

The graphic features a central dark blue circle containing the text 'UIC' in light blue. This circle is surrounded by concentric rings of yellow and red. From the right side of the circle, a thick yellow line extends upwards and to the right, and a thick red line extends downwards and to the right. The background is a solid light blue.

**UIC**

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OCTOBER 7, 2021

# Law Enforcement Epidemiology Project

Alfreda Holloway-Beth, PhD

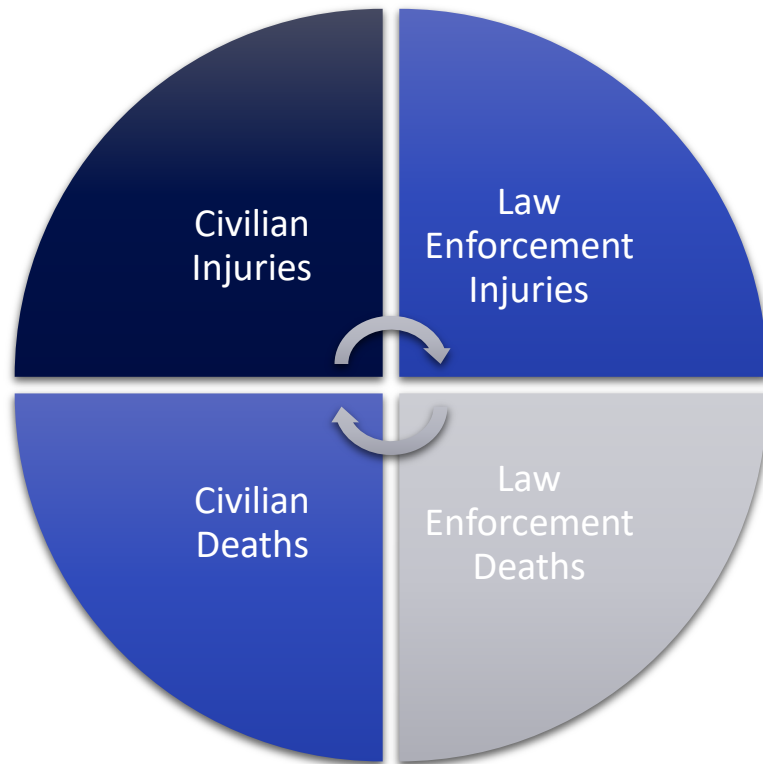
Lee Friedman, PhD



LET THE PEOPLE KNOW THE FACTS  
AND THE COUNTRY WILL BE SAFE.

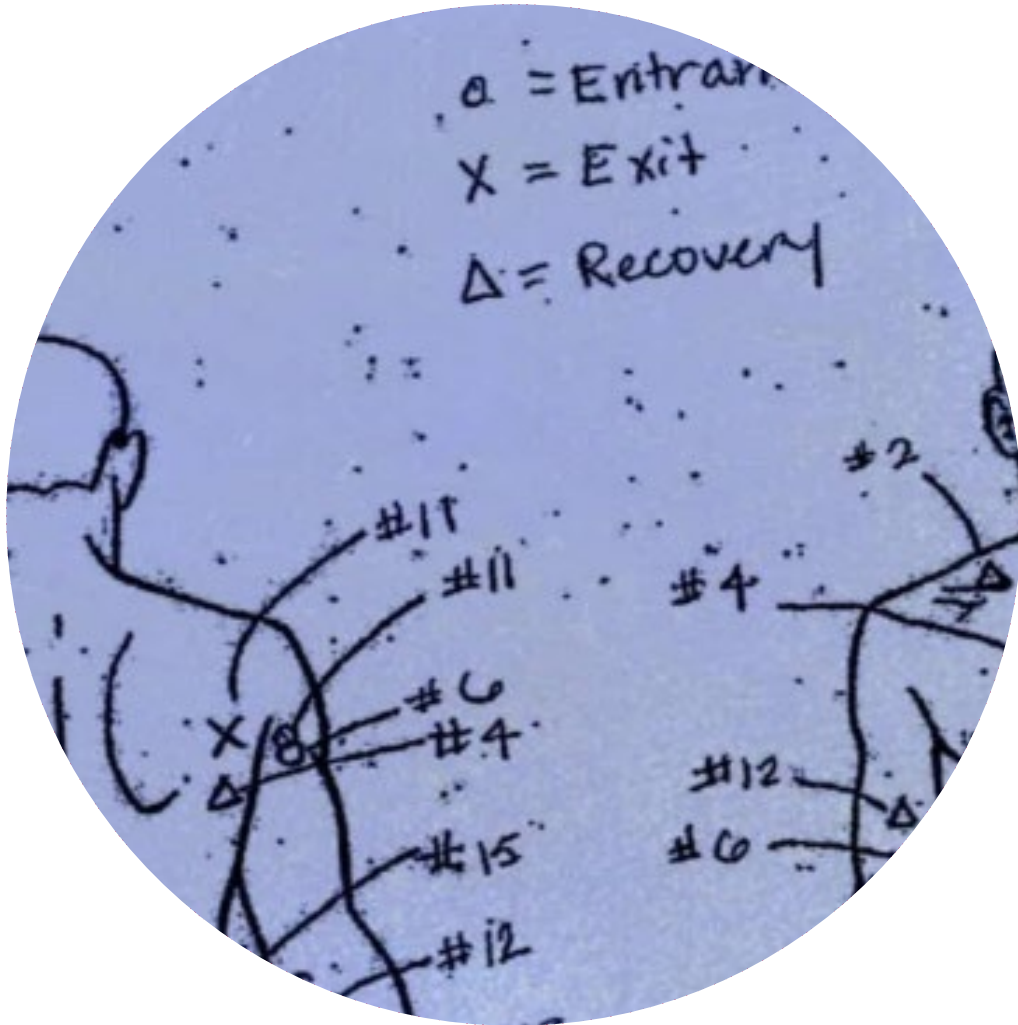
ABRAHAM LINCOLN

# Law Enforcement Epidemiology



Law enforcement epidemiology is the study of the acute and long-term effects of injuries and death during interaction action with law enforcement. It assesses mechanism and intent of injury and mortality among law enforcement, suspect, and bystander using data from electronic medical records, worker's compensation claims, and survey data.





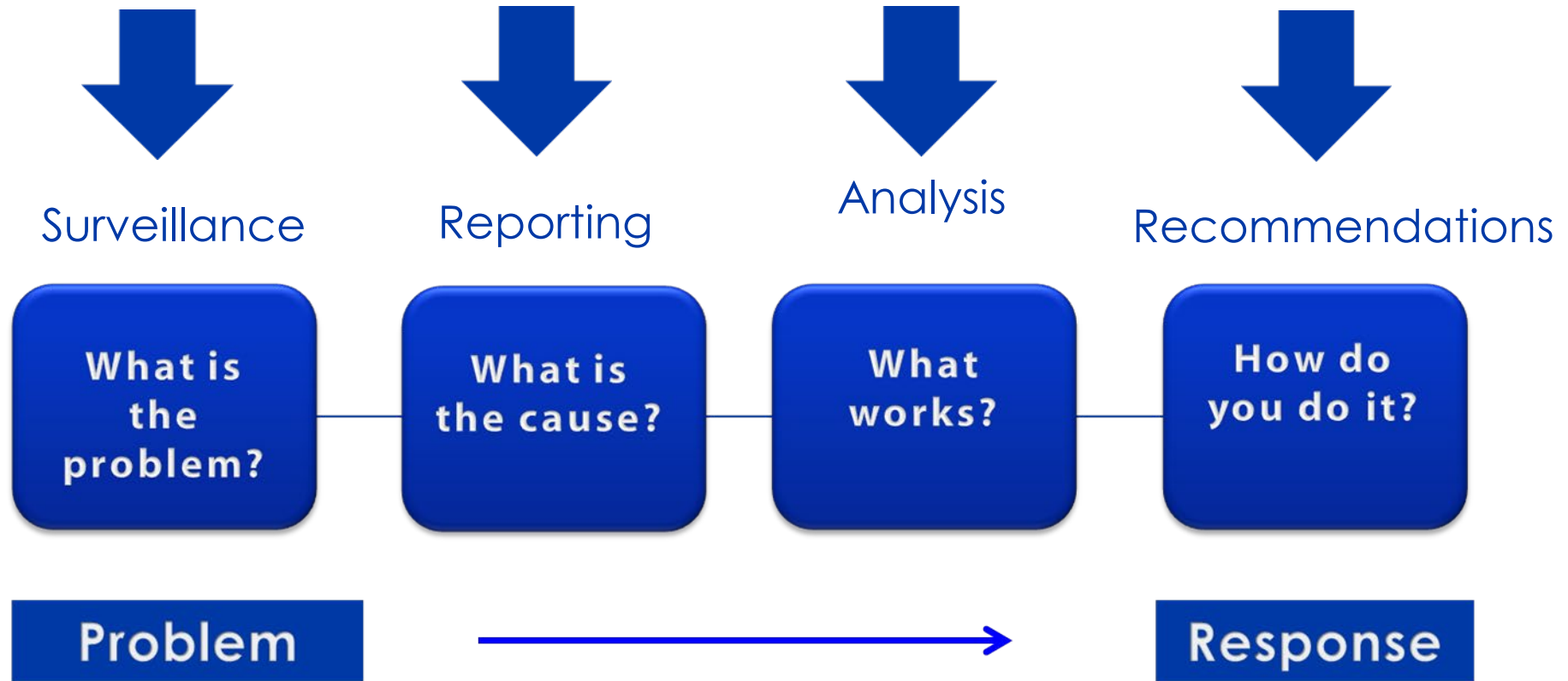
# Project

## Aims

To build a comprehensive surveillance system to better characterize the magnitude of civilian and law enforcement injuries that occur each year in the U.S. and to guide policy reform that addresses police use of force tactics and strategies to build community trust in the police.

# A Public Health Approach to Law Enforcement Epidemiology

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# Law Enforcement Epidemiology Project at the University of Illinois at Chicago

## Project Goal

To provide surveillance data for the U.S., Illinois and Chicago on civilians injured during interactions with law enforcement and officers injured on the job. Because comprehensive data on civilian non-fatal and fatal injuries caused during interactions with law enforcement is lacking in the U.S., this site primarily focuses on civilian injuries.

[policeepi.uic.edu](http://policeepi.uic.edu)

## Objectives

### •Surveillance

- Establish an active and sustainable surveillance program that will serve as a model for other states across the country.

### •Reporting

- Identify barriers to reporting.

### •Analysis

- Describe long-term impacts on individuals following an injury caused by law enforcement personnel.

### •Recommendations

- Develop policy recommendations for police reform

# Public Health Surveillance Defined

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The ongoing, systematic collection, analysis, and interpretation of health-related data essential to planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those responsible for prevention and control

Adapted from: Thacker SB, Birkhead GS. Surveillance. In: Gregg, MB, ed. Field epidemiology. Oxford, England: Oxford University Press; 2008.



# Problem with Existing Public Health Surveillance Data

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Nationally, surveillance data relating to civilian injuries has several limitations:

- Undercounts both non-fatal and fatal cases by up to 50%+
- Police sources underestimate severity of injury
- Provide no clinical information about non-fatal injuries
- Provide no data on long-term impacts on individuals and communities
- No investment in research focusing on civilian injuries
- Little is known about risk factors and differences in control tactics because of paucity of research
- Focus is almost exclusively on firearm related deaths

# Data Sources for Public Health Surveillance



## Civilian Data

### State & Local Data

- Ambulance
- Police Crash
- Hospital Data
- Death Records
- Media Reports
- Court & Investigation Data

### National

- Ambulance
- Police Crash
- Use of Force
- Hospital Data
- Death Records
- Arrest Related Deaths
- Mortality in Correctional Institutions
- Media Reports

## Law Enforcement Personnel Data

### Local Data

- Police Crash Reports
- Hospital Discharge
- Worker's Compensation Data

### National Data

- BLS Non-Fatal Injuries
- BLS Fatal Injuries
- NIOSH Death Records
- FBI Fatality Data

[policepi.uic.edu](http://policepi.uic.edu)



## Law Enforcement Epidemiology Project

Snapshot: the last 20 years of law enforcement activities in the United States

**1,500,000**

Civilians have been injured during contact with law enforcement.

**8,768**

At least 8,768 civilians have been killed by law enforcement officers.

**300,000**

Law enforcement officers have been injured after experiencing an assault on the job.



# Law Enforcement Epidemiology

**Law Enforcement Epidemiology Project**  
School of Public Health

UI HEALTH IS UIC'S ACADEMIC HEALTH ENTERPRISE

**CIVILIAN DATA**

- Data Sources
- Facts and Figures**
- Research
- Policy

● Data on Civilian Injuries Caused by Law Enforcement

## Facts and Figures on Injuries Caused by Law Enforcement

**Summary of U.S.-level data, 2001-2018**

In the U.S. during a given year, an estimated 1 million civilians experience police threat or use of force resulting in a conservative estimate of 80,000 non-fatal injuries requiring hospital treatment and 600-1000 deaths. Both white Hispanics and Black/African-Americans are twice as likely to experience threat or use of force during police initiated contact (Bureau of Justice Statistics). Based on CDC data, Black African-Americans are more than twice as likely to be killed and almost 5-times more likely to suffer an injury requiring medical care at a hospital compared to white non-Hispanics.

[Civilian deaths data](#)
[Civilian injuries data](#)
[Download the data set](#)

### Summary of Chicago, Cook County and Illinois hospital data, 2016-2020

This report summarizes civilian injuries treated in Illinois hospitals between January 2016 and September 2020. For every death, there are approximately 60-80 non-fatal injuries that require treatment in a hospital, 13% of the civilians suffered traumatic brain injuries, which have potential long-term severe outcomes. The average annualized crude incidence rates were 6.8 per 100,000 residents of Chicago, 5.4 per 100,000 residents of suburban Cook County (excluding Chicago), and 5.7 per 100,000 residents of the remainder of the State of Illinois. White civilian injuries caused by law enforcement impacts all citizens in the State, African-Americans are consistently and disproportionately the victims of both fatal and non-fatal injuries caused by law enforcement. The injury incidence rates among African-Americans are 5-12 times higher compared to white non-Hispanics depending on the region of residence.

<a href="#">Read the report</a>	<a href="#">Injury data</a>	<a href="#">Types of injuries</a>
<a href="#">Causes of injuries</a>	<a href="#">Hospital treatment &amp; outcomes</a>	<a href="#">Crude incidence rate</a>

**School of Public Health**

**CIVILIAN DATA**

- Data Sources**
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● Data on Civilian Injuries Caused by Law Enforcement

## Data Sources on Injuries Caused By Law Enforcement

The Law Enforcement Epidemiology Project at the University of Illinois Chicago School of Public Health aims to provide a framework for a comprehensive surveillance system based on existing public health data sources that can be implemented in nearly all U.S. states immediately to augment police reports and Bureau of Justice Statistics data on civilians injured by law enforcement. We identify useful data sources, describe their strengths and limitations, data dictionaries and SAS code for identifying cases.

### State and Local Level Data

We identify useful data sources, describe their strengths and limitations, data dictionaries and SAS code for identifying cases. Click on each tab to view different resources:

<b>Ambulance Data</b>	Police Crash Data	Hospital Data	Death Records	Media Reports	Court & Investigation Data
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#### Prehospital Ambulance Runs

The EMS prehospital run data includes ambulance run reports for every emergency prehospital transport, interhospital transport or refusal of care incident for every participating vehicle service provider. The EMS database typically includes the following variables: total call time, mode of transport, emergency level of transport (Non-Emergent, Downgraded-No Lights/Sirens, Upgraded-L/S, Emergent-L/S), type of extrication used, factors that delayed in EMS access or detection, protective equipment in car and passenger location in vehicle for motor vehicle crashes, patient status information (body part injured, pupil dilation, pulse, blood pressure, Glasgow coma score, skin temperature, respiratory rate, lung sounds, loss of consciousness, shock, cardiac arrest, drugs or alcohol, allergies, symptoms, and medical history), and treatment provided in the field. Some states provide incident location information.

Participating jurisdictions and agencies varies by State and locality. Typically municipal fire departments participate along with volunteer and private ambulance services. Most states conform with national coding standards set by NEMSIS which provides a level of consistency across states and jurisdictions.

- State level data can be acquired from your state department of public health.
- Local county, municipal and agency level data can be acquired by contacting the local department of public health, municipal fire department or private ambulance agency.

[NEMSIS V3.0 Data Dictionary](#)  
[Civilian Injury Case Definition for EMS data](#)  
[Illinois Department of Public Health Contact](#)

### National Level Data

<b>Ambulance Data</b> NEMSIS compiles national EMS data. Deidentified data is available upon request.	<b>Police Crash Data</b> NHTSA samples police reports through the GES sample. GES data is available upon request.	<b>Use of Force Data</b> Police Public Contact Survey provides data on police stops, use of force and outcomes.
<b>Hospital Data</b> A national sample of hospitals (NEISS). Go to Nonfatal Injury Reports and select "Legal Intervention" cases.	<b>Death Records (Simple)</b> Go to Fatal Injury Reports and select "Legal Intervention" cases.	<b>Death Records (Detailed)</b> Go CDC-WONDER multiple cause of death data to get more detailed information on cause.
<b>Arrest Related Deaths</b> Arrest related death (ARD) program compiles law enforcement agency reported deaths.	<b>Mortality in Correctional Institutions</b> Mortality in Correctional Institutions provides data on all causes of death while in custody.	<b>Media Reports</b> To date, the Washington Post has one of the most comprehensive datasets on police involved deaths from 2015 forward.



- CIVILIAN DATA
- Data Sources
- Facts and Figures
- Research**
- Policy

• Data on Civilian Injuries Caused by Law Enforcement • Research on Injuries Caused by Law Enforcement

## Research on Injuries Caused by Law Enforcement

The Law Enforcement Epidemiology Project at the University of Illinois Chicago aims to conduct novel research on risk factors and long term outcomes following an injury caused during contact with law enforcement.

### Completed Research

#### Comprehensive Surveillance System

We have described a framework for a comprehensive surveillance system based on existing public health data sources that can be implemented immediately to augment police reports and data from the Bureau of Justice Statistics.

#### Comparison of National Data Systems

We also characterized the substantial differences in reported numbers and rates across existing federal surveillance tools.

#### High Risk Groups

We found that legal intervention injuries had more severe outcomes and disproportionately impacted African Americans, persons with motor disabilities and individuals with psychiatric conditions.

#### Risk Among Black/African-Americans

Civilian injuries caused by law enforcement impacts all citizens in the State of Illinois, but clearly Black men are consistently and disproportionately the victims of both fatal and non-fatal injuries caused by law enforcement.

#### Risk factors associated with legal interventions

#### A 5-Year Retrospective Analysis of Legal Intervention Injuries and Mortality in Illinois

#### Urban and Non-Urban Incidents

Injuries occur across the State of Illinois and are not isolated to major urban centers.

### Research in progress

#### Data Linkage of Multiple Datasets

To estimate the cumulative number of unique cases occurring annually, we are linking data across each of the data systems used for surveillance using multi-stage probabilistic linkage methods.

#### Ongoing Analyses

Ongoing detailed analyses will continue to be conducted on available datasets describing patient demographics, exposure (mechanism of injury), circumstances leading to injury, health outcomes (diagnoses, hospital procedures, discharge status) and costs associated with medical care and lost productivity.

#### Long-Term Outcomes

Interviews of civilians injured during a legal intervention to better describe the circumstances which led to the injury (arrest, traffic stop, police called to the scene), cost and type of medical care required, their relationship with the officer(s) that was involved in the injury, general changes in their relationship with law enforcement (fear of the police, mistrust), the cause of the incident from their perspective, the role of racism/bigotry/abuse of power, and long term changes in physical and psychological health, activities of daily living, social support and home life, finances, and ability to return to work.

#### Barriers to Reporting Injuries

Interviews of medical, law enforcement and policy professionals on the process of coding and reporting of legal intervention injuries, barriers to reporting, how police maintain custody during the transport and treatment of these patients, attitudes towards use of force by police among these professionals, administrative and system pressures, the role and extent of training, general awareness of the magnitude of police violence, and attitudes towards civilians injured during legal intervention.

#### Validation of ICD-10 Coding

We are validating the coding used in hospital records to verify reliability and validity of ICD-10 codes. In addition, we are evaluating the use of ICD-10 codes in reference to law enforcement personnel injuries. Initial work confirms that the majority of officers injured based on ICD-10 coding are in fact security guards assaulted on the job during robberies.

- CIVILIAN DATA
- Data Sources
- Facts and Figures
- Research
- Policy**

• Data on Civilian Injuries Caused by Law Enforcement • Policy Recommendations

## Policy Recommendations

The Law Enforcement Epidemiology Project at the University of Illinois Chicago aims to utilize scientific data to inform policy decision making regarding safe policing at the municipal, county and State levels in order to eliminate non-fatal and fatal civilian injuries, improve public safety and trust in law enforcement, and help make the working conditions of law enforcement safer and healthier.

One of the primary goals of this project is to **enhance the public debate** about current policy, **develop new policy ideas** and advise on **implementation and evaluation** of new policies. There has been a call for a paradigm shift by researchers who understand that this is a public health issue rather than solely a criminal justice problem. In turn, these researchers have called for the collection and reporting of law enforcement related injuries and deaths by public health entities, to augment current criminal justice sources.

Law enforcement related violence has proven to be in alignment with the issues that public health strives to deal with, such as social and structural determinants of health, especially the correlation between violence, socioeconomic status and race in the United States. The persistent disparity observed in the data may be attributable to policing activities that encourages profiling, harassment, and aggressive behavior towards marginalized citizens in the United States, especially African Americans and low-income Americans. These injuries and deaths have the potential to create mental trauma in families, communities and especially among young men in urban communities (Geller, 2014).

The hope is that by implementing public health policies for active surveillance of law-enforcement-related injuries and deaths across Departments of Public Health, the data can inform policy makers on how to best reduce or eliminate unwarranted injury system-wide.

#### Collaboration with key stakeholders

We are working to expand our diverse advisory board. The advisory board is composed of a diverse group of stakeholders including professionals in medicine, public health, law, community advocacy, law enforcement, local and state government (State Senators and Aldermen), and public policy.

#### Policy paper

A major output of this project is to generate a policy paper outlining recommendations to reduce the incidence of legal intervention injuries by focusing on root causes. The surveillance data can inform the following key policy issues:

- Mandatory reporting of use of force and resulting injuries to an independent agency
- Publish data publicly on all egregious cases of civil rights violations and repeat offenders
- Establish independent agencies to receive, investigate and adjudicate all complaints of civil rights violations with the power to discipline/fire/initiate criminal proceedings
- Extend protections from retaliation for civilians who file complaints to 10 years from the date of complaint
- Evaluate recruitment and screening strategies for new cadets
- Assess implementation of novel non-lethal tactics and evaluate existing non-lethal techniques
- Develop ongoing training programs for officers involving unconscious bias and how to interact with disabled, intoxicated and mentally ill persons.
- Assess officer burnout and PTSD, and provide rotations out of difficult positions/precincts
- Eliminate arrest/citation/summons quotas
- Extend whistleblower protections to 10 years from the date of complaint for officers (current law protects officers for 30-90 days)
- Add data on civilian complaints, suits, injuries and deaths to annual performance reviews of officers, supervisors and commanders
- Provide law enforcement personnel commensurate salaries for 40 hours of work (without having to work overtime)
- Establish a non-law enforcement emergency response unit to respond to 911 calls relating to persons with mental health conditions and non-violent complaints based on social work models (similar to Fire Department EMT responses). These first responders would be called to scenes involving drug use, public disturbances, vagrancy, loitering, vandalism and other non-violent violations.





## Law Enforcement Safety

### LAW ENFORCEMENT DATA

Data Sources

Research

Snapshot: During the most recent year of complete data, in 2018 law enforcement suffered...

**56**

Officers were feloniously killed in the line of duty.

**18805**

Officers suffered injuries from assaults.

**49270**

Number of injuries resulting in days away from work from any cause.

[Text accessible version of the law enforcement officer injuries graphic](#)

Law enforcement has been regularly ranked as one of the ten most dangerous occupations in the United States, specifically for correctional and police officers (US Bureau of Labor Statistics). Each existing data system provides a different picture of the risks law enforcement face while on the job.

Department of Justice data estimates that approximately 18,000 officers suffer injuries after being assaulted on the job each year. Of the officers who are assaulted, approximately 50 are feloniously killed by civilians with another 40 killed accidentally (e.g. motor vehicle collisions or being struck by vehicles). Studies have shown that officers are more likely to suffer injuries when they use force (Henriquez, 1999; Smith, 2002; Alpert, 2004).

However, data shows that law enforcement personnel are far more likely to suffer injuries and illnesses through non-violent means while conducting regular job duties. According to the Bureau of Labor Statistics, in 2018, 135 law enforcement died on the job, not the 89 reported by the FBI. Of the deaths reported on the Census of Fatal Occupational Injuries (Bureau of Labor Statistics), in 2018 44% (n=59) of officer fatalities were caused by assaults/homicides and 36% (n=48) were caused in transportation incidents.

The Bureau of Labor Statistics also shows that 49,270 law enforcement personnel suffered injuries and illnesses that resulted in days away from work in 2018; 85.5% of these injuries involve two specific groups, (1) bailiffs, correctional officers, and jailers and (2) police officers. The median days away from work ranged between 10-12 days per incident. Our past research evaluating workers' compensation data show that most of these non-violent injuries are caused by falls, motor vehicle crashes, overexertion, being struck by or caught between/sunder objects (Holloway, 2016). The majority of the injuries affect the officers' extremities and many result in substantial permanent disability.

### Available Information

The surveillance system we developed utilizes multiple data systems which provides clarity and details that no single system contains because of reporting barriers. Surveillance systems serve as the cornerstone of public health policy by providing timely, representative and accurate data on a given issue. This helps policy makers prioritize issues.

The Law Enforcement Epidemiology Project at the University of Illinois Chicago provides reports and fact sheets relating to law enforcement safety in four areas:

[Methodology](#) [Surveillance Data](#) [Research](#) [Terminology](#) [Occupational Codes](#)

### Enhance Research Methodology

Provide a framework for a comprehensive surveillance system based on existing public health data sources that can be implemented in nearly all U.S. States immediately. While the Bureau of Labor Statistics and Bureau of Justice Statistics provide excellent injury data for law enforcement personnel, they are restricted primarily to injuries caused by assaults. We aim to expand utilization of state workers' compensation data - First Reports of Injury and Claims Data - in order to provide greater context on motor vehicle safety, ergonomics and other sources of workplace hazards that law enforcement face on a daily basis. Since law enforcement personnel are more likely to suffer workplace injuries through non-violent means, it is critical to evaluate existing systems that provide this data.

### LAW ENFORCEMENT DATA

Data Sources

Research

[Law Enforcement Safety](#) [Law Enforcement Safety Research](#)

## Law Enforcement Safety Research

The Law Enforcement Epidemiology Project at the University of Illinois Chicago aims to conduct novel research on risk factors, scope of work-related injuries and long term outcomes following an injury suffered by law enforcement personnel on the job. Our research has focused on utilizing workers' compensation data to better describe the magnitude, trend, and outcomes of workplace injuries among law enforcement personnel in Illinois.

Unlike many other studies related to health outcomes of law enforcement officers, our work provides details on injuries and illnesses suffered by law enforcement personnel caused by all circumstances (not only violence-related) and stratifies law enforcement officers by specific occupational subgroups: **Correctional Officers, Municipal Police, Sheriff, and State Police**. Differences in job duties and populations served by the four law enforcement subgroups correspond with some of the observed differences in cause and nature/mechanism of injury and illness.

### Quick Facts

**+80%**

Of injuries suffered by law enforcement are caused by preventable non-violent means.

**Higher Risk**

In Illinois, correctional officers consistently had the highest claim rates for workplace injuries.

### Falls and Motor Vehicles are Most Common Causes of Injury



Injuries to law enforcement personnel are primarily caused by nonviolent means; only 2% to 18% of injuries were caused by assaults across the four subgroups of law enforcement personnel: Correctional Officers, Municipal Police, Sheriff, and State Police. Fall related injuries were the most common cause of injury in all subgroups. Correctional officers were more likely to be injured from falls and assaults than any other subgroup of law enforcement personnel. State police were the most likely to be injured by a motor vehicle or in a crash.

### Permanent Disability and Lost Days of Work

Municipal police officers had the highest median ratings of permanent partial disability, while Sheriff's Officers lost the most days of work following a workplace injury. Across all law enforcement subgroups in those with permanent disability, the mean percent permanent partial disability was over 10%, primarily involving the extremities.



[Read Full Study](#)

### Distinct Occupations in Law Enforcement



While our research demonstrates similarities between the main four subgroups of law enforcement personnel, there are distinct differences in demographic characteristics, cause of injury, body parts affected, and claim outcomes, providing evidence that these subgroups should be treated as distinct entities. Occupational hygiene and safety recommendations should be customized to each subgroup in order to take into account the varied occupational hazards different law enforcement personnel experience.

[Read Full Study](#)

### Summary of National Data

Below are data files that provide summarized data from some of the data sources listed above.

#### Employment Data

The Bureau of Labor Statistics collects data on employment and wages through the Occupational Employment Statistics (OES) program. The data file provides mid-2019 year employment estimates for law enforcement and mean annual salary by occupation subgroup.

[Law Enforcement Employment Numbers in U.S.](#)

[Bureau of Labor Statistics Data Online](#)

#### Non-Fatal and Fatal Injury Trend Data

The Department of Justice and Bureau of Labor Statistics collects data on non-fatal and fatal injuries suffered by law enforcement personnel. The Department of Justice data predominately focuses on injuries caused through violent means, while the Bureau of Labor Statistics focuses on all types of injuries and specifically on injuries resulting in lost days of work or fatal injuries.

[Law Enforcement Non-Fatal and Fatal Injury Trends](#)

[Department of Justice Data Online](#)

[Bureau of Labor Statistics Data Online](#)

#### NOMS Death Record Data

NIOSH's National Occupational Mortality Surveillance (NOMS) provides deaths for all causes by occupation. The file provides PMRs which are the proportionate mortality ratios. In this dataset, a PMR greater than 100 indicates that a specific cause of death is more common in those currently or formerly employed in law enforcement than those employed in all other types of occupations. **The data indicates that current and former law enforcement personnel may be more likely to**

An aerial photograph of a university campus, overlaid with a semi-transparent blue filter. The image shows a wide, paved walkway with many people walking. There are trees and buildings in the background. The text "Some Definitions" is centered in white, bold font.

# Some Definitions

# Law Enforcement Epidemiology – Intent of Injury



## ICD 9- E970-979

injuries inflicted by the police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal action legal execution

## ICD 10 – Y35

•any injury sustained as a result of an encounter with any law enforcement official, serving in any capacity at the time of the encounter, whether on-duty or off-duty. Includes: injury to law enforcement official, suspect and bystander



# Civilian Data - Results



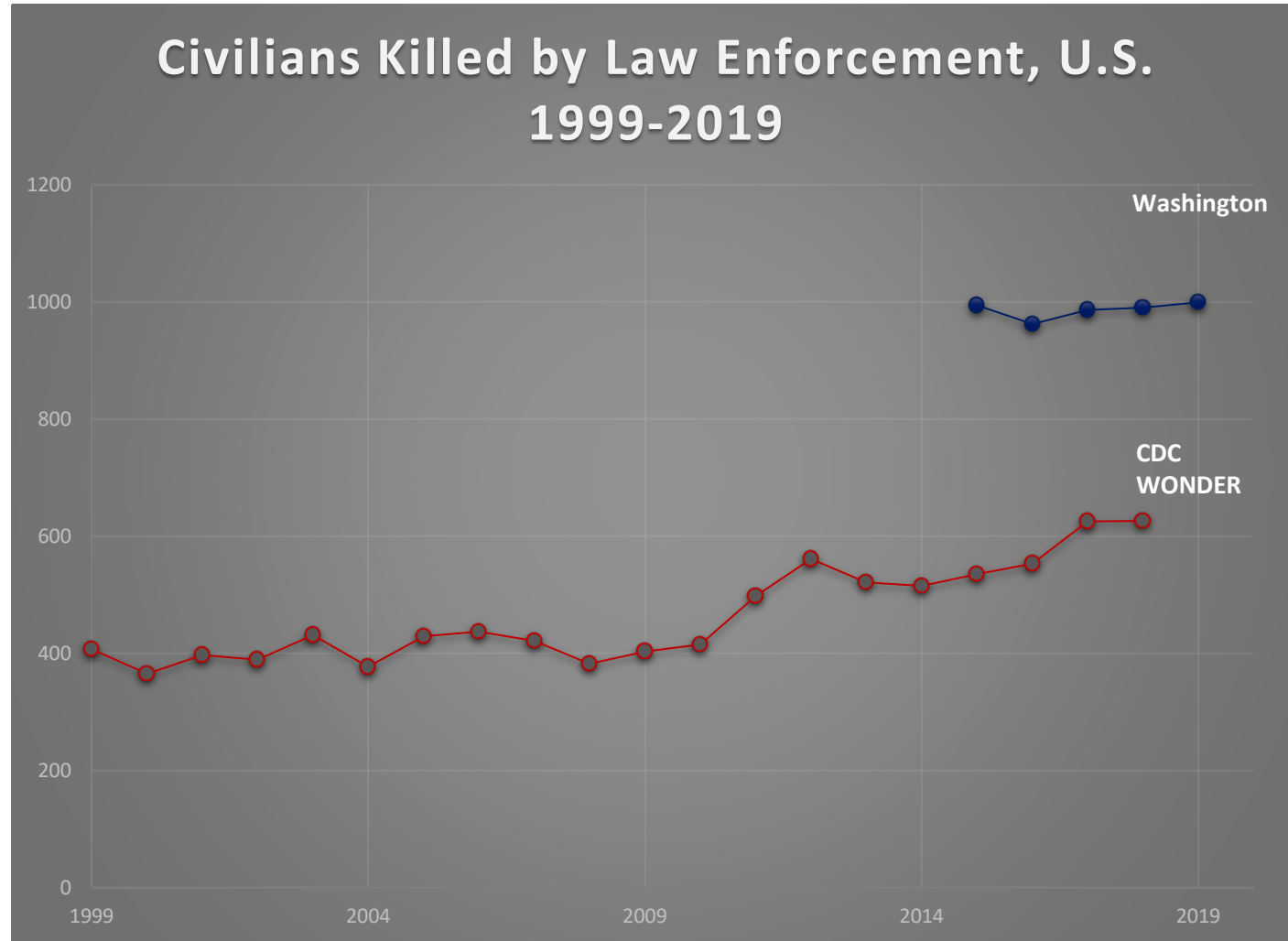
# National Data

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## **Based on Bureau of Justice Statistics, each year:**

- 50 million persons have contact with law enforcement personnel during traffic stops, street stops, arrests, crashes, or residential calls.
- 15% of these events involve threat of or use of force
- Estimated 250,000 civilians are injured annually
- 80,000 of these injuries are treated in hospitals

# National Data



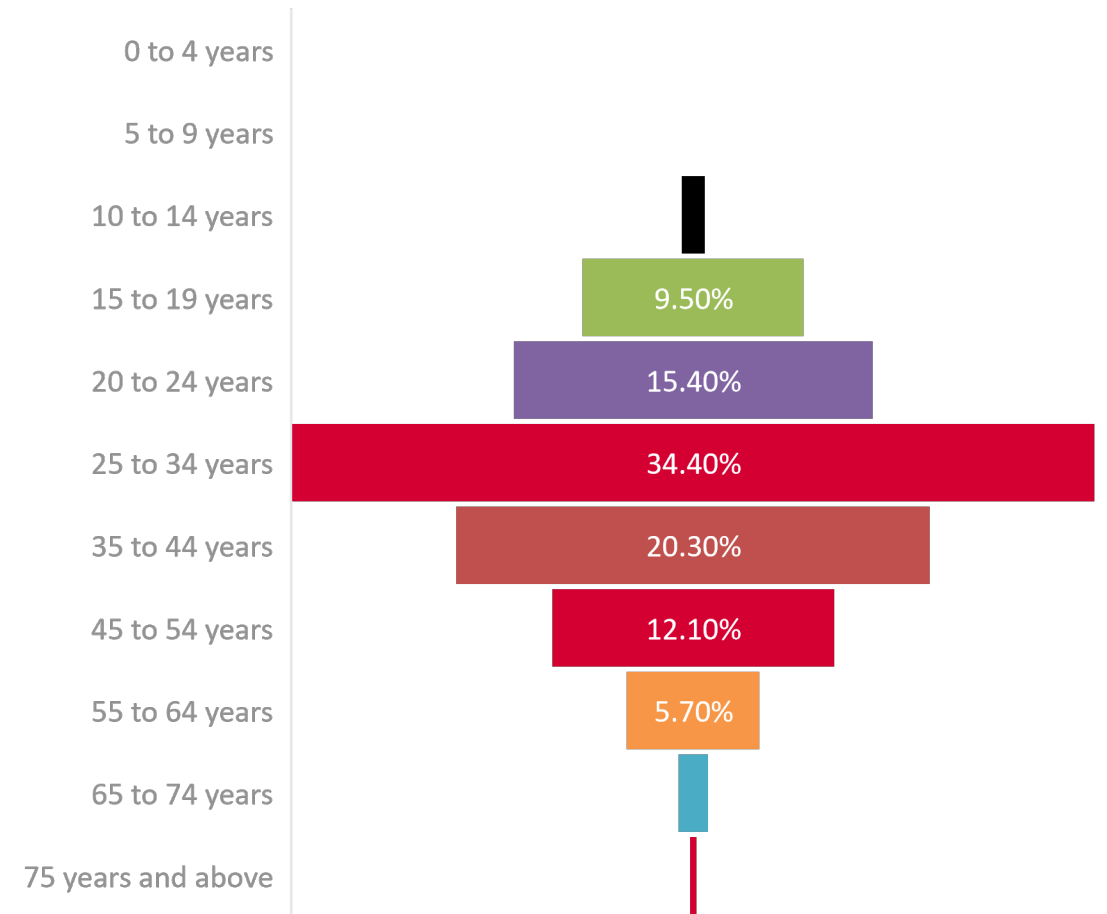
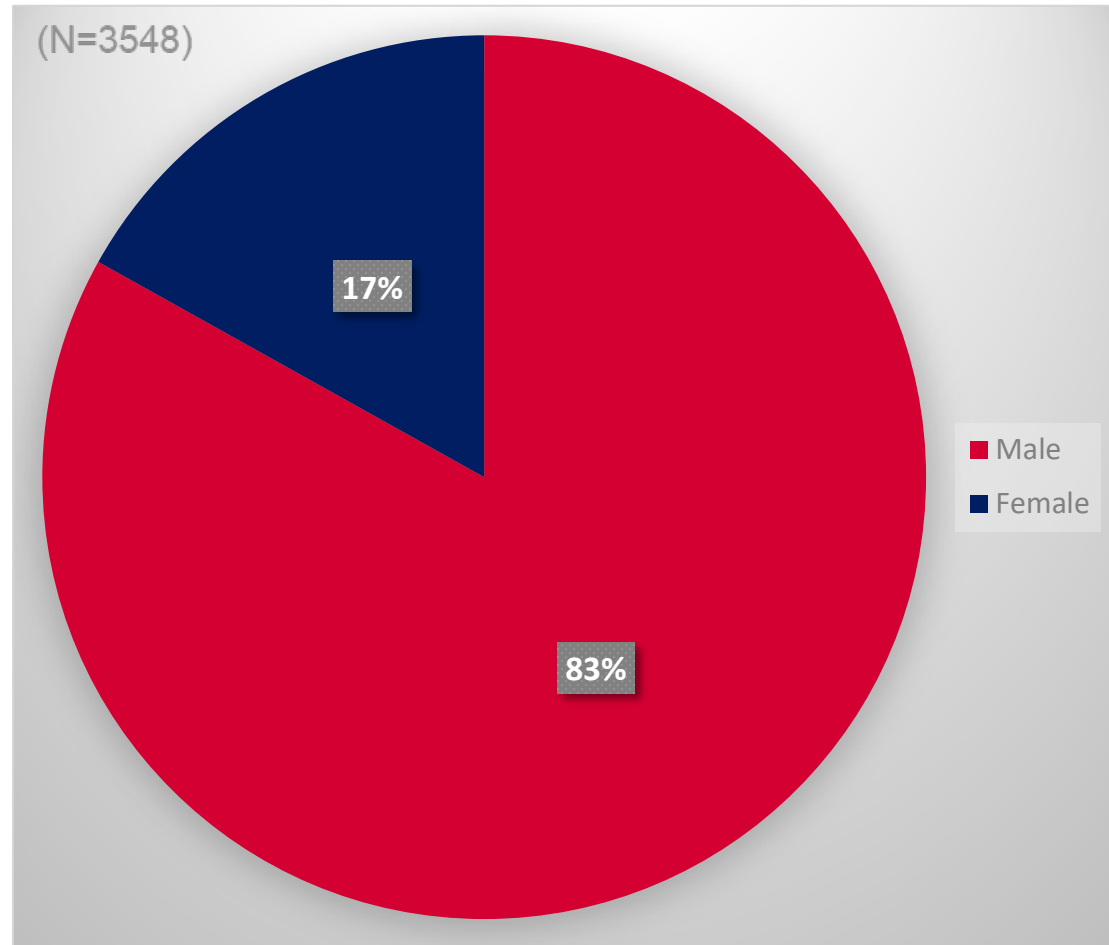
# Illinois Data

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**Based on data from our surveillance project, each year in Illinois:**

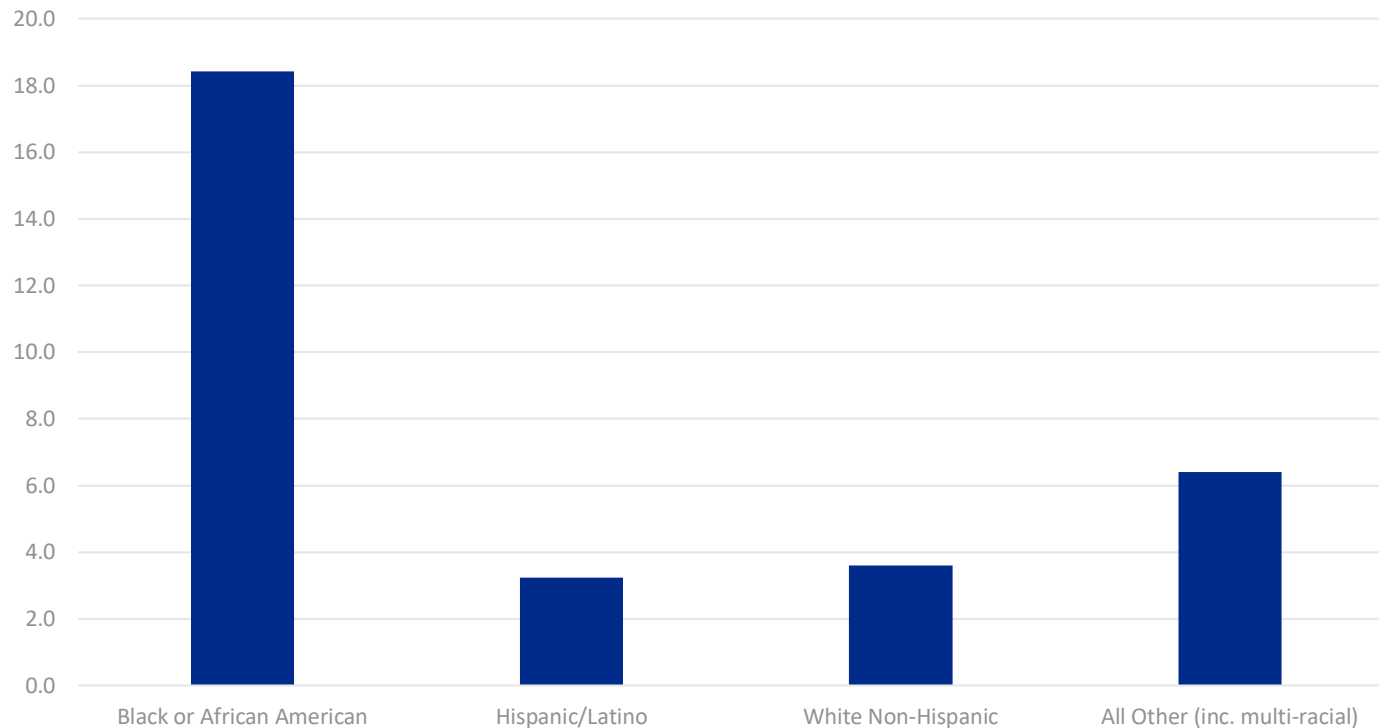
- 10-20 deaths
- 70-100 serious injuries
- 1000 injuries requiring treatment in a hospital
- Less than 25% are taken into custody after discharge.

# Legal Intervention by Sex & Age Group in Illinois from 2016-2020



# Legal Intervention by Race & Ethnicity in ILLINOIS from 2016-2020

Crude Average Annual Hospitalization Rate per 100,000, Illinois



- The rate of fatal and non-fatal injury involving African Americans is consistently 5-12x higher than all other groups, including:
  - Women
  - Non-urban areas
  - Across age groups

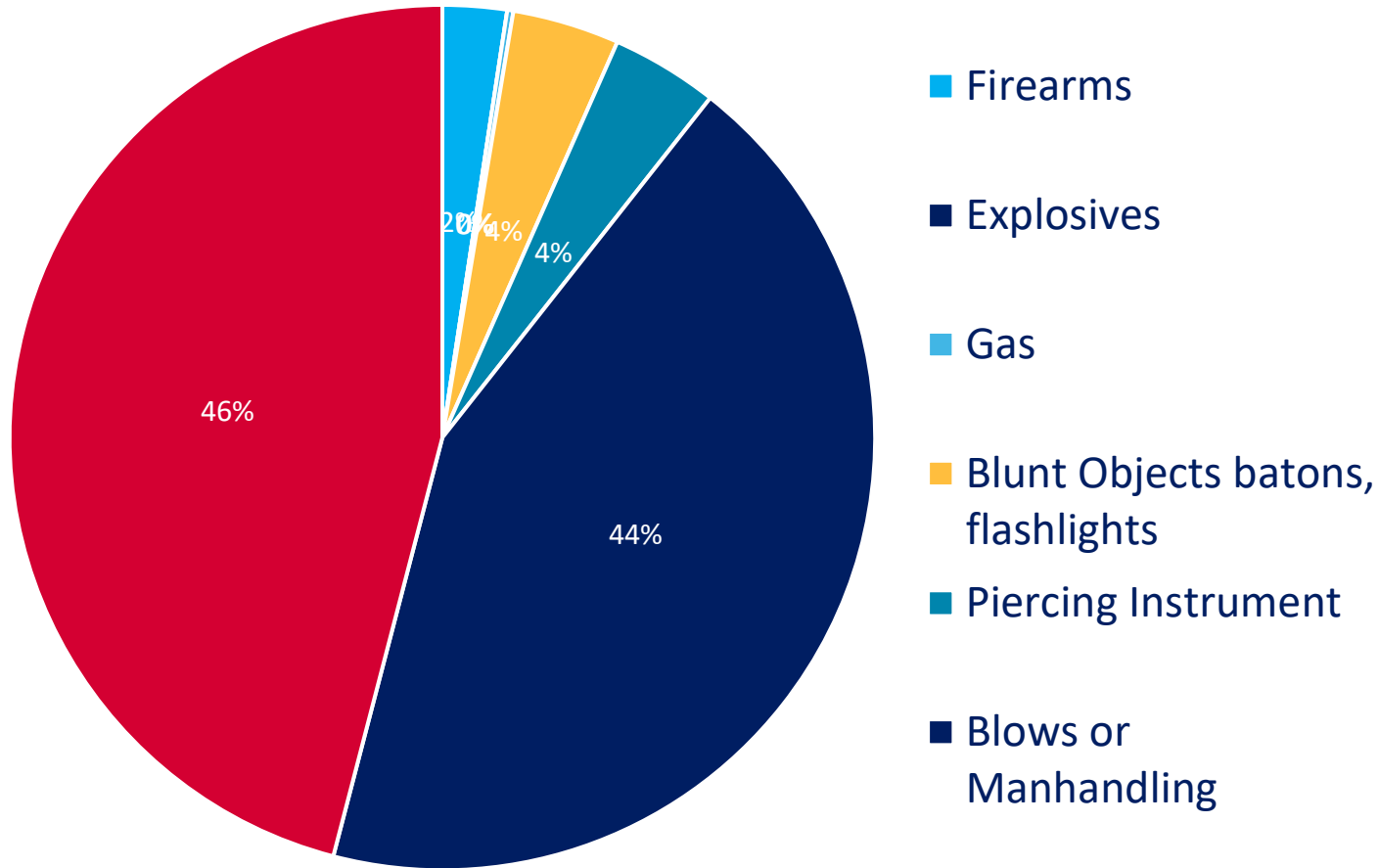
# Disproportionate Impact on Low Income Communities

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In Illinois, nearly 80% of individuals injured during encounters with law enforcement are uninsured or covered by Medicaid. These are proxies for low income in medical data systems. Among all patients, <30% are uninsured or have Medicaid.

This corresponds with national data showing that police activity is concentrated disproportionately in low income communities, as are police stops, search and seizures, arrests, charges and imprisonment.

# Legal Intervention Cause of Injury 2016-2020

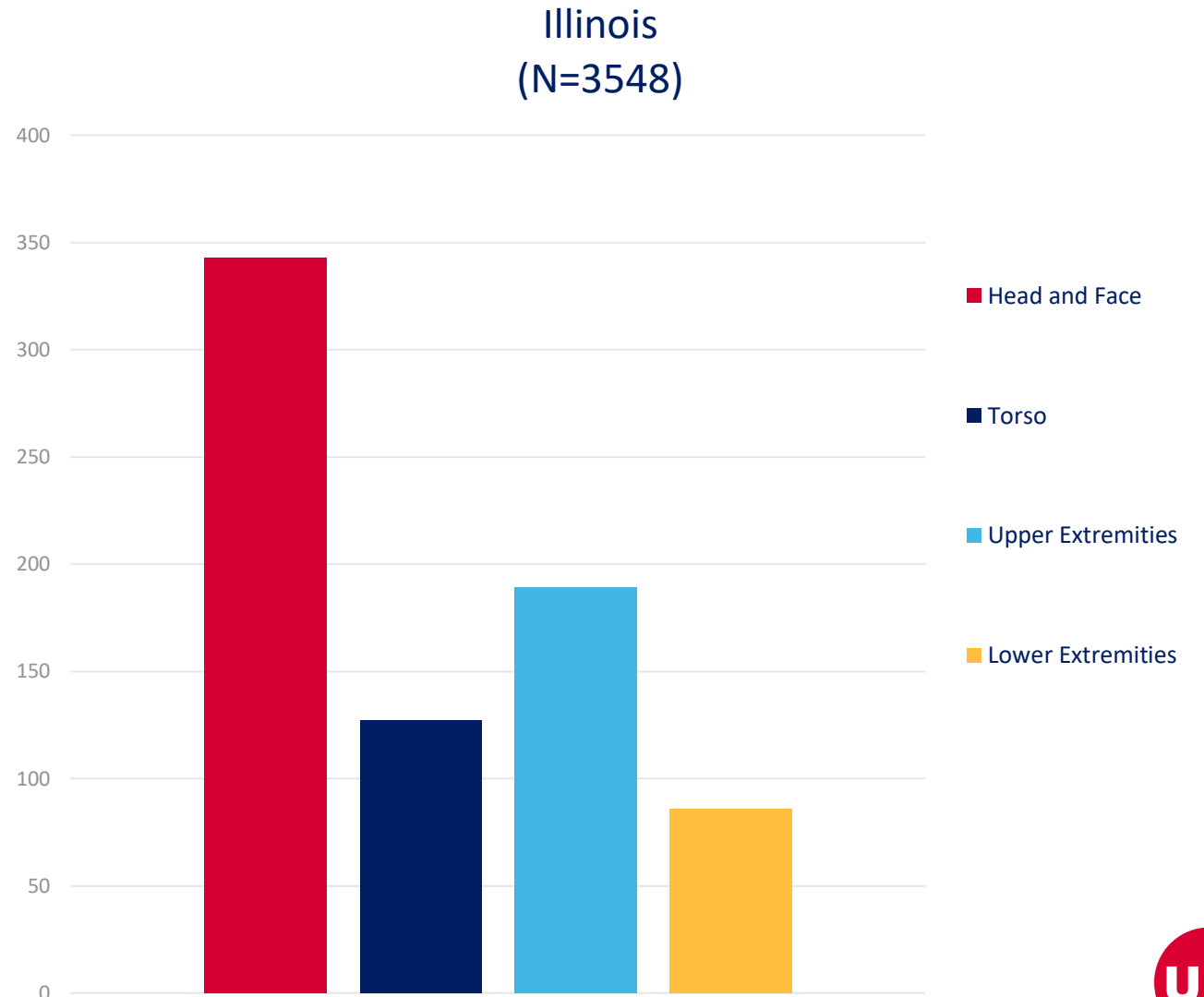


- In non-fatal cases, nearly all cases do not involve firearms.
- For fatal cases, 85% involve the discharge of a firearm (CDC data).

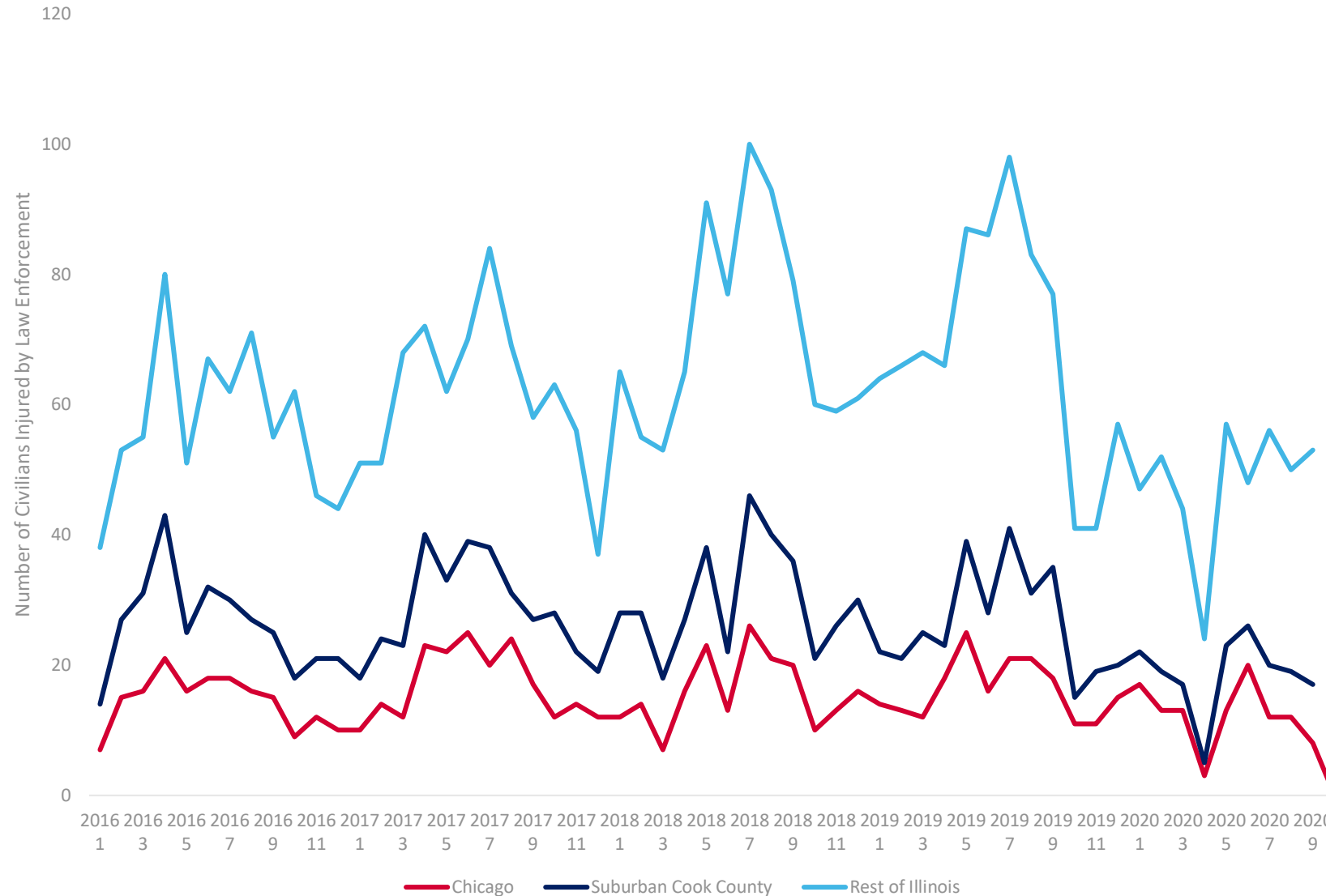


# Legal Intervention Injuries, Illinois 2016-2020

- For every fatal injury there are 60-80 non-fatal cases
- Injuries primarily involve the head or upper extremities.
- 13% suffer traumatic brain injury



# Legal Intervention Injury Trends by Region



# Legal Intervention Risk Factors

Rate of injury is nearly equivalent across three main regions – Chicago, Suburban Cook County and the rest of Illinois.

- This is not exclusively a problem with Chicago Police as frequently claimed.

Risk factors identified across all of Illinois include:

- Residents of lower income communities
- Black / African-American residents
- Persons with substance use disorders
- Persons diagnosed with psychosis or major depression
- Persons with paralysis and neurological disorders
- Summer months

# Brief Research Highlight: Law Enforcement Personnel

In addition to research focusing on civilian injuries, we conduct occupational health research to identify risk factors and safety controls to reduce injuries among law enforcement personnel.

In Illinois,

- 80% of injuries caused by preventable non-violent sources
- Correctional officers have highest risk of occupational injury
- Median days of lost work 10-12 days
- Most common causes of injury are falls, motor vehicle crashes, overexertion, being struck by or caught between objects.
- Most injuries involve extremities
- Most officers suffer substantial permanent disability
- Safety controls exist, they just need to be implemented!

An aerial photograph of a university campus, overlaid with a semi-transparent blue filter. The image shows a large, multi-level plaza with many people walking. Several signs with the 'UIC' logo are visible. The text 'Next Steps' is centered in white, bold font.

# Next Steps

# History of Applying for Funding to Development a System to Track Acute and Long-term Effects of Legal Interventions

<b>Date of Submission</b>	<b>Agency</b>	<b>Amount Requested</b>	<b>Amount</b>
2016	Portes Foundation	\$40,529.00	Not Funded
2016	Robert Wood Johnson Foundation	\$204,964.00	Not Funded
2017	Joyce Foundation	\$204,964.00	Not Funded
2017	Polk Brothers	\$204,964.00	Not Funded
2018	Public Welfare Foundation	\$72,000.00	Not Funded
2018	Cook County Health & Hospitals System	\$200,000.00	Not Funded
2018	Charles Koch Foundation	\$58,975.00	Not Funded
2018	Alphawood Foundation	\$40,529.00	Not Funded
2018	Center for Health Equity Research	\$50,000.00	Not Funded
2018	Civilian Office of Police Accountability	No funding available	Not Funded

# Current and Future Research

Expand surveillance model to other states – MN, MI, IN, WI

Partnering with other researchers that focus on different elements using law enforcement data sources – Center Policing Equity

Research on long term effects of injuries on civilians

Stakeholder interviews regarding barriers to reporting civilian injuries

Expanding research on correctional officers and security officers

# New Insights Provided by Surveillance System

New Insights: Current data systems are limited and focus on fatal incidents. Our surveillance system has shown that for every death, there are approximately 60-80 non-fatal injuries that require treatment in a hospital, and an additional 50 injuries that do not require hospital care. We have used our surveillance system to:

Link datasets to evaluate underreporting of fatal cases, describe clinical outcomes following crashes involving police vehicles, and quantify the universe of civilian injuries.

Provide current and accessible data to stakeholders that is easy to use and interpret.

Assess temporal trends across jurisdictions and incidence data by ZIP code, including data on ethnic disparities.

Highlight the severity of non-fatal incidents, including the large proportion of traumatic brain injuries.

Enumerate the disproportionate burden on African-Americans.

Demonstrate that equivalent high rates of injury persists outside of major urban centers.

Identify various risk factors for injury, and correlate mechanism of assault with severity of injury.

Describe research needs relating to safer control tactics, efficacy of de-escalation tactics, and long-term adverse outcomes on affected individuals and communities.