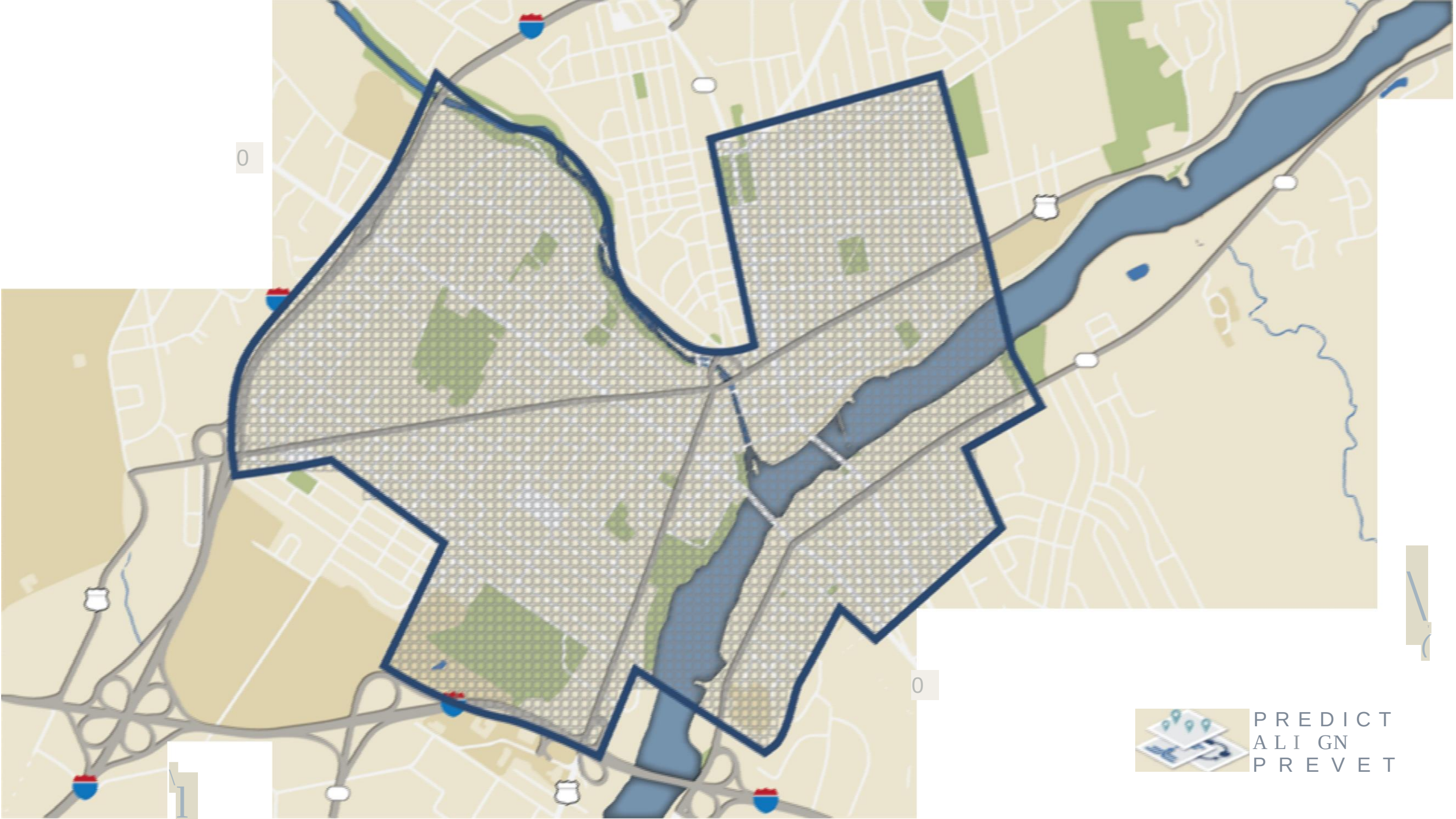
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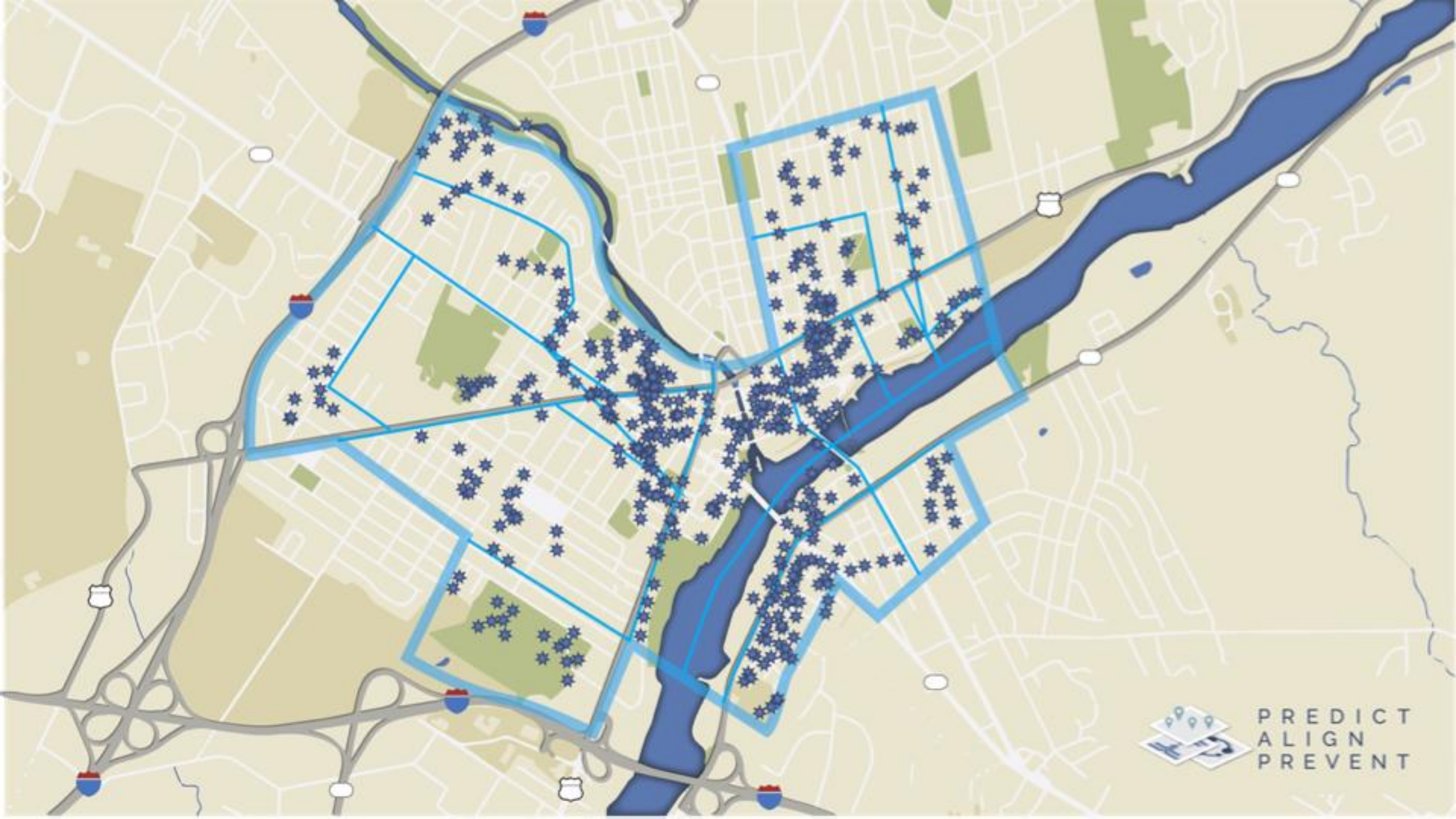
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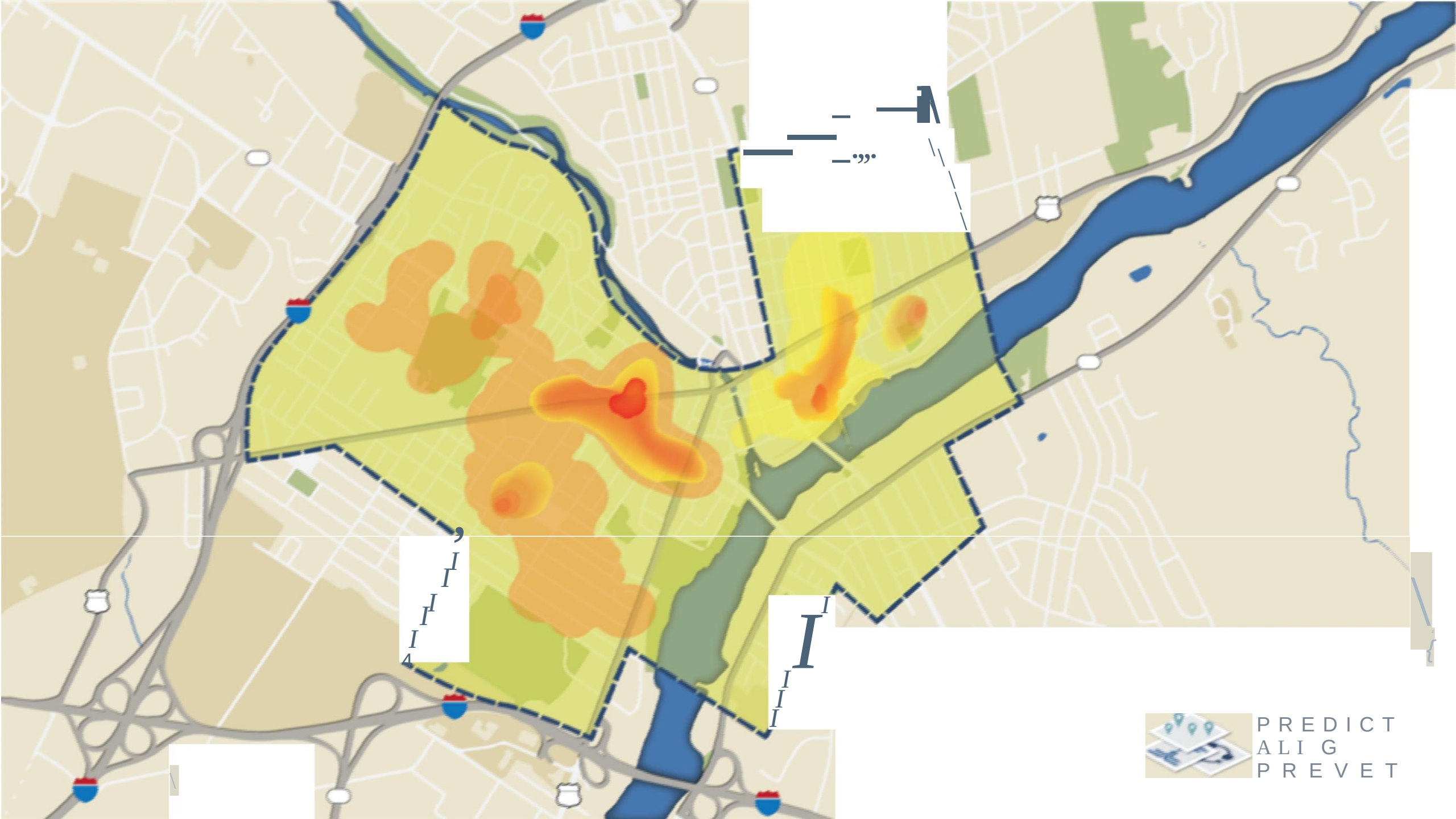
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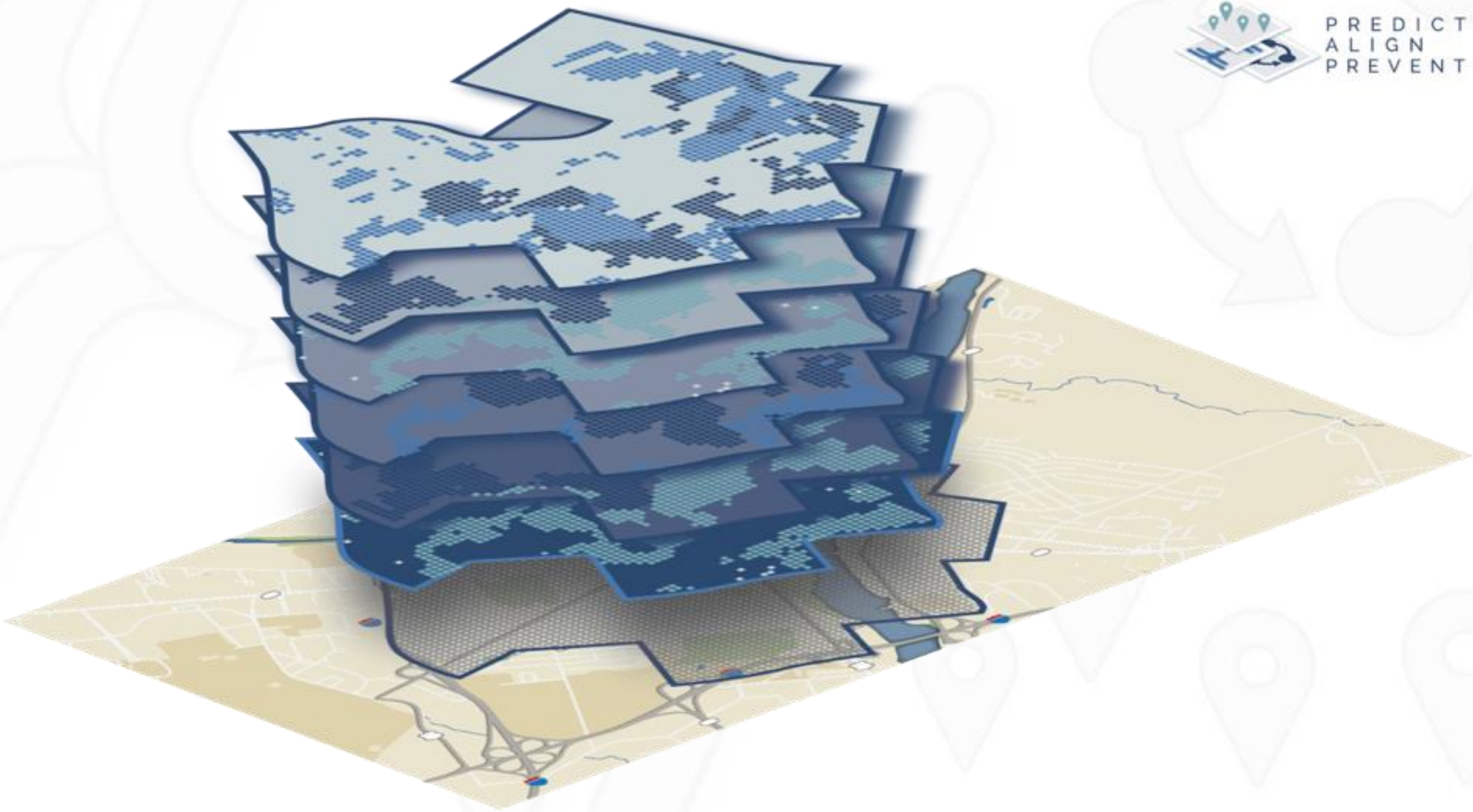

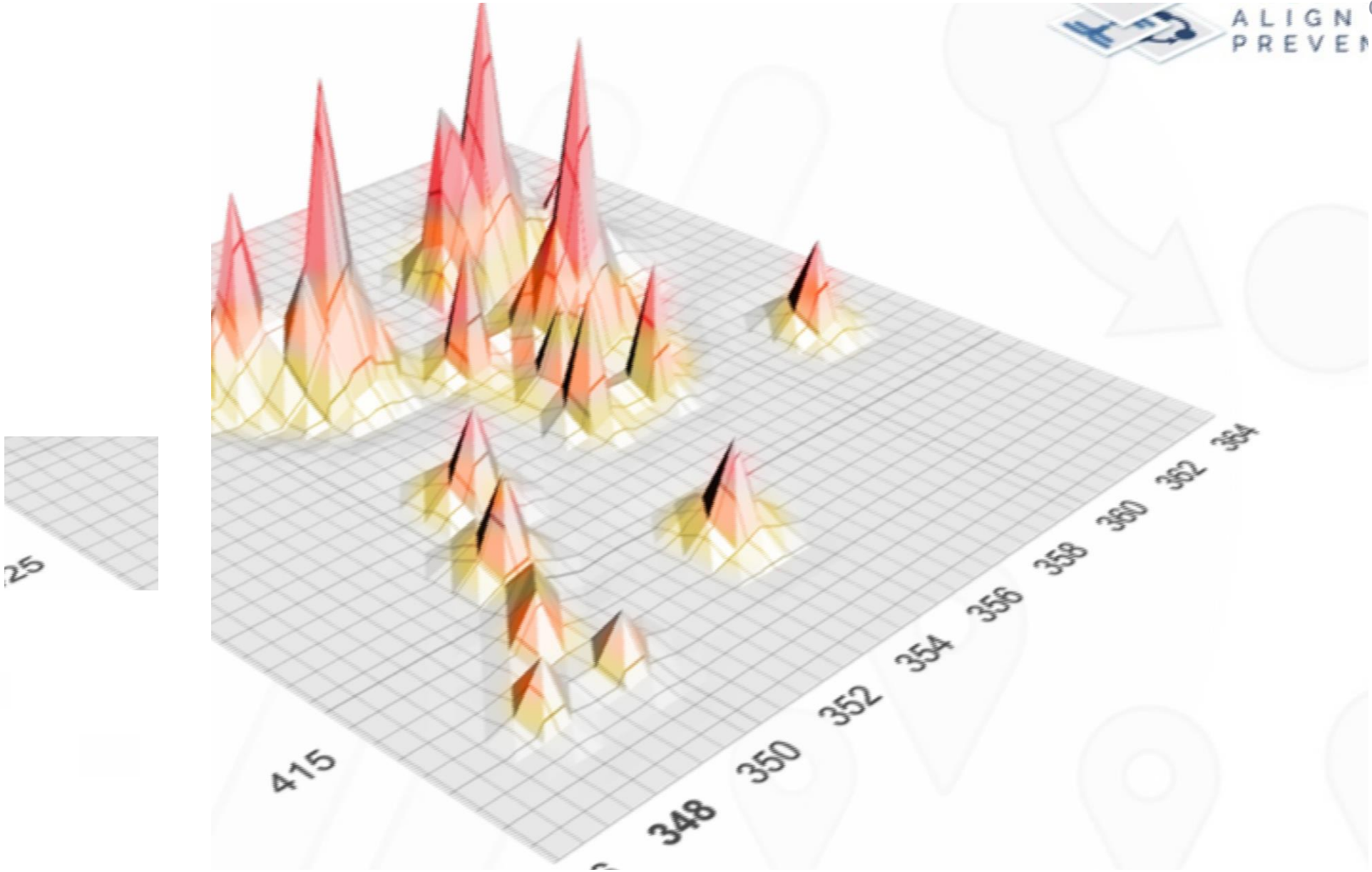
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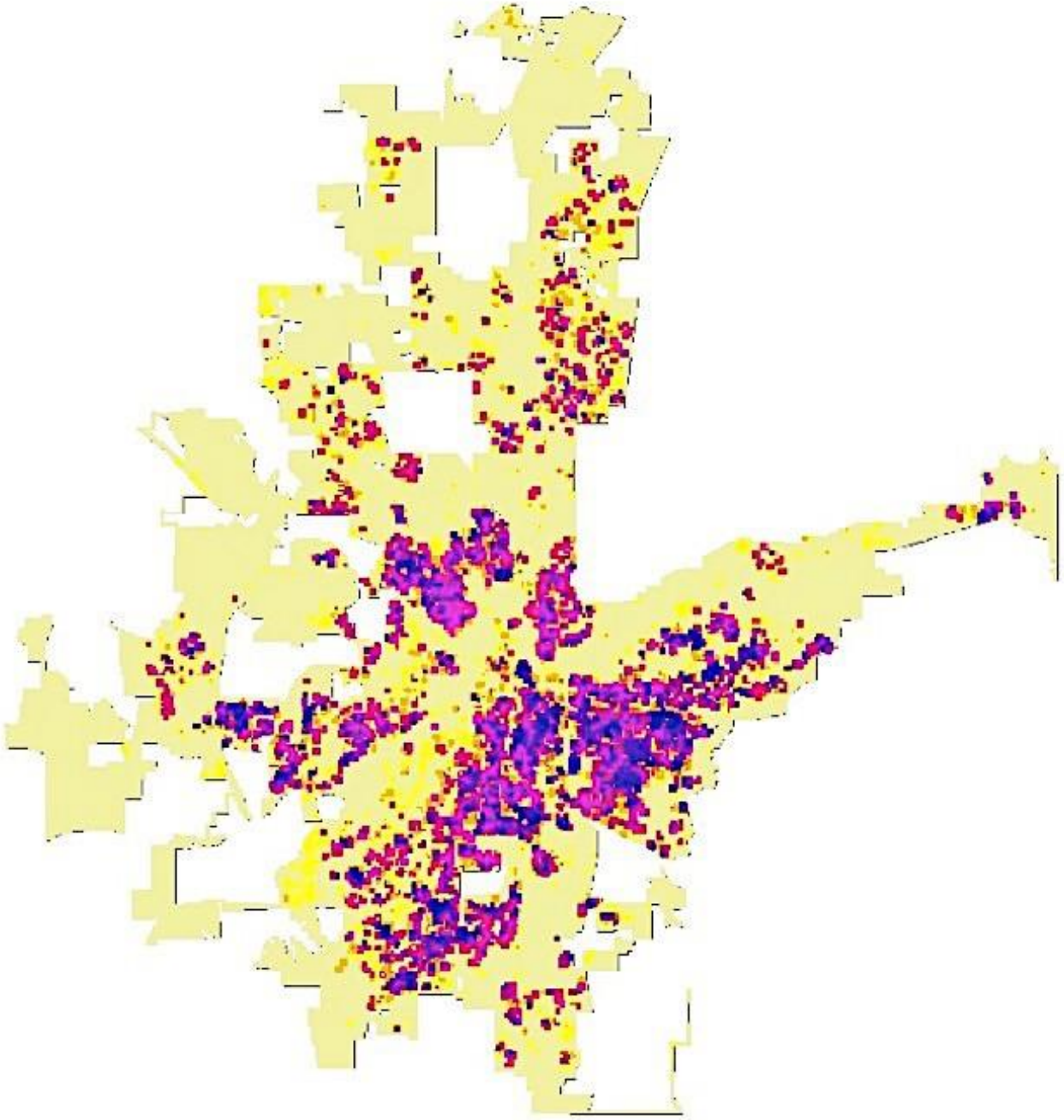

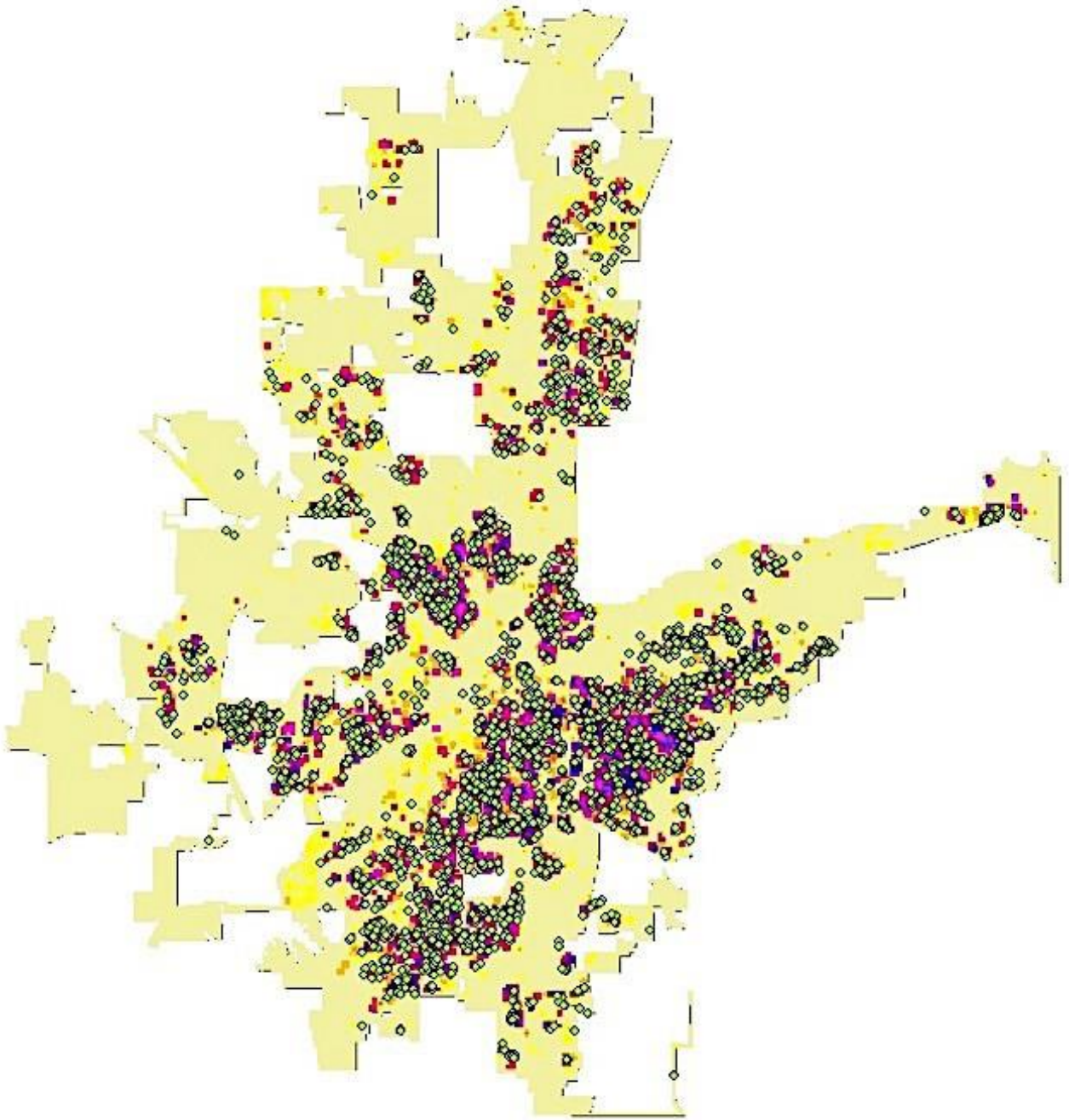

The boundaries of resilience theory

"Scholars of resilience celebrate elders' ability to rebound from trying experiences and structural obstacles." *However, the experiences of vulnerable residents of high-crime neighborhoods* "suggest the existence of a tipping point, i.e., a point beyond which an individual's strength and plasticity can no longer withstand the cascading host of external and compounding stressors."

Portacolone, E. (2018). Structural Factors of Elders' Isolation in a High-Crime Neighborhood: An In-Depth Perspective. *The Public Policy and Aging Report*, *27*(4), 152–155. http://doi.org/10.1093/ppar/prx025

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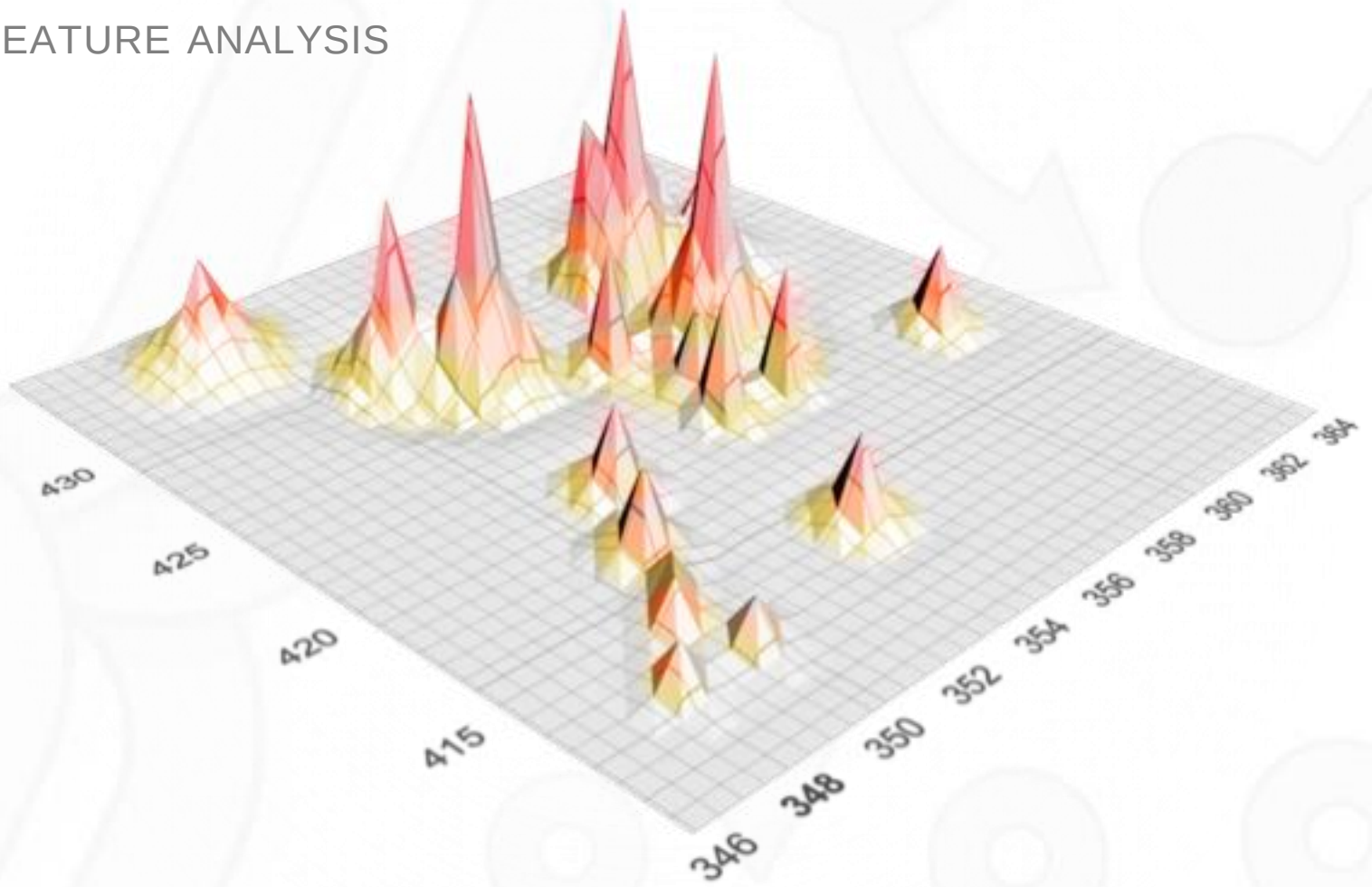
PREDICT

GEOSPATIAL RISK AND PROTECTIVE FEATURE ANALYSIS

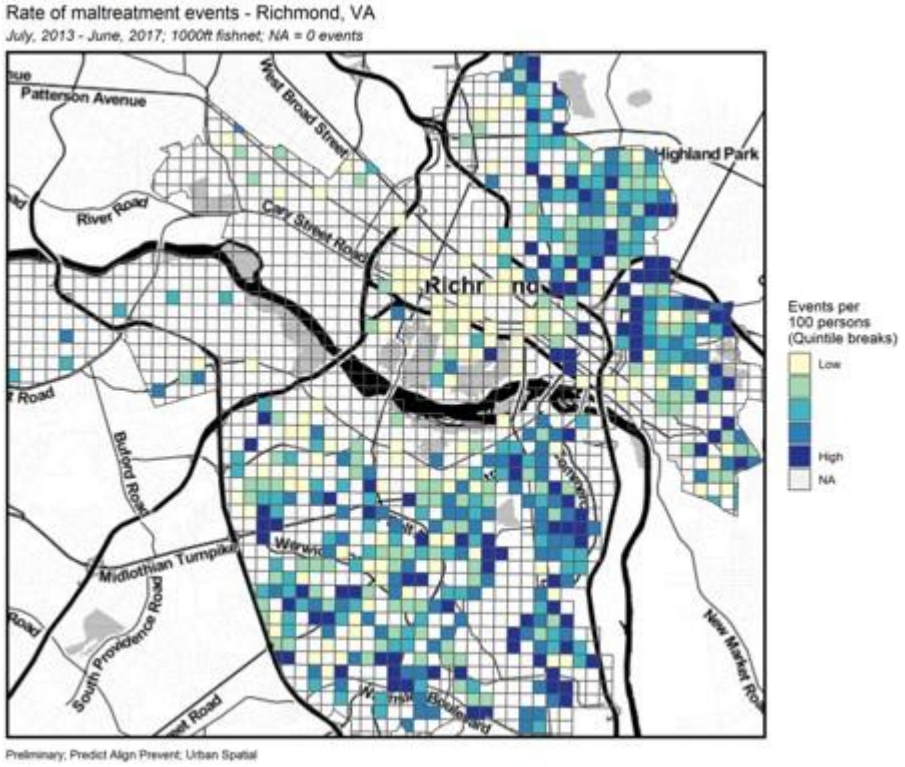
- Where to focus
- What to focus on
- Where to align resources
- Opportunities for collaboration and cost savings



ALIGN

COMMUNITY-BASED COLLABORATIVE STRATEGIC PLANNING

- **Review findings of existing community surveys, focus groups, needs and strengths assessments**
- **Define capacity needs and gaps**
- **Risk mitigation**
  - Focused crime prevention
  - Modification of crime-attracting infrastructure
  - Awareness / education and social norms change campaigns
- **Optimize community protective resources**
  - Prevention resource allocation
  - Improve professional response
  - Cross-sector policy and messaging standardization
  - Event-based community/resilience building
  - Supportive infrastructure
- **Baseline population-level health and safety metrics**
  - Injury-related death (child and adult)
  - Maternal and infant morbidity and mortality
  - Violent crimes
  - School readiness, 3rd grade reading levels
  - Child and elder maltreatment rates



Capacity needs and gap analysis

	Population (quintile break)	Estimated need (US population average)	Existing capacity	Gap
Serious mental illness services, adult[1]	XXX	4%	XXX	XXX
Drug and alcohol treatment[2]	XXX	8.5%	XXX	XXX
Food insecurity services[3]	XXX	12.3%	XXX	XXX

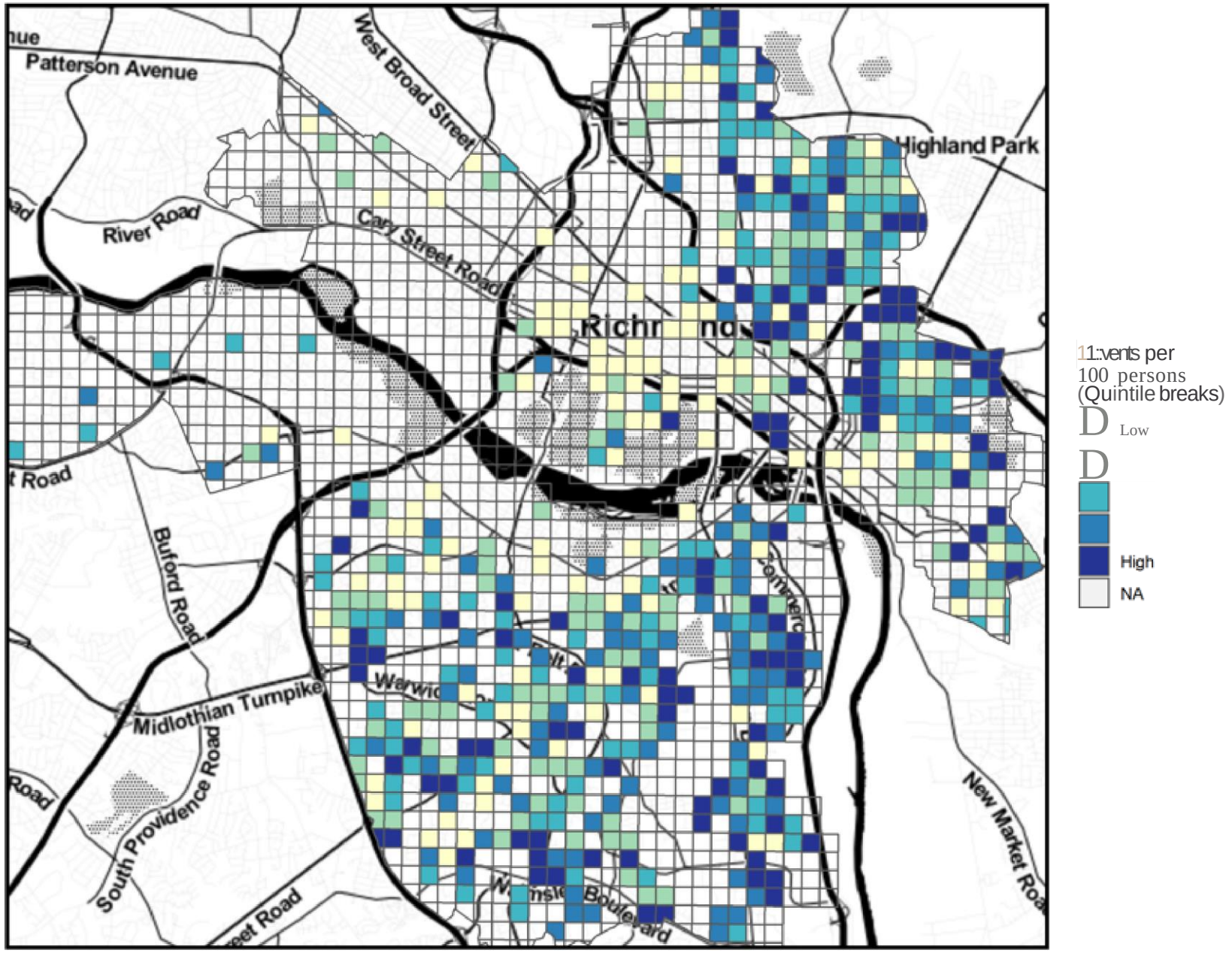
1.Substance Abuse and Mental Health Services Administration. (2017). *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health* (HHS Publication No. SMA 17-5044, NSDUH Series H-52).Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

2.Barnett, Jessica C. and Edward R. Berchick, Current Population Reports, P60-260, Health Insurance Coverage in the United States: 2016, U.S. Government Printing Office, Washington, DC, 2017 https://www.census.gov/content/dam/Census/library/publications/2017/demo/p60-260.pdf

3. USDA (2017) Food Security in the US https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx#insecure

Rate of maltreatment events - Richmond, VA

July, 2013 - June, 2017: 1000ft fishnet; NA = 0 events



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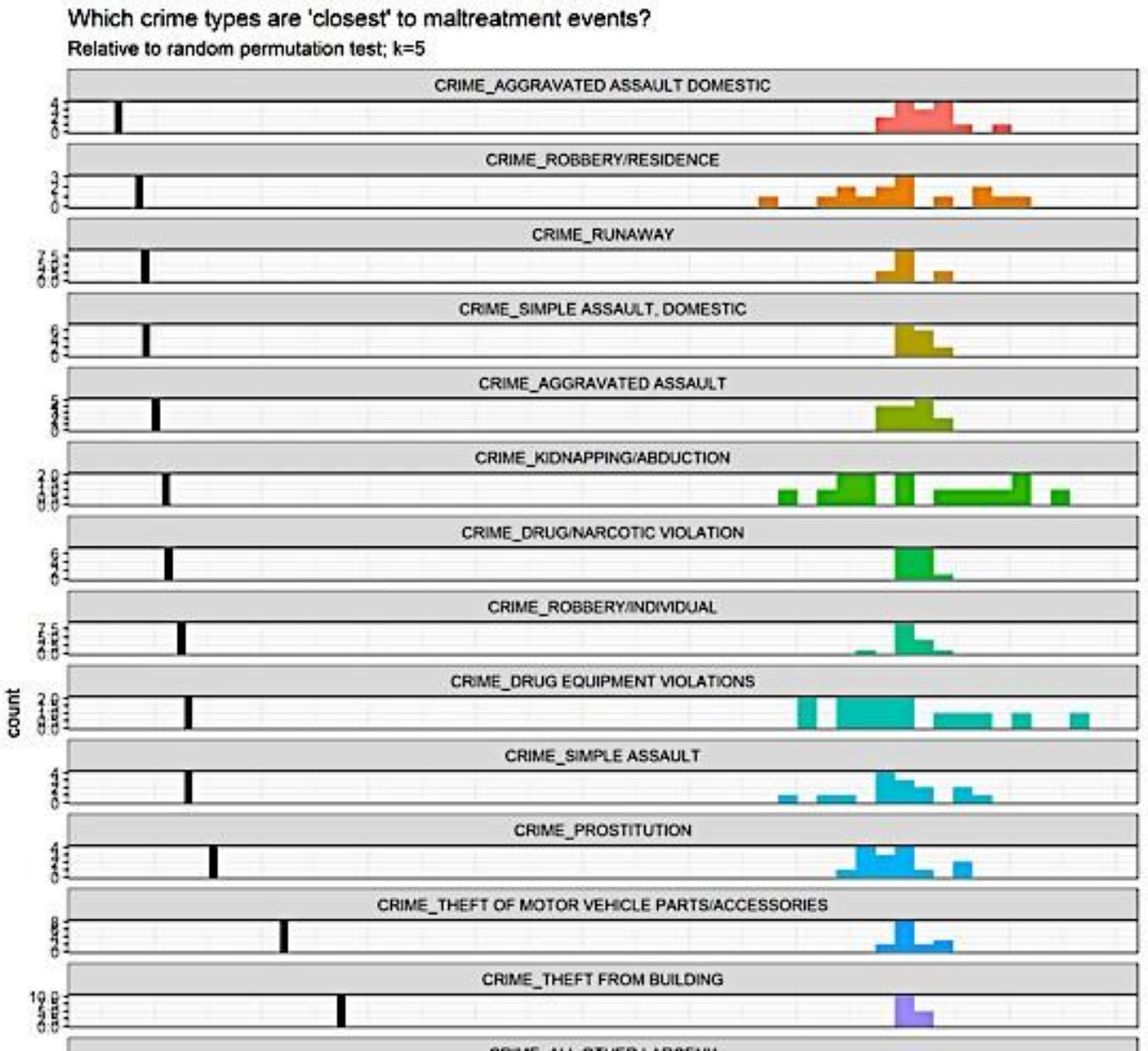
Risk mitigation

FOCUSED CRIME REDUCTION

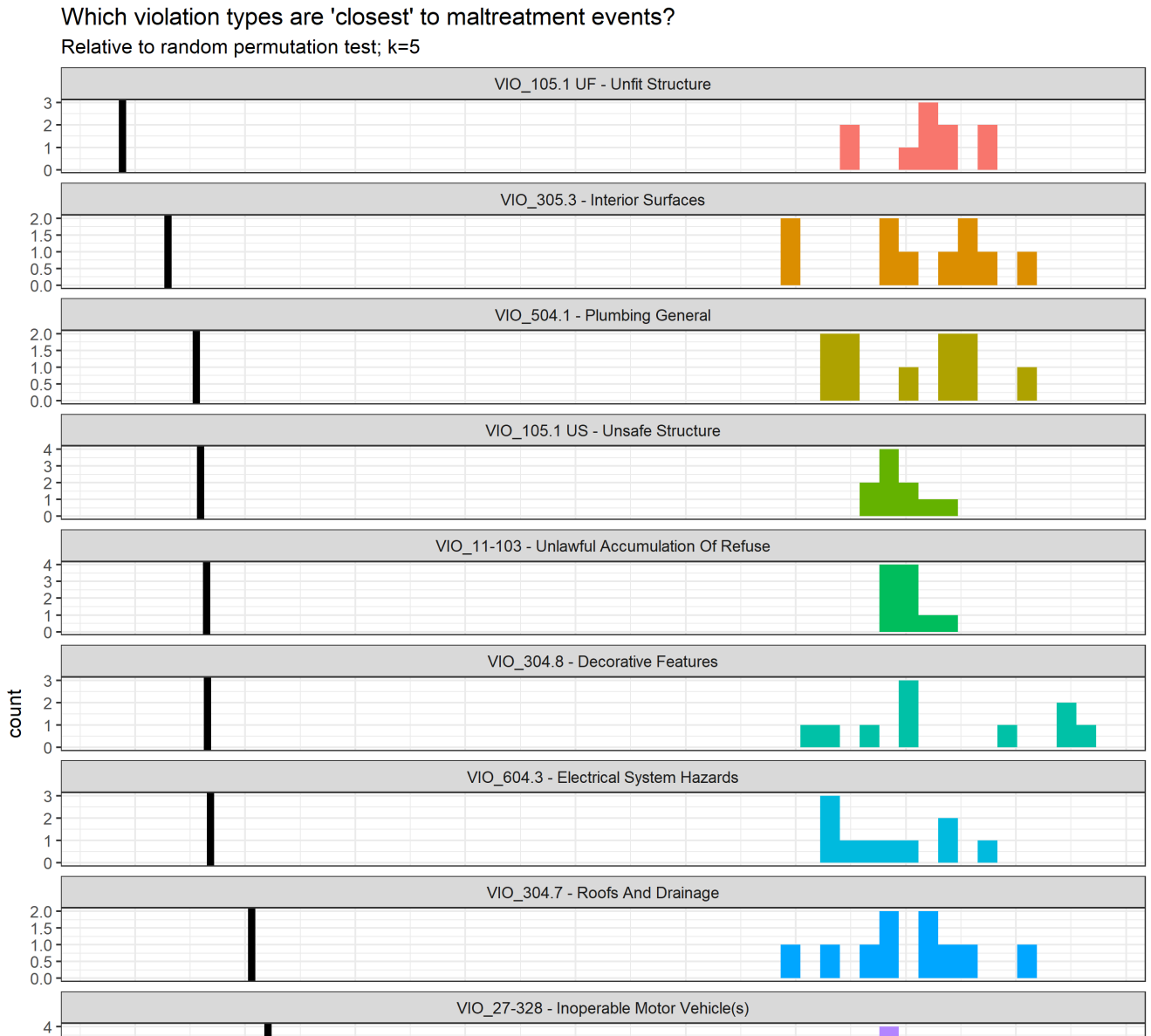
- Domestic violence
- Residential robbery
- Runaway
- Assault



Risk mitigation

MODIFICATION OF CRIME ATTRACTING INFRASTRUCTURE

- Crime prevention through environmental design (CPTED)
- Modification of unfit and unsafe structures



Optimize community protective resources
RESOURCE ALLOCATION

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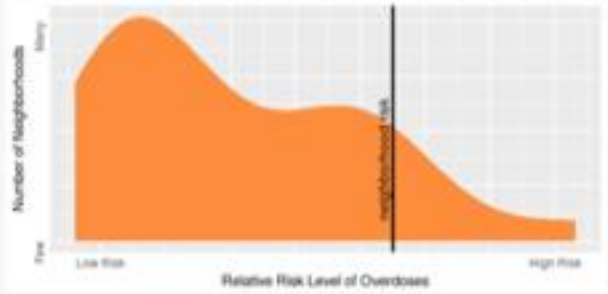
Predicting Risk of Opioid Overdoses in Providence, Rhode Island

A map of overdose risk levels can help the City & other stakeholders site interventions to combat the opioid epidemic

What is each Neighborhood's Relative Risk Level?

Downtown

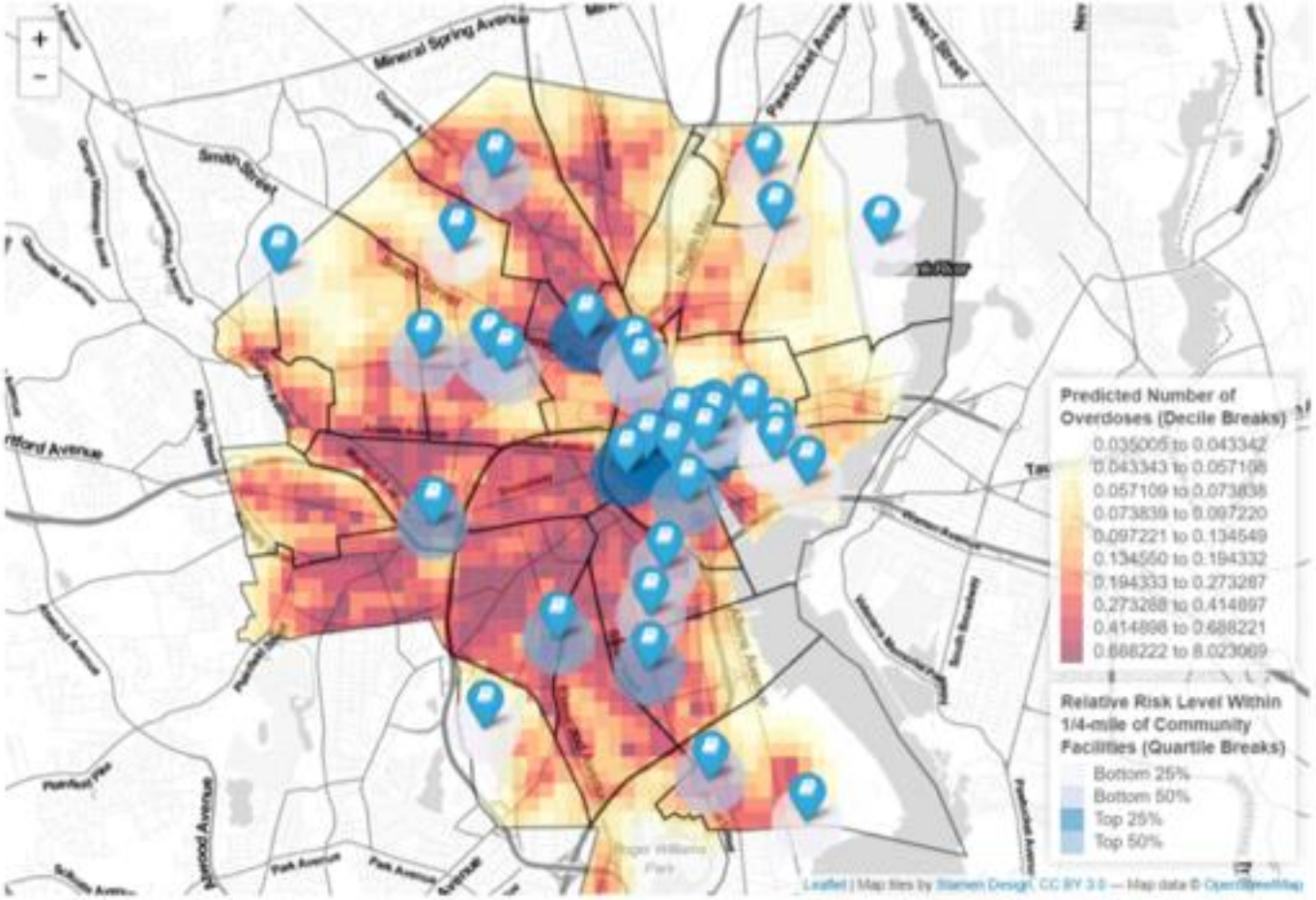


Where Could Additional Interventions Be Sited?

Check a box to see where community facilities are located. Click on their icons to see how many overdoses occurred within a 1/4-mile of each facility in 2017.

- ☐ Fire Stations
- ☐ Hospitals
- ☐ EMS Facilities
- ☐ Law Enforcement Facilities
- ☐ Grocery Stores
- ☐ SNAP Vendors
- ☐ Schools
- ☑ Libraries

@KenSteif



https://jordanbutz.shinyapps.io/directory/

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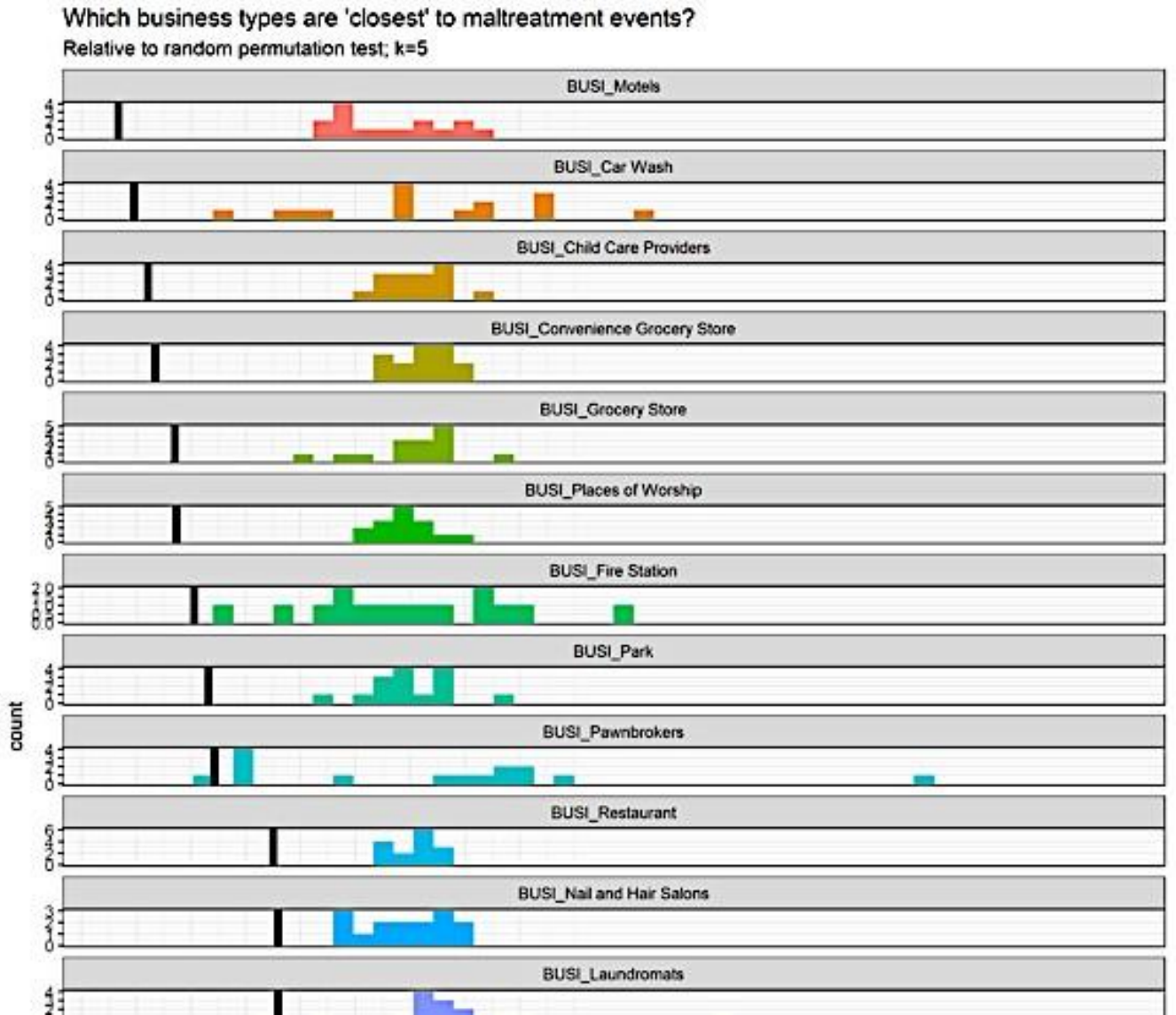
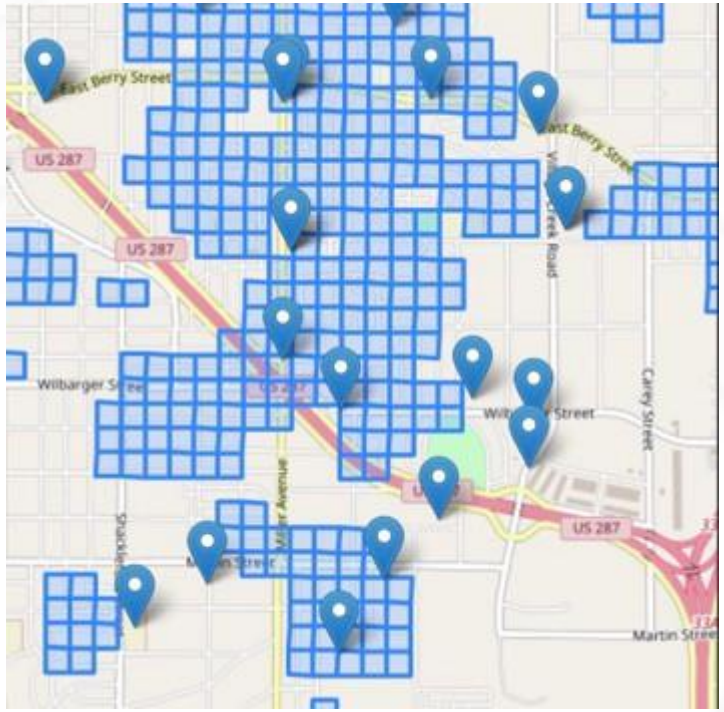
Optimize community protective resources

- Note the business types visualization for an example.
- Child care centers are much closer than we would expect relative to random chance, suggesting they are a well positioned resource for prevention activities.



PREVENT

IDENTIFY THE COMPONENTS OF AN EFFECTIVE PRIMARY PREVENTION BUNDLE



- Child maltreatment
- Maltreatment-related fatality
- Injury-related fatality
- Recurrence of child maltreatment
- Appropriate outcry response
- Infant mortality
- Premature birth
- Violent crimes
- Drug offenses
- Intimate partner violence
- Teen parenthood
- Kindergarten readiness
- 3rd grade reading levels

Skillset needed to replicate our geospatial machine learning workflow

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- Visualization and cartography in R with the ‘spatstat’ and ‘ggplot2’ packages.
- Area weighted overlay and geoprocessing in R with the ‘sf’, ‘sp’ and ‘tidyverse’ packages.
- Querying. Census data with the `tidycensus’ package.
- Point-process random permutation tests.
- Feature engineering including kernel density, nearest neighbor and aggregate
- count analytics.
- Correlation analysis.
- Moran’s I and Local Moran’s I.
- Ability to fit and interpret Generalized Linear Models including zero inflated
- Poisson and Negative Binomial; Spatial Durbin and other spatial autoregressive models; Ridge, Lasso regression and regularization. Gradient Boosting, Random Forests and comparable machine learning algorithms.
- The ability to develop and validate ensemble models.
- Cross validation and spatial cross validation.
- The interpretation of and choosing among a host of spatial ml goodness of fit metrics.
- Familiarity with R Markdown.

PREDICT
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- Our mission is to prevent child abuse and neglect through geospatial risk analysis, strategic alignment of community initiatives, and implementation of accountable prevention programs.
- Committed to open science, objective metrics, and child-centered outcomes
- A Texas-based 501(c)(3) nonprofit organization

www.predict-align-prevent.org

@predictprevent

#childrenFIRST

Health and Welfare in the Context of HCBS Waivers

Vicki Gottlich, Esq.

Director, Center for Policy and Evaluation

Administration for Community Living

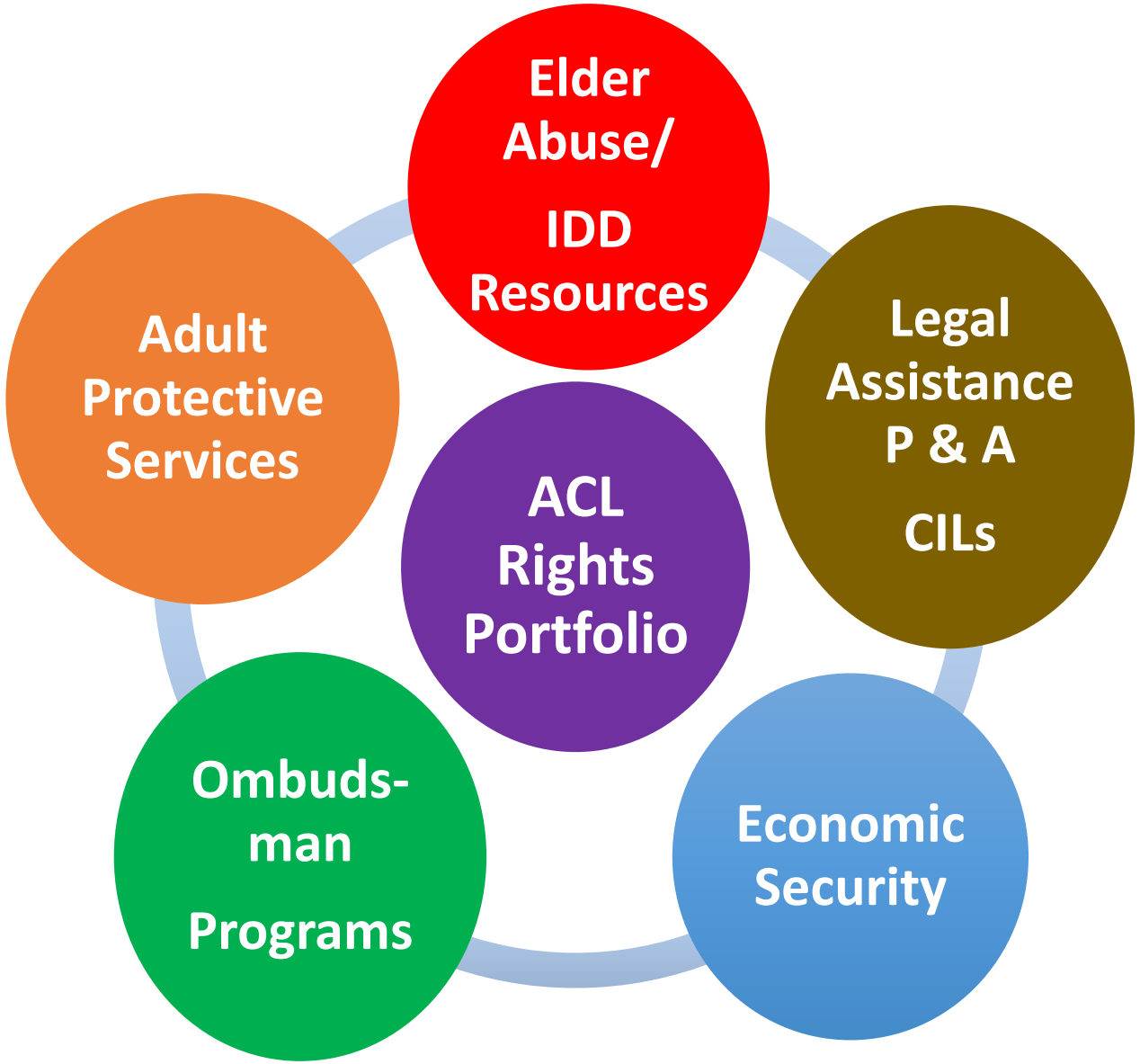
ACL's Vision For Protecting Rights & Preventing Abuse

- All people have the right to live their lives with dignity and respect.
- ACL is committed to
  - developing systems & programs that prevent abuse from happening,
  - protecting people from abusive situations, and
  - supporting people who have experienced abuses to help them recover.

ACL's Vision

A comprehensive, multidisciplinary system
that effectively supports
older adults and adults with disabilities
so they can exercise their right
to live where they choose,
with the people they choose, and
fully participate in their communities
without threat of
abuse, neglect, or financial exploitation.

ACL's Portfolio



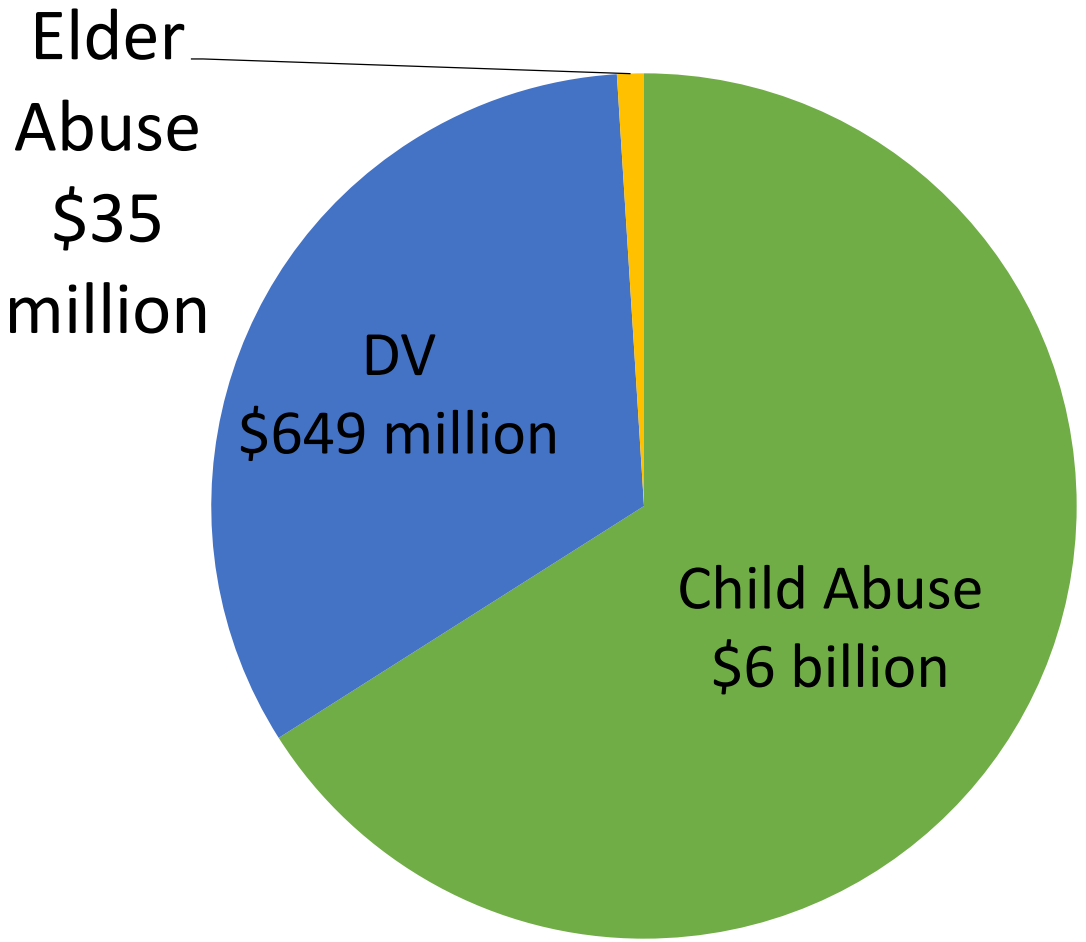
Evolution of Family Violence

- 1940s: animal protection and welfare
- 1960s: child abuse prevention and treatment
- 1990s: violence against women/intimate partner violence
- 2010: elder abuse prevention – Passage of the Elder Justice Act

Evolution of Awareness of Elder Abuse

- 1975 - “Granny Battering” article
- 1989 - Establishment of the Nat’l Center on Elder Abuse
- 1992 - Government sponsored National Elder Abuse Incidence Study
- 2003 - National Academies Report; Elder Justice Act (EJA) *introduced*
- 2005 - First RFA from the Nat’l Institute on Aging on elder abuse
- 2010 – Passage of Elder Justice Act
- 2015 – First allocation of funding under the EJA

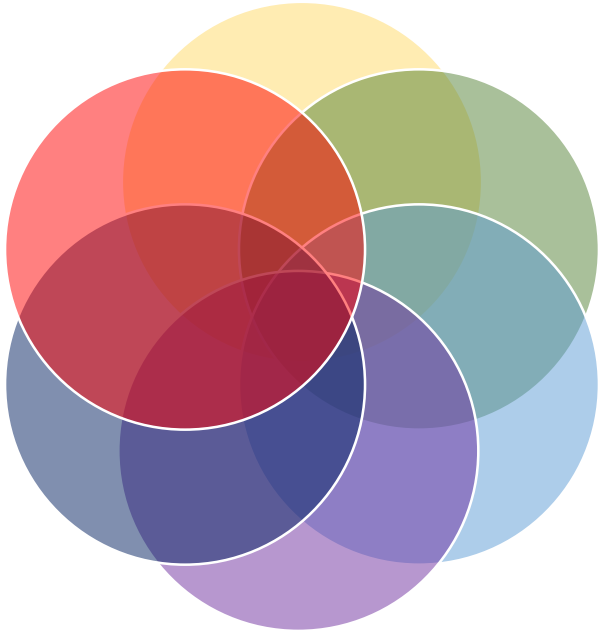
Federal Funding for Family Violence



Generally Accepted Categories

Physical

Sexual



Emotional

Neglect

Abandon-
ment

Self-
Neglect

Exploitation

Elder Abuse Definition

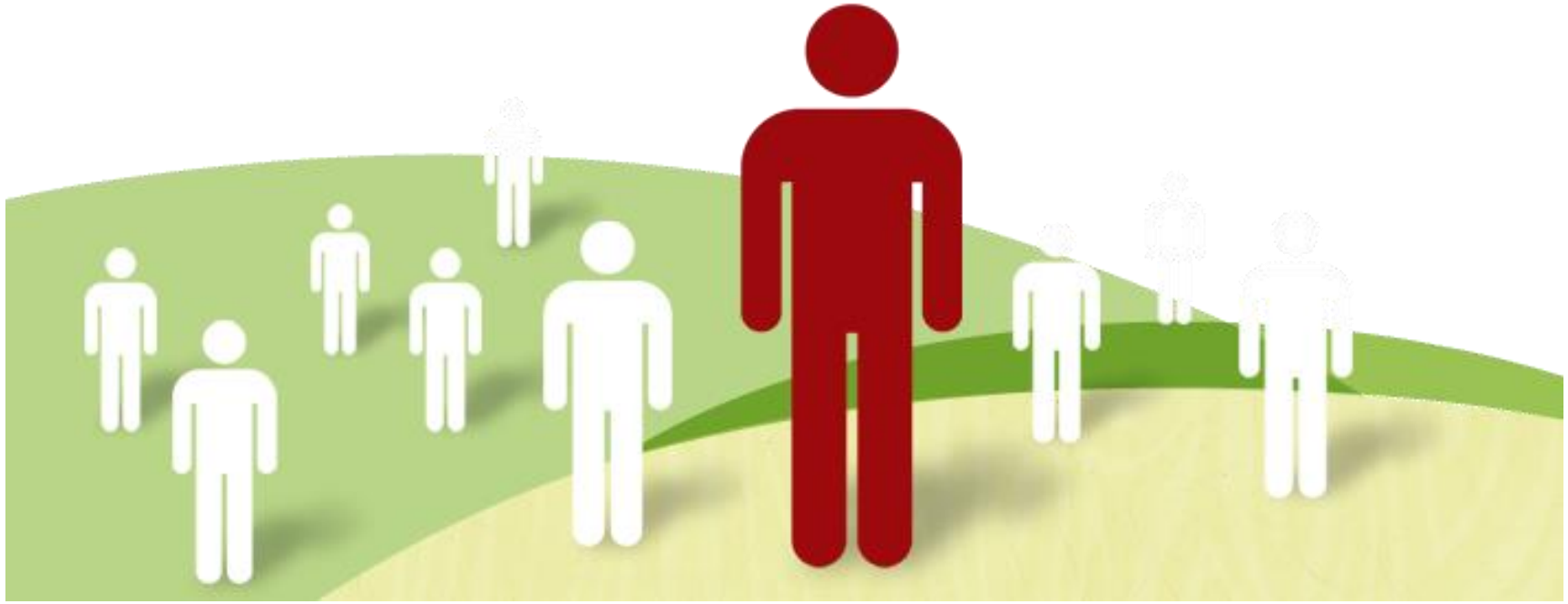
- Physical, sexual or psychological abuse, as well as neglect, abandonment, and financial exploitation of an older person by another person or entity,
- That occurs in any setting (e.g., home, community or facility),
- Either
  - In a relationship where there is an expectation of trust; and/or
  - When an older person is targeted based on age or disability.

Cite: DOJ/HSS Elder Justice Roadmap Project

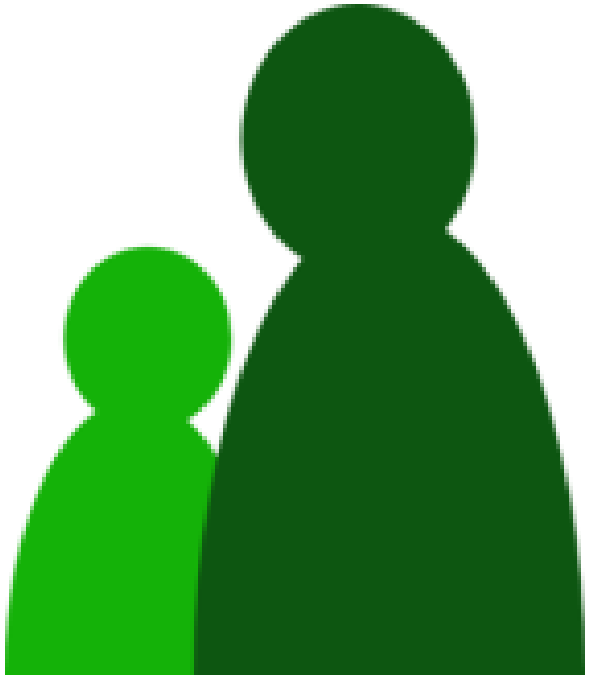
1 IN 10 AMERICANS AGE 60+

EXPERIENCED ABUSE OVER ONE YEAR,

AND MANY EXPERIENCED IT IN MULTIPLE FORMS.



Nearly 1 in 2 people with dementia experience some form of abuse by others.



An estimated 5.2 million Americans have Alzheimer's disease.

Abuse of Long-term Care Residents

In a study of 2,000 NH residents, 44% said they had been abused.

Over 50% of NH staff admitted to mistreating older residents.

Abuse of Adults with Disabilities

70% of adults with disabilities polled in one survey said that they were subject to physical abuse, verbal or emotional abuse, neglect or mistreatment. **60%** of family members said their family member had been subject to some type of abuse.

90% said they had been abused more than once. Abuse was not reported in about **50%** of the cases.

Abuse of Adults with Disabilities

30% of adults with disabilities who used Personal Assistance Services reported **one or more types of mistreatment** by their primary provider

In an anonymous sample**, 68%** of 305 adult women with disabilities reported **experiencing one or more types of abuse** in the preceding year. Of those abused, **30% experienced sexual abuse in the preceding year**

FOR EVERY REPORT OF ABUSE

23.5 CASES GO UNREPORTED

Elder abuse victims

- Are ***twice as likely to be hospitalized*** than other older adults
- Are ***four times more likely*** than non-abused older adults ***to go into nursing homes***

3 times more likely to die

Financial Impact

Victim Characteristics

- Functional dependence or disability
- Poor physical health
- Cognitive impairment/dementia
- Poor psychological health
- Low income

Abuser Characteristics

- Poor psychological health
- Drug or substance misuse
- Dependency on the victim for emotional support, financial help

Preventing Abuse: Promising Practices

- **Caregiver Interventions**: practical support such as housekeeping and meal prep targeted to abusive caregivers may prevent revictimization. Also, caregiver support may delay onset of abuse in non-abusing caregivers.
- **Money Management Programs**: vulnerable individuals can be helped through daily money management to avoid financial exploitation.
- **Helplines**: anonymous helplines facilitate early intervention that can prevent or forestall abuse. Useful for both abusers and victims.

Intervening: Promising Practices

- **Emergency shelter:** provide safe, temporary residence that may prevent permanent relocation to nursing home.
  - But concerns about effects of removal of the victim
- **Multi-disciplinary teams**: effective response to coordinating care and reducing fragmentation, and improving outcomes.

A Word About Adult Protective Services

- APS programs developed in the late ‘70s and were modeled on Child Protection programs
- Services provided by state and local governments
- Services to older adults and people with disabilities – including people with SMI, SUD, IDD
- Huge diversity in APS structure, eligibility, practice – “you’ve seen one APS program, you’ve seen one APS program”
  - Age of adults served may vary by state
  - Definition of vulnerable populations may vary

A Word About Adult Protective Services

- Significant difference between child protective services and adult protective services:
  - adult client has the right to refuse help
- No direct federal funding to APS until 2015 (discretionary grants) and then $2.5 million for entire country
- Almost no research yet on APS outcomes.

ACL's Investment in the APS of Tomorrow

- **Voluntary Consensus Guidelines for State APS Programs** (2016) – provides guidance about good APS practice. Several states amending policy manuals to be in sync with the Guidelines.
- **National Adult Maltreatment Reporting System (NAMRS)** (2015): repository of data from state APS programs. All 50 states are submitting data to this federal database.
- **Grants to enhance state APS programs** (2015-present): 24 grants made to state APS programs to date. Projects include: creating curricula, developing risk/safety assessments, upgrading data systems to be congruent with NAMRS, etc.

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