

LINKING DATA TO EVALUATE FIREARM POLICIES

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OVERVIEW

- Summary of our Criminal History Project
- Linking data
- Our study methodology
- Lessons learned
- Future Steps

MCW STUDY TEAM

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BACKGROUND & RATIONALE

CRIMINAL HX PROJECT

- Sandy Hook – December, 2012
- Renewed debate about firearm policies
- President Obama
 - 1/2013 Executive Action 4: “Direct the Attorney General to review categories of individuals prohibited from having a gun to make sure dangerous people are not slipping through the cracks”

FEDERAL DISQUALIFICATION CRITERIA

1. Has been convicted of a misdemeanor offense of domestic violence
2. Has been convicted of, or is under indictment for, a crime punishable by imprisonment for 1+ years (felony)
3. Is subject to a qualifying domestic protective order (permanent)
4. Is an unlawful user of or addicted to a controlled substance
5. Is underage
6. Has been adjudicated as a mental defective or committed to a mental institution [sic]
7. Is a fugitive from justice
8. Has renounced U.S. citizenship
9. Has been dishonorably discharged
10. Is an illegal alien or has been admitted to the U.S. under a nonimmigrant visa

EXPANSION RECOMMENDATIONS BY THE CONSORTIUM FOR RISK-BASED FIREARM POLICY

- Temporary domestic violence restraining orders
 - for duration of order
- Convictions of 2+ DWIs within 5 years
 - for 5 years
- Convictions of 2+ misdemeanors involving a controlled substance within 5 years
 - for 5 years
- 1+ Violent misdemeanor convictions
 - for 10 years

EXAMPLE VIOLENT MISDEMEANORS

- **Violation of a domestic abuse/child abuse/harassment restraining order or injunction**
- **Battery**
- **Endangering safety by use of a dangerous weapon**
- **Carrying a firearm in a public building**
- **Leaving/storing a loaded gun within reach/easy access of a child**
- **Other weapons (Tear gas, mace)**
- **Harassment**
- **Intimidation of witnesses or victim**
- **Harassment of police and fire animals**
- **Mistreating animals**
- **Instigating fights between animals**
- **Shooting at caged or staked animals**

RATIONALE: CRIMINAL HX PROJECT

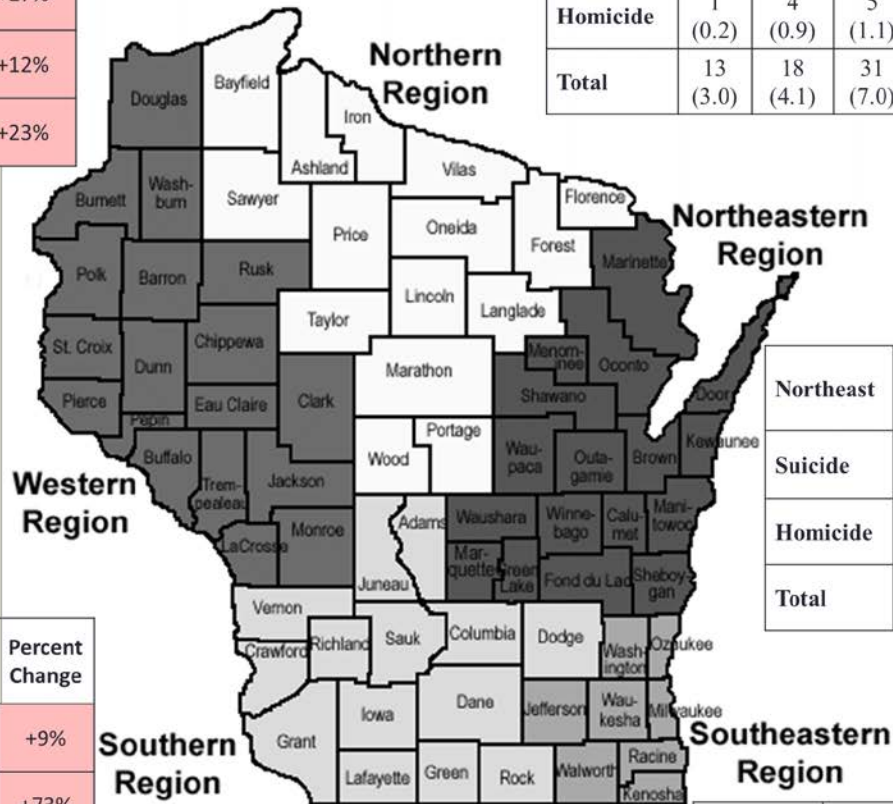
- Effective risk-based firearm policy strategies “that reflect evidence-based risk of dangerousness” are needed.
- Decision makers need valid and comprehensive data to make informed decisions about:
 - which criteria to enact
 - how best to enact them
 - which sections of the population should be targeted

RATIONALE (CONT.)

- Unknown if criteria disproportionately affect geographic areas within a state

West	FA	NFA	Total	Percent Change
Suicide	30 (3.8)	22 (2.8)	52 (6.6)	+27%
Homicide	5 (0.6)	10 (1.3)	15 (1.9)	+12%
Total	35 (4.4)	32 (4.0)	67 (8.5)	+23%

North	FA	NFA	Total	Percent Change
Suicide	12 (2.7)	14 (3.2)	26 (5.9)	-13%
Homicide	1 (0.2)	4 (0.9)	5 (1.1)	-48%
Total	13 (3.0)	18 (4.1)	31 (7.0)	-21%



Northeast	FA	NFA	Total	Percent Change
Suicide	34 (2.9)	45 (3.8)	79 (6.7)	+14%
Homicide	5 (0.4)	7 (0.6)	12 (1.0)	-41%
Total	39 (3.3)	52 (4.4)	91 (7.7)	+1%

South	FA	NFA	Total	Percent Change
Suicide	31 (2.8)	46 (4.2)	77 (7.7)	+9%
Homicide	5 (0.5)	16 (1.5)	21 (1.9)	+73%
Total	36 (3.3)	62 (5.7)	98 (9.0)	+18%

Southeast	FA	NFA	Total	Percent Change
Suicide	43 (2.0)	70 (3.3)	113 (5.3)	+4%
Homicide	102 (4.8)	34 (1.6)	136 (6.4)	-33%
Total	145 (6.8)	104 (4.9)	249 (11.7)	-20%

Figure 2. Youth suicide and homicide by region at T2 (2010-2012). Rates are for persons under age 25 by intent (suicide and homicide) and method (Firearm [FA] and Non-Firearm [NFA]). Percent changes calculated are of total violent deaths, suicides, and homicides in comparison with T1 (2000-2002) rates. Rates in parentheses are per 100,000 population per year.

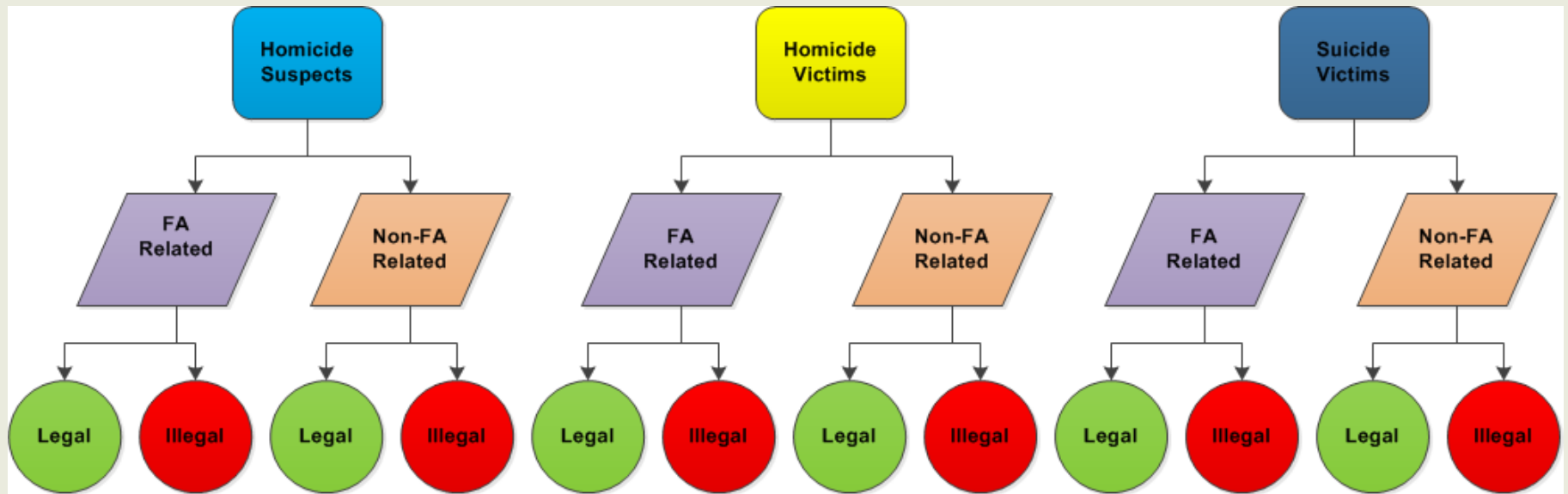
RATIONALE (CONT.)

- Start with a population that has already been involved with the most serious of outcomes:
 - homicide suspects
 - homicide victims
 - suicide decedents

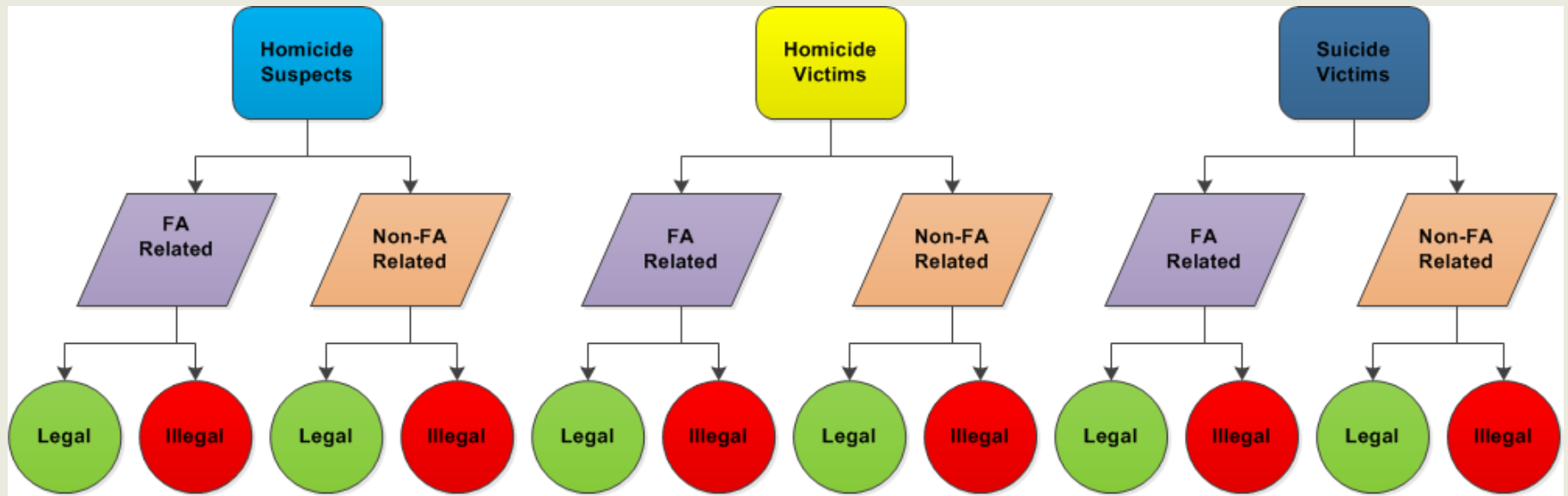
2012 MORTALITY IN WI

Injury Mortality	# of Deaths	Age-adj. Rate	% of deaths within category
Injury Deaths	3,788	61.5	-
MV crash – occupant	384	6.6	10.2% of injury deaths
Homicides	185	3.4	4.9% of injury deaths
Suicides	734	12.6	19.4% of injury deaths
Poisoning	128	2.2	17.4% of suicides
Intentional	198	3.6	27% of suicides
All Firearm Intentions/Manners	479	8.3	12.7% of injury deaths
Firearm Suicide	346	5.8	47.1% of suicides
Firearm Homicide	123	2.3	66.5% of homicides

RESEARCH QUESTIONS



- 1a. Under current policies, what proportion were able to lawfully possess a firearm at the time of the fatal injury?
- 1b. When possession criteria are expanded, what proportion would have been able to lawfully possess a firearm?

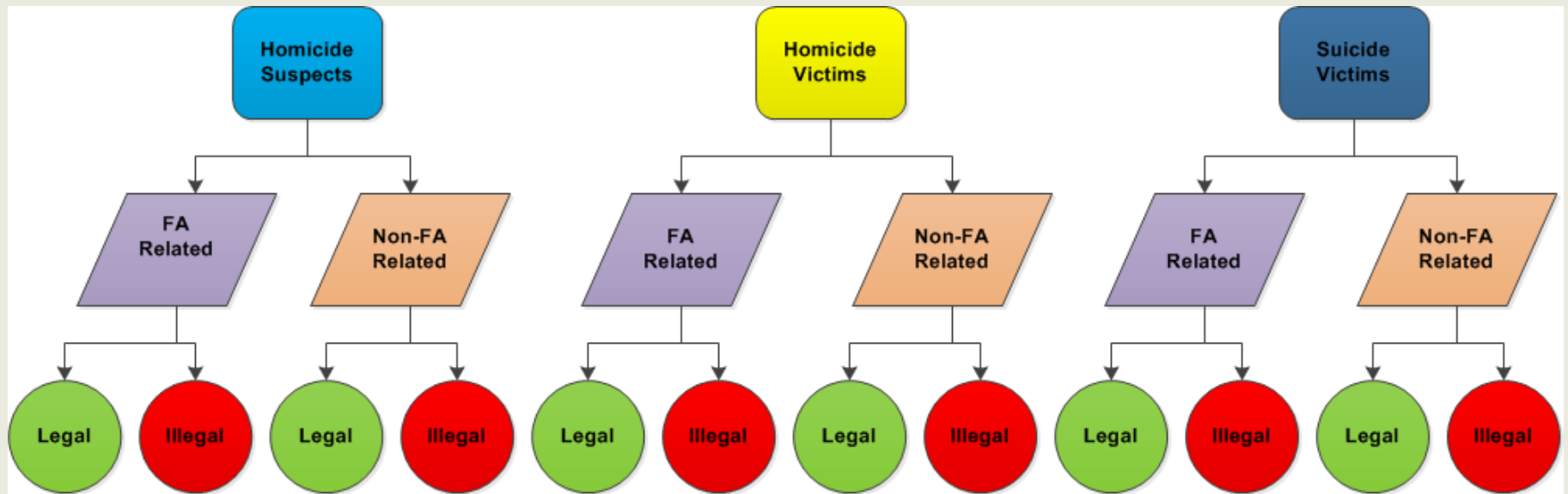


2. Do suspects, victims and decedents differ in legal status and criminal profiles under both current and expanded policies?

Between Groups:

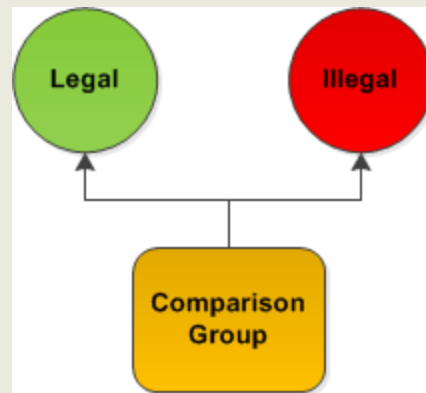
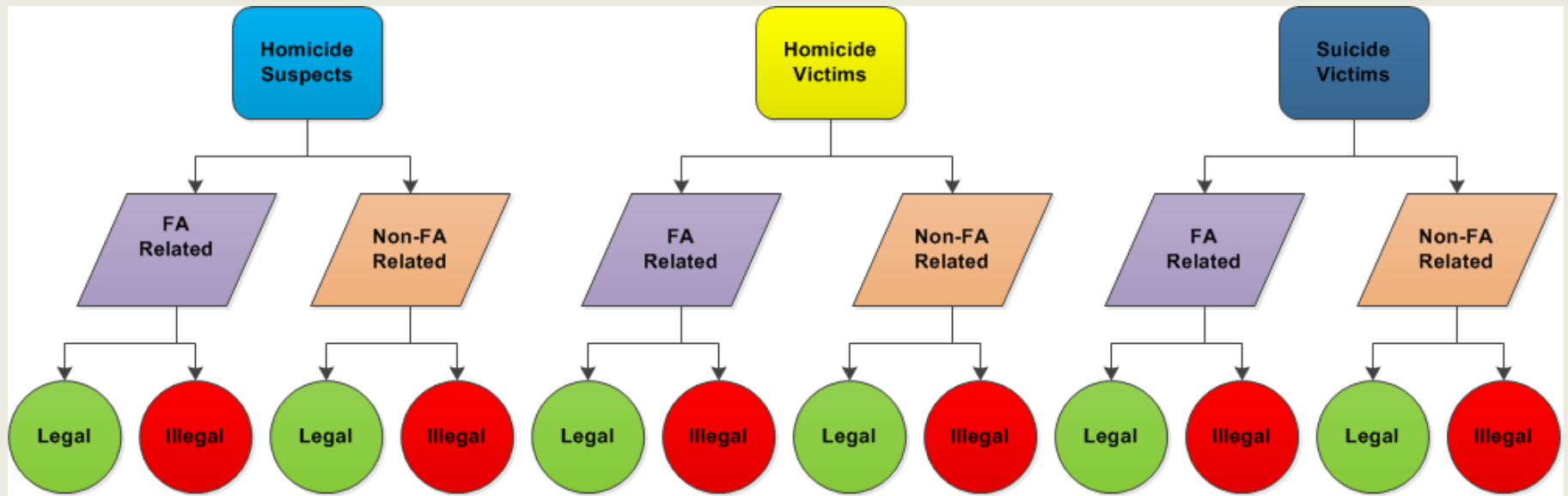
- a) Overall proportion prohibited?
- b) Criminal profiles: Disqualified under different criteria? Do total counts differ?
- c) Firearm suspects vs. firearm victims vs. firearm suicide decedents: (legal statuses, criminal backgrounds)?

Within groups: Are there differences between firearm vs. non-firearm deaths? (e.g., are prohibited suspects individuals more likely to use non-FA?)

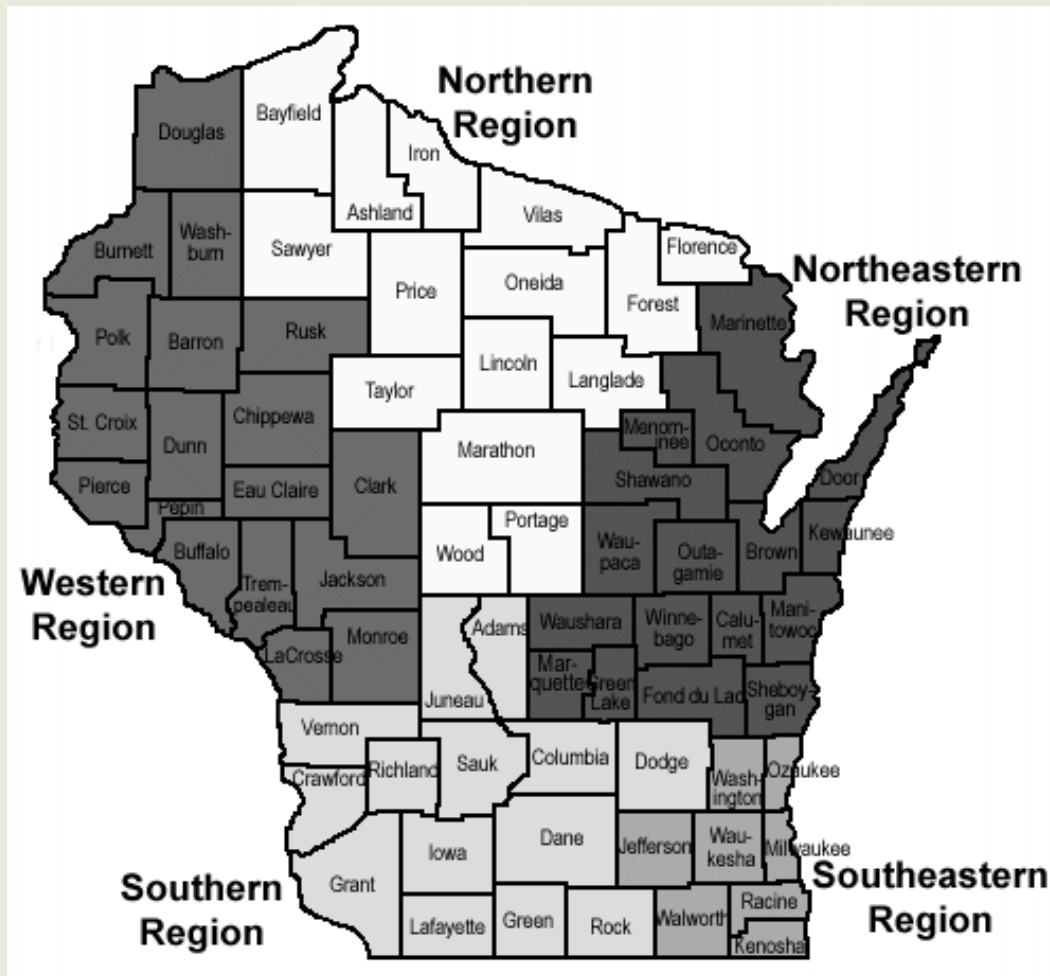


3. What proportion of qualified individuals under current criteria would have been disqualified under proposed criteria?

- I.e., What is the 'added benefit' of adding new criteria?



4. Which criteria best identify homicide suspects or suicide decedents, as compared to the general population of Wisconsin?



5. Is there variation in how current policies affect residents of different geographical areas? Would there be variation under expanded policies?

METHODS

WHAT IS NEEDED?

- Individual-level data on WI:
 - Homicide suspects
 - Homicide victims
 - Suicide victims
- Comparison group of WI residents
- Criminal history information
- Geographic classifications

What data was available for us to use?

LINKING DATA

- Linking: Data fields common to two or more databases refer to the same person or incident
- Variables common to both files
 - Defined the same way (name, DOB, properties of event)

Why?

- Time, money
- Efficient use of existing data
- Sources contain unique information
- Reduce bias
 - Solely relying on one data source could lead to misinformation

DATA SOURCES: SAMPLE & COMPARISON GROUP

- Sample: 2008-2011 Wisconsin Violent Death Reporting System (WVDRS); WI DHS
- Comparison group: Random sample of licensed individuals in WI; DOT databases

2008-2011 WVDRS Violent Death Counts

<u>Violent Death Category</u>	<u>Estimated Counts</u>
Homicide Suspects – total	669
Homicide Suspects – firearm	427
Homicide Suspects – non-firearm	242
Homicide Victims – total	610
Homicide Victims – firearm	366
Homicide Victims – non-firearm	244
Suicide Decedents – total	2,925
Suicide Decedents – firearm	1,327
Suicide Decedents – non-firearm	1,598
Total	4,204

- Sample and comparison individuals matched on age, gender & county of residence

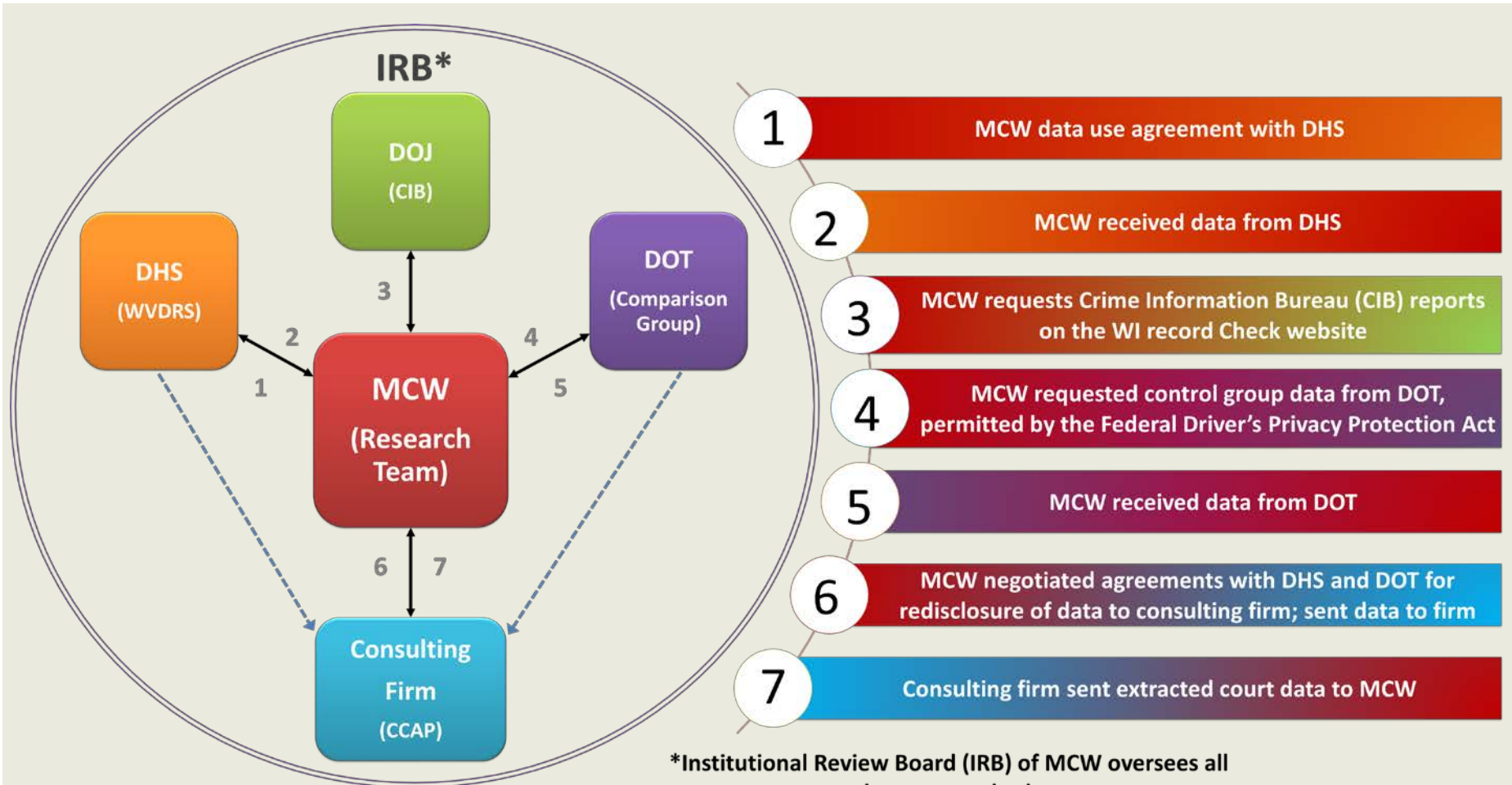
DATA SOURCES: CRIMINAL HISTORY

- Criminal History
 - WI DOJ Crime Information Bureau (CIB) Centralized Criminal History Database (CCH)
 - Wisconsin Circuit Courts Access (WCCA)
- Investigate records of individuals in WVDRS & DOT
- Arrests, charges (statutes), dispositions, circumstantial information (e.g., armed, DV)
- Some civil cases (e.g., restraining orders, divorce)
- Reduce Bias – two different sources

OTHER DATA SOURCES

- **Supplementary data sources for missing data**
 - News outlets, web obituaries, court documents, voter registration, etc.
- **Geography: Rural-Urban Continuum (RUC) Codes**
- **Current and proposed criteria: State policies, advocacy websites, discussions**

OBTAINING DATASETS



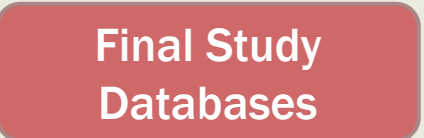
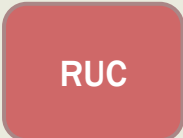
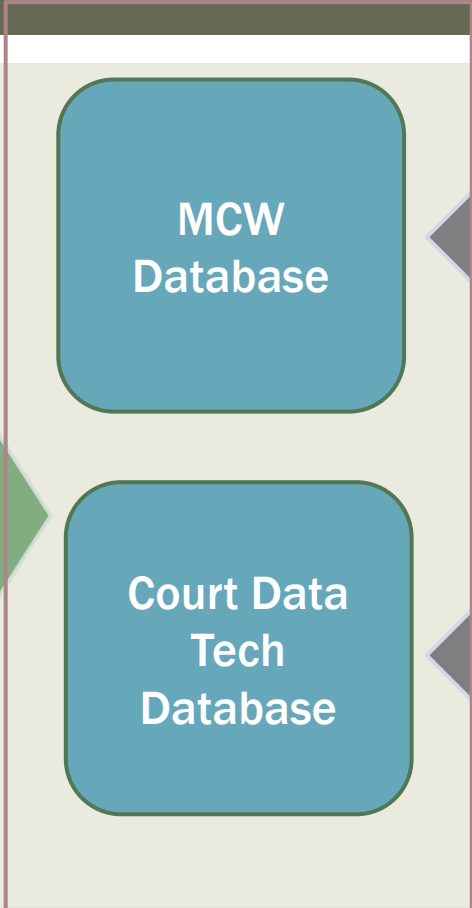
*Institutional Review Board (IRB) of MCW oversees all data use methods

DATA FLOW

Supplemented
(media, web)



- Incident ID (WVDRS)
- Death Date (WVDRS)
- Name
- DOB
- Race
- Sex
- County of Residence
- Participant ID



LESSONS LEARNED & NEXT STEPS

LESSONS LEARNED

- Data owners can be flexible to unique study requirements
- Each institution has its own policies
- Partners may not be familiar with academic institutions, IRBs, MOUs, data storage
 - Include time and resources (legal)

LESSONS LEARNED (CONT.)

- Partners can't or may not want to sign agreements drafted by other partners
- Sometimes linking isn't possible w/variables
- Allow for time and resources to secure data
- Representative comparison group

CURRENT PROGRESS

- Data collection through the winter
- Analysis through the Summer of 2016
- Second meeting of Advisory Committee 11/15

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**Thanks to the WI Department of Health Services, WI
Department of Transportation & All other Study
Partners**

Questions?

PRELIMINARY ANALYSES 2008-2009

(AS OF 10/9/15)

Characteristic	Total N=1,758	
Sex	N	%
Male	1,328	76
Female	430	24
Age		
0-17 years	68	4
18-21 years	118	7
22-50 years	939	53
> 50 years	607	35
Unknown	26	1
Race		
White	1,553	88
Black	174	10
Asian	13	1
American Indian	16	1
Unspecified	2	<1

Manner of death	n	%
Accident	10	<1
Suicide	1,446	82
Homicide	285	16
Legal Intervention	8	<1
Suspect-no manner	9	<1
Person type		
Victim	1,727	98
Suspect	9	<1
Victim & Suspect	22	1
Manner x Person Type		
Suicide Victim	1,426	81
Homicide Victim	283	16
Hom. Suspect & Suicide Victim	20	1
Accident Victim	10	<1
Suspect	9	<1
Legal Intervention Victim	8	<1
Homicide Victim & Suspect	2	<1

PRELIMINARY FINDINGS (CONT.)

Criteria	N
Current Federal & WI Criteria	
Age less than 18	93
Felony conviction	134
Misdemeanor conviction with DV enhancer	53
Drug conviction within 1 year	9
Federal total	289
Proposed Expanded Criteria	
2 or more OWI convictions within 5 years	58
2 or more drug arrests within 5 years	19
Violent misdemeanor within 10 years	60
Proposed total	137
Overall total preclusions	426*

426 overall positive criteria matches, within 348 unique individuals (20%)