# POLICING RESEARCH RESOURCES AND EXAMPLES OF EVIDENCE-BASED POLICING IN PRACTICE

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# Outline

☐ Does evidence-based policing (EBP) reduce violence?

   ☐ What we know about strategies that work

☐ How can police learn more about evidence-based policing?

   ☐ Lots of freely available resources to learn more about policing research

☐ What are next steps for evidence-based policing?

   ☐ Thinking about outcomes, data, and research receptivity

# Does evidence-based policing reduce violence?

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## Evidence-Based Policing: Does It Reduce Violence?

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YES!

Lawrence Sherman began his 1998 *Ideas in American Policing* paper on evidence-based policing by arguing, "Of all the ideas in policing, one stands out as the most powerful force for change: police practices should be based on scientific evidence about what works best" (p. 2). The focus of evidence-based policing is using findings and conclusions drawn from rigorous research to help guide policy and practice (see Sherman, 2013). Importantly, for evidence-based policing to help reduce crime, there must be a sufficiently large evidence base of studies that suggest strategies and tactics police can use to effectively combat crime and disorder problems. The Evidence-Based Policing Matrix (Lum, Koper, & Telep, 2011), a collection of rigorous studies in policing examining crime control effectiveness, now includes more than 130 studies, close to 60% of which were published in the past 15 years as of August 2015. This suggests we have a sufficiently large and growing evidence base from which to more closely examine the effectiveness of various policing approaches. As will be described, it is not only that we have amassed a number of high-quality studies of policing but also that a sizable proportion of these studies provide evidence that the police can be effective in reducing crime.

To answer the question posed in the chapter title, there is a fairly large collection of studies

Telep, C. W. (Forth.). Evidence-based policing: Does it reduce violence? In P. Sturmey (ed.), *The Wiley handbook of violence and aggression, vol. 3: societal interventions.* Hoboken, NJ: John Wiley & Sons.

# What works in reducing violence?

☐ Hot spots policing

☐ Directed patrol to reduce gun violence

☐ Focused deterrence strategies to reduce gang/drug market violence

☐ Problem-oriented policing
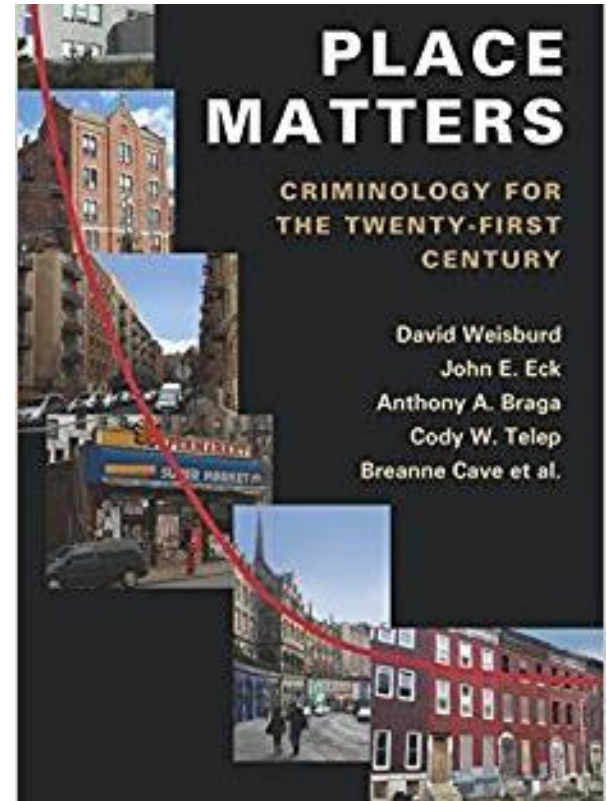
# Learning about what works in reducing violence

- There are lots of <u>free</u> resources to learn more about the policing evidence base
  - Center for Evidence-Based Crime Policy (CEBCP)
    - [www.cebcp.org](http://www.cebcp.org)
    - Evidence-Based Policing Matrix
    - What Works in Policing?
  - Campbell Collaboration
  - College of Policing Crime Reduction Toolkit
  - CrimeSolutions.gov
  - And more!

# Examples of using the resources

| Resource | Strategy example |
|---|---|
| Evidence-Based Policing Matrix | Hot spots policing |
| What Works in Policing? | Directed patrol to reduce gun violence |
| Campbell Collaboration | Focused deterrence |
| CrimeSolutions.gov Crime Reduction Toolkit | Problem-oriented policing |

# Evidence-Based Policing Matrix

(Lum, Koper, & Telep, 2011)

- Research to practice translation tool that provides a visual of rigorous crime control evaluation evidence

- [www.policingmatrix.org](www.policingmatrix.org)
  - Interactive version of the Matrix
  - Pages for every study included in the Matrix
  - Matrix Demonstration Project
  - Videos and training resources on evidence-based policing

# Evidence-Based Policing Matrix
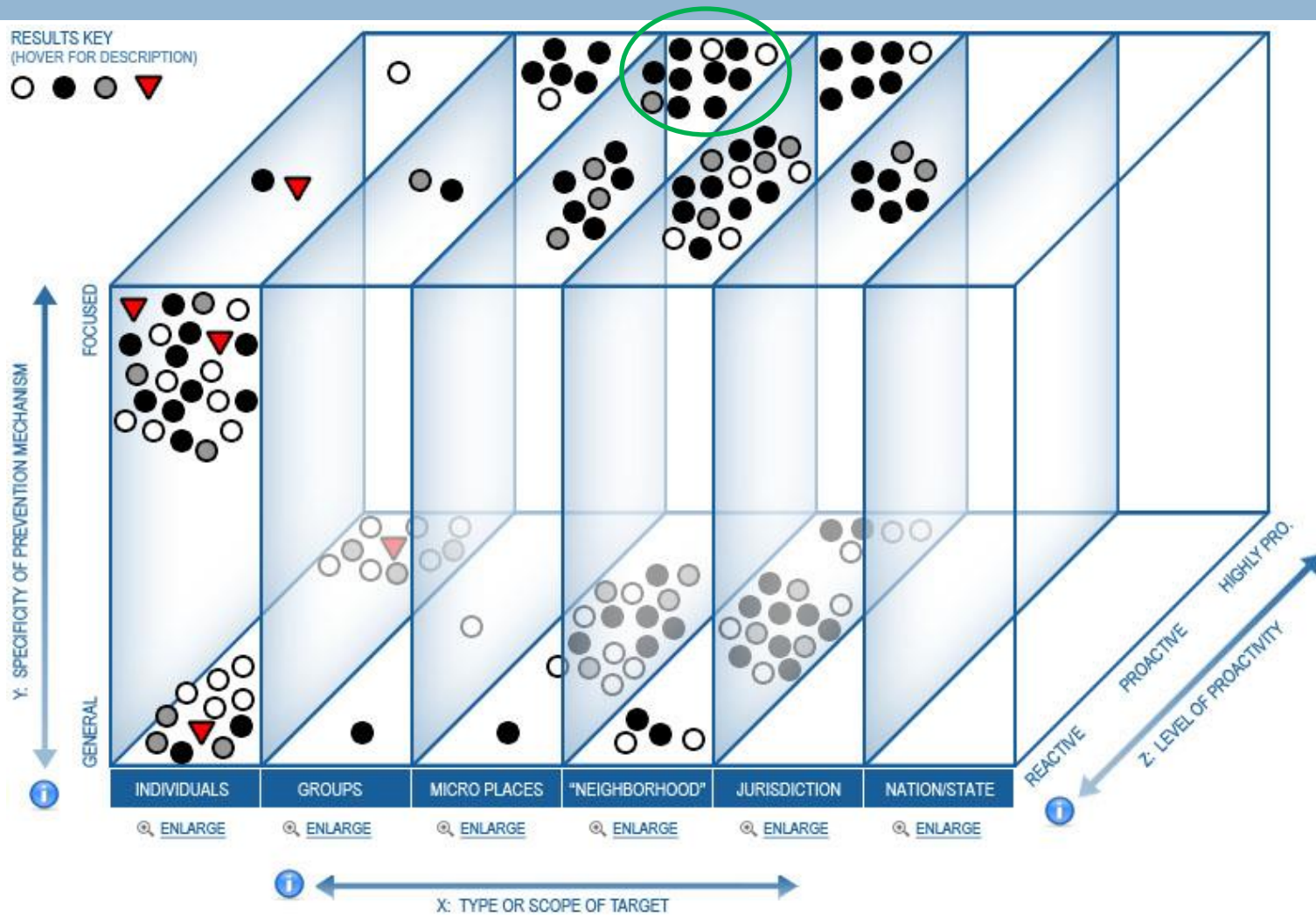


Significant Backfire    ○ Non-Significant Finding    ● Mixed Results    ● Significant /Effective

# Crime is highly concentrated on street blocks
(Telep & Weisburd, in press)

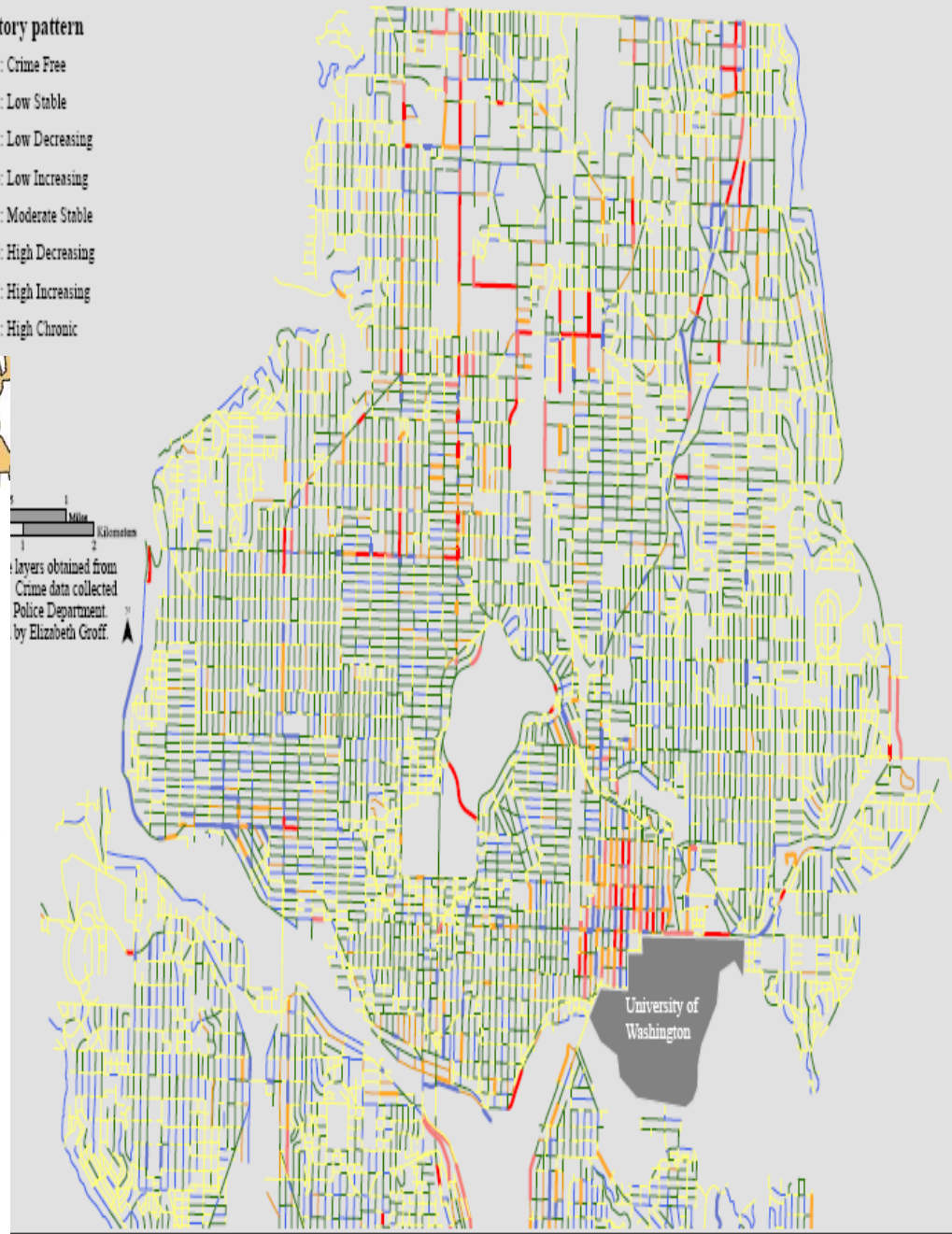| Study | Location | Outcome | 50% Concentration |
|---|---|---|---|
| Sherman (1987); Sherman et al. (1989) | Minneapolis, MN | Calls (address) | 3.3% (50.4%) |
| Pierce et al. (1988) | Boston, MA | Calls (address) | 3.6% (50.1%) |
| Weisburd et al. (2004) | Seattle, WA | Incidents | 4-5% |
| Andresen & Linning (2012) | Ottawa, ON | Incidents | 1.7% |
| | Vancouver, BC | Calls | 5.0% |
| Weisburd et al. (2012) | Seattle, WA | Incidents | 4.7-6.1% |
| Weisburd & Amram (2014) | Tel-Aviv-Yafo, Israel | Incident | 4.5% |
| Weisburd et al. (2014) | New York, NY | Incidents | 5% (50.8-52.6%) |
| Curman et al. (2015) | Vancouver, BC | Index crime calls | 7.8% |
| de Melo et al. (2015) | Campinas, Brazil | Incidents | 3.7% |
| Weisburd (2015) | 5 large cities | Incidents | 4.2%-6.0% |
| Weisburd (2015) | 3 small cities | Incidents | 2.1%-3.5% |
| Steenbeek & Weisburd (2016) | The Hague, Netherlands | Incidents | 6.3%-7.3% |
| Andresen et al. (in press) | Vancouver, BC | Index crime calls | 3.3-4.4% |
| Gill et al. (in press) | Brooklyn Park, MN | Incidents | 2% |

# Street by street variability in Seattle

Trajectory pattern
- 1: Crime Free
- 2: Low Stable
- 3: Low Decreasing
- 4: Low Increasing
- 5: Moderate Stable
- 6: High Decreasing
- 7: High Increasing
- 8: High Chronic
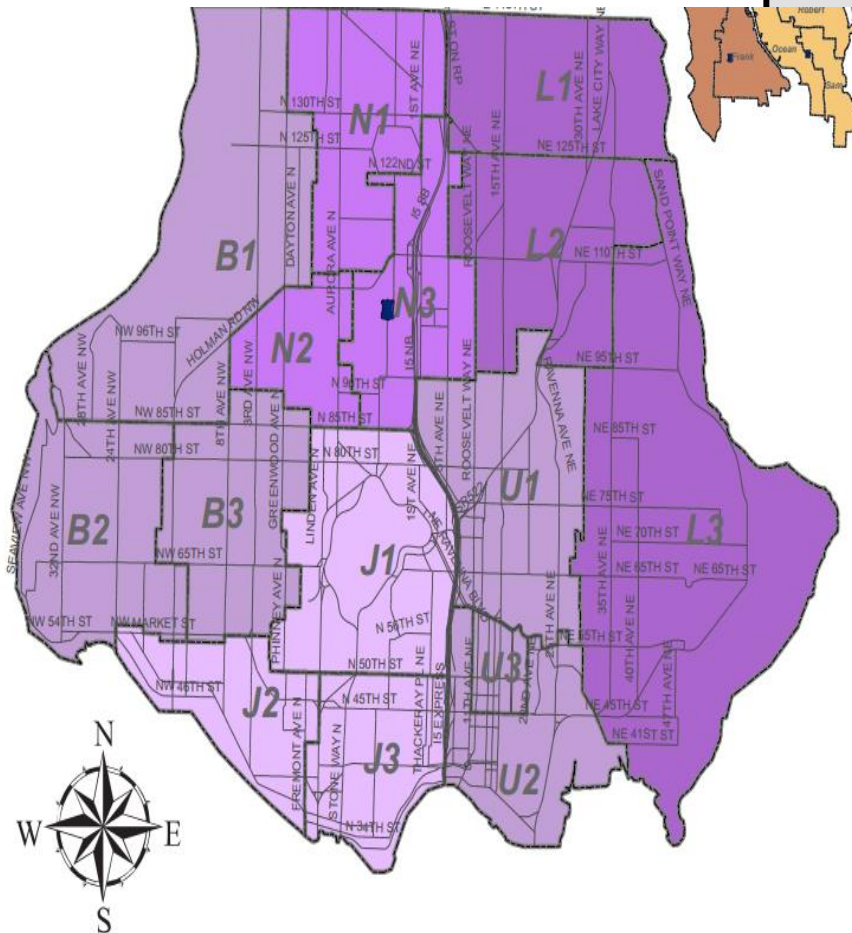
# Hot spots policing

Final Hot Spot Locations

Legend
- Treated Hot Spot
- Non Treated Hot Spot

□ Focusing extra police resources on small locations where crime is concentrated

□ Strong evidence of effectiveness from series of randomized trials (Braga et al., 2014)

□ Strategies vary from simply increasing presence to using analysis to problem solve
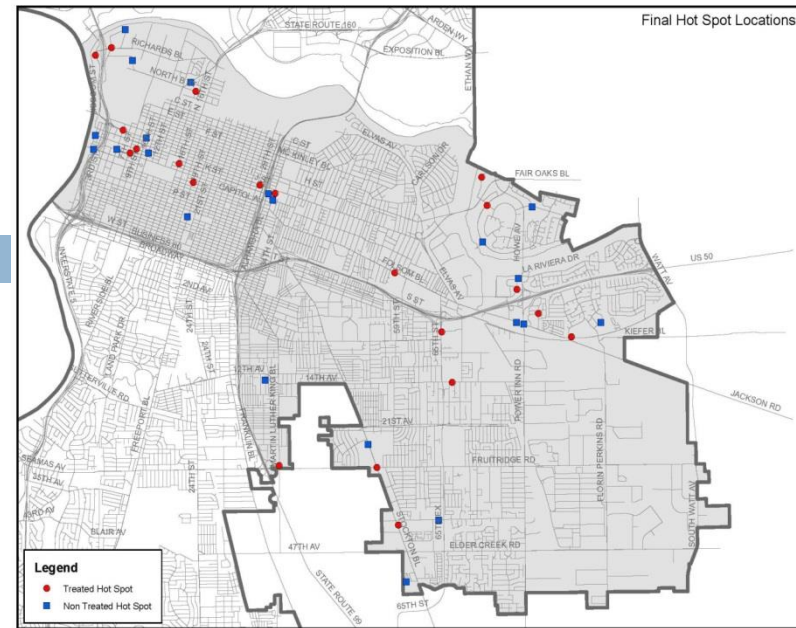
□ In Sacramento, officers visiting hot spots for about <u>15 minutes</u> every 2 hours, associated with declines in total calls and serious crime incidents (Telep, Mitchell, & Weisburd, 2014)

# What Works in Policing? (CEBCP)

- Summary of the evaluation literature by program type
  - What is it? What is the evidence? What should the police be doing?

- http://cebcp.org/what-works-in-policing/

| What Works? | What's Promising | What Doesn't Work? | What Do We Need to Know More About? |
|---|---|---|---|
| Hot spots policing | Community policing | Standard model policing tactics | Broken windows policing |
| Problem-oriented policing | CCTV | Second responder programs | Increasing department size |
| Focused deterrence strategies | | D.A.R.E | Police technology |
| **Directed patrol for gun violence** | | | |

# Directed patrol for gun violence
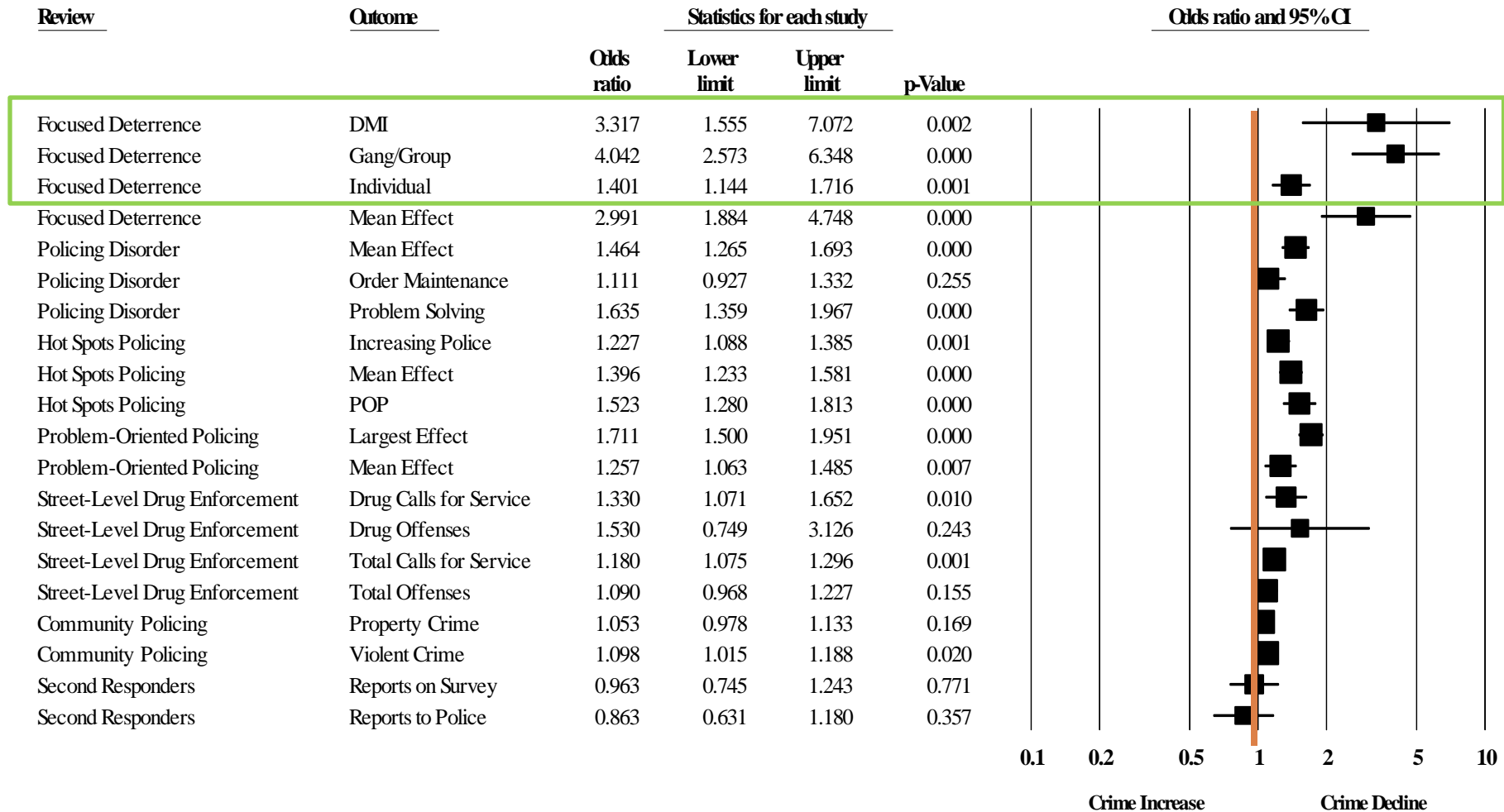
http://cebcp.org/directed-patrol-for-gun-violence/

- What is it?
  - Intensive patrol in high gun crime areas
  - Similar to hot spots policing, but target areas are usually larger

- What is the evidence?
  - Generally positive evidence from quasi-experimental studies (Koper & Mayo-Wilson, 2012)

- What should police be doing?
  - Targeted offender approach more effective than increasing vehicle stops in Indianapolis (McGarrell et al., 2001)

# Campbell Collaboration

- Library of systematic reviews of the rigorous research evidence on 40+ criminal justice topics
  - 15+ reviews relevant to policing on topics such as hot spots policing, problem-oriented policing, displacement, and stress management programs

- [www.campbellcollaboration.org](http://www.campbellcollaboration.org)
  - Search by Crime and Justice Coordinating Group
  - Campbell Library includes reviews and plain-language summaries of the findings

# Review of policing systematic reviews

(Telep & Weisburd, 2016)

| Review | Outcome | Statistics for each study | | | | Odds ratio and 95% CI |
|---|---|---|---|---|---|---|
| | | Odds ratio | Lower limit | Upper limit | p-Value | |
| Focused Deterrence | DMI | 3.317 | 1.555 | 7.072 | 0.002 | |
| Focused Deterrence | Gang/Group | 4.042 | 2.573 | 6.348 | 0.000 | |
| Focused Deterrence | Individual | 1.401 | 1.144 | 1.716 | 0.001 | |
| Focused Deterrence | Mean Effect | 2.991 | 1.884 | 4.748 | 0.000 | |
| Policing Disorder | Mean Effect | 1.464 | 1.265 | 1.693 | 0.000 | |
| Policing Disorder | Order Maintenance | 1.111 | 0.927 | 1.332 | 0.255 | |
| Policing Disorder | Problem Solving | 1.635 | 1.359 | 1.967 | 0.000 | |
| Hot Spots Policing | Increasing Police | 1.227 | 1.088 | 1.385 | 0.001 | |
| Hot Spots Policing | Mean Effect | 1.396 | 1.233 | 1.581 | 0.000 | |
| Hot Spots Policing | POP | 1.523 | 1.280 | 1.813 | 0.000 | |
| Problem-Oriented Policing | Largest Effect | 1.711 | 1.500 | 1.951 | 0.000 | |
| Problem-Oriented Policing | Mean Effect | 1.257 | 1.063 | 1.485 | 0.007 | |
| Street-Level Drug Enforcement | Drug Calls for Service | 1.330 | 1.071 | 1.652 | 0.010 | |
| Street-Level Drug Enforcement | Drug Offenses | 1.530 | 0.749 | 3.126 | 0.243 | |
| Street-Level Drug Enforcement | Total Calls for Service | 1.180 | 1.075 | 1.296 | 0.001 | |
| Street-Level Drug Enforcement | Total Offenses | 1.090 | 0.968 | 1.227 | 0.155 | |
| Community Policing | Property Crime | 1.053 | 0.978 | 1.133 | 0.169 | |
| Community Policing | Violent Crime | 1.098 | 1.015 | 1.188 | 0.020 | |
| Second Responders | Reports on Survey | 0.963 | 0.745 | 1.243 | 0.771 | |
| Second Responders | Reports to Police | 0.863 | 0.631 | 1.180 | 0.357 | |

0.1  0.2  0.5  1  2  5  10

Crime Increase          Crime Decline

# Focused deterrence strategies

(Braga & Weisburd, 2012)

- Sending a strong deterrent message to high-rate violent offenders operating in gangs or drug markets

  - If offending continues then all legal levers will be pulled

- Popularized by Operation Ceasefire in Boston (Braga et al., 2001)

### Youth homicide in Boston, 1976–2006

Homicides in Boston decreased between 1996 and 2000 during 'Ceasefire Intervention.' Homicides have increased since the program ended.

**Victims ages 24 and under**

Ceasefire Intervention 1996-2000
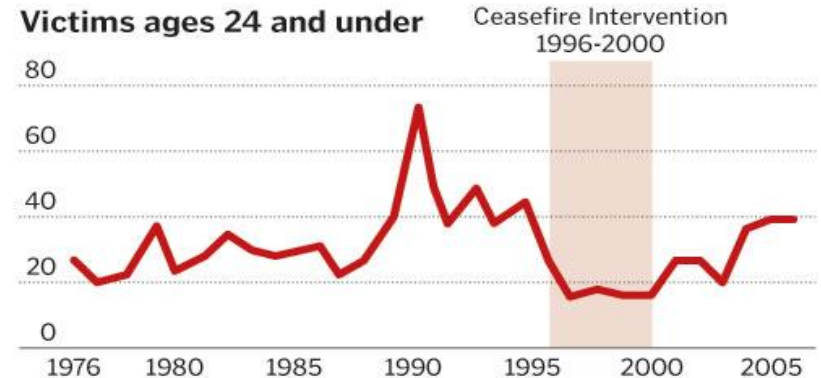


Source: Anthony Braga, David Hureau and Christopher Winship, Kennedy School of Government, Harvard University: Losing Faith? Police, Black Churches and the Resurgence of Youth Violence in Boston 2008.

DENNIS LEUNG/OTTAWA CITIZEN

- Need multiple stakeholders and analysis of dynamics of violence

# CrimeSolutions.gov

- National Institute of Justice, U.S. Department of Justice

- Can search by programs, and practices with clear evidence ratings based on expert assessments

| View All Practices (9) | View Effective (1) | View Promising (7) | View No Effects (4) | Filter Results |
|---|---|---|---|---|

Showing 1 to 9 of 9 entries    Records per Page: 10 ▾

| Title | Evidence Rating (by Outcomes) ▾ | Summary |
|---|---|---|
| Hot Spots Policing | ✅ Crime & Delinquency - Multiple crime/offense types | Used by many U.S. police departments, hot spots policing strategies focus on small geographic areas or places, usually in urban settings, where crime is concentrated. The practice is rated Effective. The analysis suggests that hot spots policing efforts that rely on problem-oriented policing strategies generate larger crime reduction effects than those that apply traditional policing strategies in crime hot spots. |
| Closed Circuit Television (CCTV) Surveillance | ☑ Crime & Delinquency - Multiple crime/offense types  ☑ Crime & Delinquency - Property offenses  ⊘ Crime & Delinquency - Violent offenses | Public surveillance systems include a network of cameras and components for monitoring, recording, and transmitting video images. The ultimate goal of installing public surveillance cameras is to reduce both property and personal crime. The practice was rated Promising for reducing overall crime and property offenses (i.e. vehicle crimes), but rated No Effects on impacting violent crime. |
| Focused Deterrence Strategies | ☑ Crime & Delinquency - Multiple crime/offense types | Problem-oriented policing strategies that follow the core principles of deterrence theory. The practice is rated Promising. The evaluation found that focused deterrence strategies (also referred to as "pulling levers" policing) can reduce crime. |
| Neighborhood Watch | ☑ Crime & Delinquency - Multiple crime/offense types  ⊘ Victimization - Multiple victimization outcomes | Also known as block watch, apartment watch, home watch, and community watch, these programs involve citizens trying to prevent crime in their neighborhood or community. Citizens remain alert for suspicious activities and report those activities to the police. The practice is rated Promising in reducing crime in the control area compared to the experimental area; and rated No Effects in reducing victimization. |
| Problem-Oriented Policing | ☑ Crime & Delinquency - Multiple crime/offense types | These analytic methods are used by police to develop crime prevention and reduction strategies. The practice is rated Promising and led to a significant decline in crime and disorder. |
| Reducing Gun Violence | ☑ Crime & Delinquency - Violent offenses | Reducing gun violence is a persistent public policy concern for communities, policymakers and leaders. To reduce gun violence, several strategies have |

# Crime Reduction Toolkit

☐ What Works Centre for Crime Reduction (College of Policing) toolkit based on systematic reviews: http://whatworks.college.police.uk/

# Problem-oriented policing/S.A.R.A. model

- Problem solving and incorporating analysis seems to work especially well in conjunction with hot spots policing
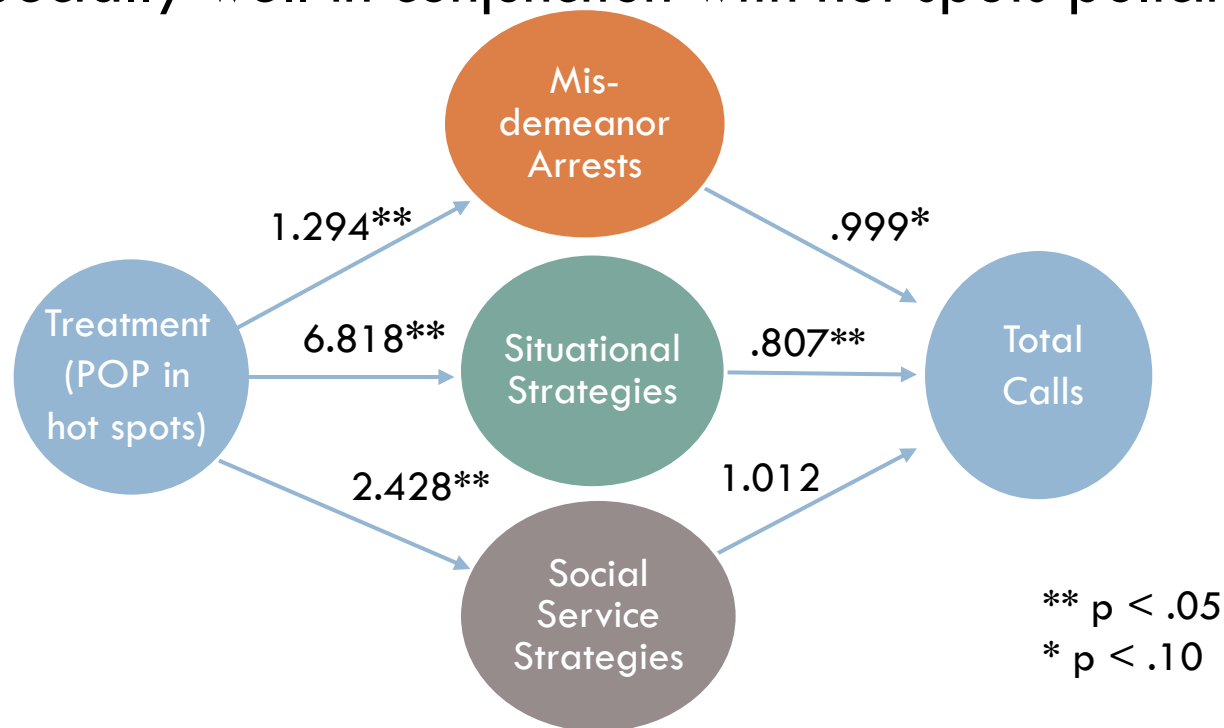


- Example of problem-oriented hot spots policing in Lowell, MA (Braga & Bond, 2008: 595)

# Even more resources!

- Global Policing Database (University of Queensland): www.gpd.uq.edu.au

- Evidence-Based Policing Mobile App (Police Foundation): Android, iOS, Windows devices: www.policefoundation.org

- Center for Problem-Oriented Policing: www.popcenter.org

# Last but not  least!
# Societies of Evidence-Based Policing

☐ Canadian: www.can-sebp.net

☐ American: www.americansebp.com

☐ UK: www.sebp.police.uk

☐ Australia and New Zealand: www.anzsebp.com

# Next steps for EBP

1. Expanding the scope of evidence-based policing
   - ❑ Building fair and effective policing

2. Expanding data sources used for EBP
   - ❑ Moving beyond just official police data

3. Expanding users of evidence-based policing
   - ❑ Examining and building receptivity to research

# Expanding the scope of EBP (Telep, 2016)

- Need to think more broadly about building the evidence base for a variety of outcomes/questions:
  - How can we increase citizen perceptions of police legitimacy?
  - How can we reduce officer use of force while maintaining officer safety?
  - How can body cameras and other technologies increase transparency and improve accountability?

- Building evidence can be more challenging here
  - How do you measure desired outcomes?
  - How do you design rigorous studies?

# U.S. Google News searches: "police" vs. "crime" 2008-2015
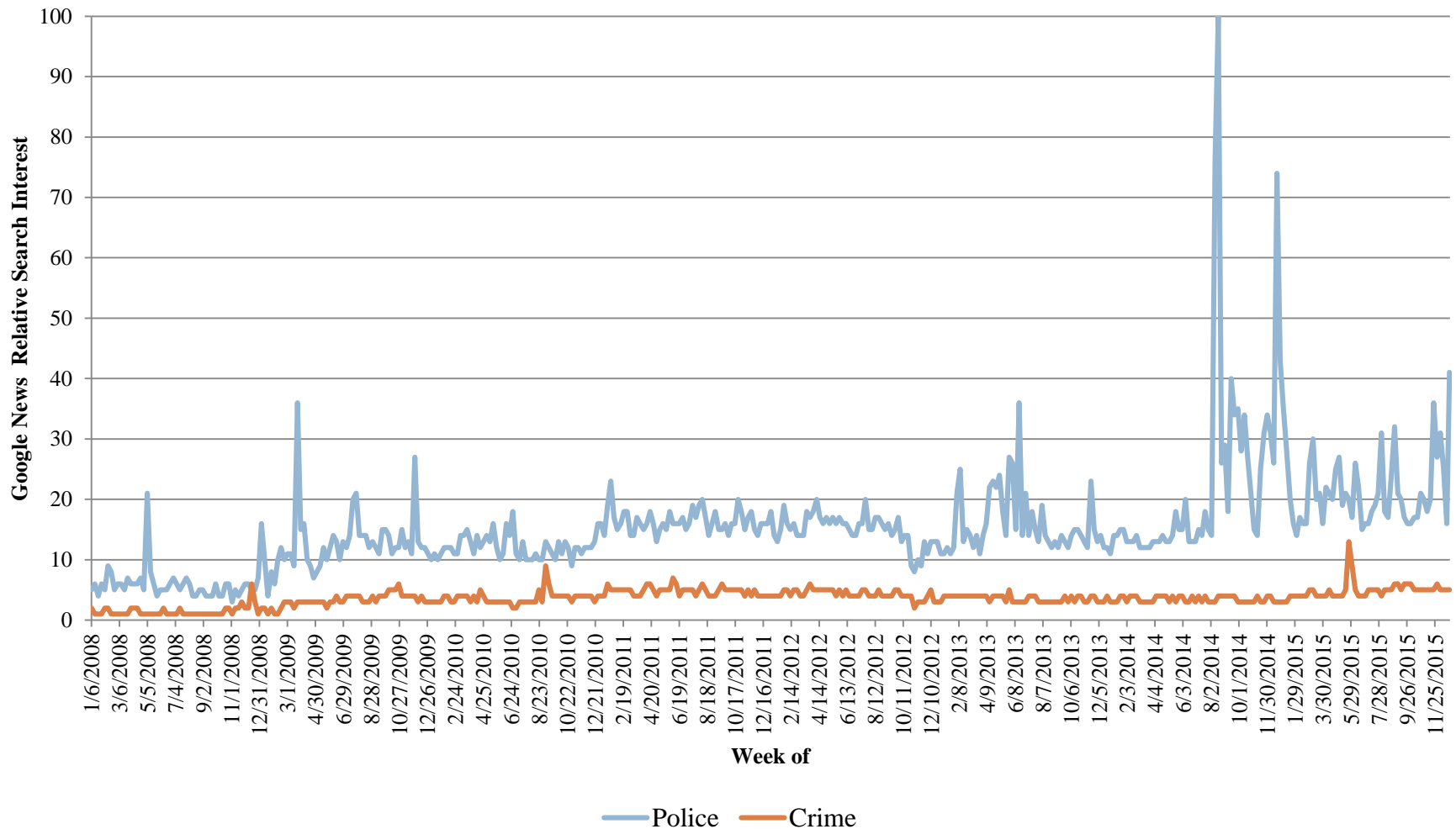
# Procedural justice in crime hot spots

(Weisburd, Telep, Cave, et al., in progress)

- Multi-site randomized trial beginning in Tucson, AZ (July 1) and soon expanding to three other U.S. cities:

  - Can the development of a hot spots policing program with a strong procedural justice component (i.e. training and reinforcement in the field) affect officer behavior and enhance citizen perceptions of police legitimacy?

  - Can the program improve the effectiveness of hot spots policing, leading to greater long-term crime reduction?

# Expanding data sources (Telep & Hibdon, 2017)

☐ Call or incident counts alone may not tell the whole story when it comes to crime hot spots

☐ Thinking of utilizing other data sources
  ◻ Population data to create rates for hot spots
  ◻ Data on "social problems" broadly defined (health, school discipline/truancy, disorder)
  ◻ Sentencing data to assign harm indexes to hot spots

# Using emergency medical services data
(Hibdon, Telep, & Groff, in press)

□ Comparing the location of drug activity hot spots with police vs. emergency medical service (ambulance) data in Seattle, WA

  ◻ Concentration and stability in both data sets

  ◻ BUT different spatial patterns in the two data sets

  ◻ Police data are not telling the whole story when it comes to problematic drug use

□ Currently examining the distribution of police calls vs. emergency medical service calls for violence

# Expanding users:
# Police officer receptivity to research

- Once we do have an evidence base, need to make police aware of and open to using it

- With the crime control evidence base, surveys suggest officers know what works, but also often think ineffective strategies reduce crime

| Strategy | Very Effective % | | Effective % | | Somewhat Effective % | | Not Effective % | |
|---|---|---|---|---|---|---|---|---|
| | Officers | Chiefs | Officers | Chiefs | Officers | Chiefs | Officers | Chiefs |
| Hot spots policing | 13.7 | 28.9 | 30.0 | 55.6 | 28.7 | 15.6 | 14.9 | 0 |
| Random preventive patrol | 9.5 | 6.7 | 28.5 | 15.6 | 38.6 | 51.1 | 8.7 | 24.4 |

Officers n = 1,107 ; Chiefs n = 45          (Telep & Winegar, 2016; Telep & Lum, 2014)

# Are police familiar with "evidence-based policing?"

☐ Have you ever heard of the term "evidence-based policing" (EBP)?

| Sample | Heard of EBP | Provided a Definition |
|---|---|---|
| **Officers** (4 agencies, n = 1094) | 304 (27.8%) | 250 (22.9%) |
| **Supervisors/managers** (Oregon, n = 163) | 106 (65.0%) | 106 (65.0%) |
| **Chiefs/leaders** (Oregon, n=104) | 86 (87.8%) | 72 (83.7%) |
| **Total** (n=1355) | 496 (36.6%) | 428 (31.6%) |

(Telep & Somers, under review)

# Key words in police officer definitions

| Key Word | Percentage Of Definitions That Included… | | | |
|---|---|---|---|---|
| | **Officers** | **Supervisors** | **Chiefs** | **Total** |
| Statistics/data* | 27.2 | 38.7 | 52.8 | 34.3 |
| Effective/what works* | 18.4 | 34.9 | 29.2 | 24.3 |
| Research/empirical | 19.6 | 31.1 | 25.0 | 23.4 |
| Evaluation/analysis | 12.4 | 9.4 | 15.3 | 19.2 |
| Specific places/people | 21.2 | 17.0 | 15.3 | 12.1 |
| Science/scientific* | 5.2 | 8.5 | 13.9 | 7.5 |
| Prevention/proactive | 7.2 | 5.7 | 6.9 | 6.8 |
| Forensics/case evidence* | 12.4 | 7.5 | 1.4 | 9.3 |

* $\chi^2$ p < .05

# How "correct" are police definitions?

| Sample | No answer % | No match % | Partial match % | Total match % |
|--------|------------|-----------|-----------------|---------------|
| Officers | 5.2 | 32.0 | 59.6 | 3.2 |
| Supervisors | 0.9 | 20.8 | 73.6 | 4.7 |
| Chiefs | 2.8 | 15.3 | 73.6 | 8.3 |
| Total | 3.7 | 26.4 | 65.4 | 4.4 |

$\chi^2 = 16.6$ (p < .05) Note: no answer and no match were combined for the $\chi^2$ test

# Moving forward with receptivity

- Making research accessible and digestible
  - Officer education
  - Practitioner-friendly reports
  - Translation tools

- Making evidence-based policing a reality
  - Definitions matter- building a common language between police and researchers
  - Balancing research evidence and officer experience (Willis & Mastrofski, 2014, 2016)
  - Providing evidence quickly on questions that matter to police

# Summary

- There is a strong evidence base for strategies to reduce violence
  - Place matters!

- There are many translation tools for learning about "what works?" in policing
  - Freely available online from government, nonprofit, and academic websites

- Important questions to consider in moving forward with evidence-based policing
  - Outcomes, data, and receptivity

# Thank you

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