

HIGHWAY SAFETY PLANNING



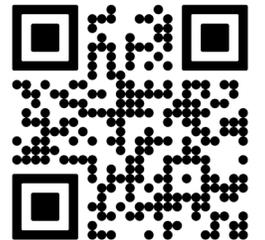
1. ACCESS 911 AND EMS DATA THROUGH YOUR STATE'S EMS DATABASE



2. COORDINATE POST-CRASH CARE BETWEEN HIGHWAY SAFETY, EMS AND 911



3. INTEGRATE POST-CRASH CARE INTO YOUR HIGHWAY SAFETY PLAN



Highway Safety Program Guideline

No. 11 EMS (2016)

- “Each State...should ensure that persons incurring traffic injuries (or other trauma) receive prompt emergency medical care under...range of emergency conditions encountered...EMS program should be made up of the components...”

Regulation & Policy

Resource Management

Human Resources & Training

Transportation

Facilities

Communications

Trauma Systems

Public Information & Education

Medical Direction

Evaluation

<https://one.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/pages/EMS.htm>

911.gov



 **ems.gov**



EMS & 911 in the Safe System Approach: Post-Crash Care

Max Sevareid, NHTSA Office of Emergency Medical Services

NHTSA's Office of Emergency Medical Services (EMS) Mission



Reduce death & disability on our roadways



Provide leadership & coordination to EMS & 911 communities



Assess, plan, develop, & promote comprehensive, evidence-based EMS & 911 systems

Key DOT Actions for Post-Crash Care



- Improve delivery of EMS throughout the nation



- Improve availability & quality of national EMS data



- Improve EMS personnel on-scene safety through outreach & training

POST-CRASH CARE

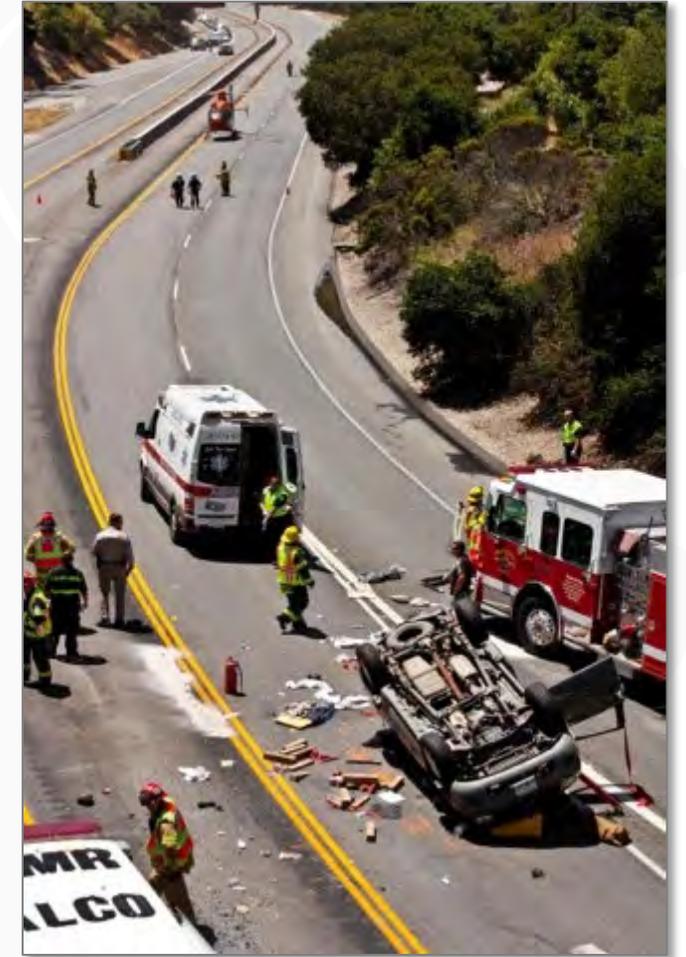


Provide
Expedient Access
to Emergency
Medical Care



EMS & 911 in Post-Crash Care

- **911 telecommunicators & EMS clinicians** are critical to successful crash response
- The **right care** at the **right time** prevents injuries from becoming fatal



Highway Safety Program Guideline

No. 11 EMS (2016)

- Direction to States in formulating HSPs supported w/ 402 & other grants
- “Each State...should ensure...persons incurring traffic injuries (or other trauma) receive prompt emergency medical care under...range of emergency conditions encountered...EMS program should be made up of the components...”

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Connect with Your EMS & 911 Counterparts

Identify obstacles to overcome through collaboration

- Meet: Who are your EMS & 911 leads?
- Learn: Average EMS times to care using local data?
- Work Together: partner in analysis & interpretation of EMS post-crash care data

What Do State 911 Offices Do?

Duties vary state to state, but include implementation & oversight of 911 programming such as:

- ✓ 911 network procurement & management
- ✓ 911 network technical standards (i.e., cybersecurity, SLAs, GIS, etc.)
- ✓ PSAP operational compliance & development of best practices for 911
- ✓ Data gathering & reporting for regulatory, legislative, and governance bodies, research & technical support to policy development
- ✓ Telecommunicator training standards oversight & administration
- ✓ Funding compliance & collection

[Source: National Association of State 911 Administrators \(NASNA\)](#)

What Do State EMS Offices Do?

- ✓ License paramedics & EMTs (>1 million nationally)
- ✓ License ground & air ambulance AGENCIES (18,000 ground / 750 air)
- ✓ Mandate or incentivize patient care records submission (Statewide data & NEMSIS)
- ✓ Manage systems of care for time-sensitive emergencies
- ✓ Designate hospitals as Trauma Centers
- ✓ Implement innovative programs to improve safety & outcomes



COUNTERMEASURES



**EMERGENCY
MEDICAL
DISPATCH**
(EMD) 911 PROTOCOLS



**TIMELY
ON-SCENE CARE**
USING MODEL EMS
CLINICAL GUIDELINES



**TRANSPORTATION
TO A TRAUMA CENTER**
BASED ON NATIONAL FIELD TRAUMA
TRIAGE GUIDELINES



**PERFORMANCE
MEASUREMENT**
FOR CONTINUOUS QUALITY
IMPROVEMENT AND SEAMLESS,
LINKED AND DATA-DRIVEN CARE

911 Emergency Medical Dispatch

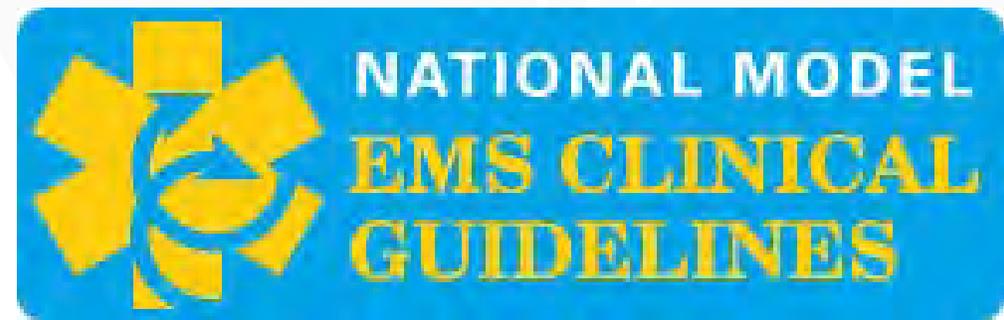
- **Learn:** ~47% of 911 centers use emergency medical dispatch (EMD)
 - **Work Together:** Can your 911 telecommunicators tell bystanders how to care for crash victims while waiting for EMS to arrive?
- **Learn:** Local EMS & 911 data may assist in mapping serious injury crashes
 - **Work Together:** How can this inform highway safety planning?

Timely On-Scene Care

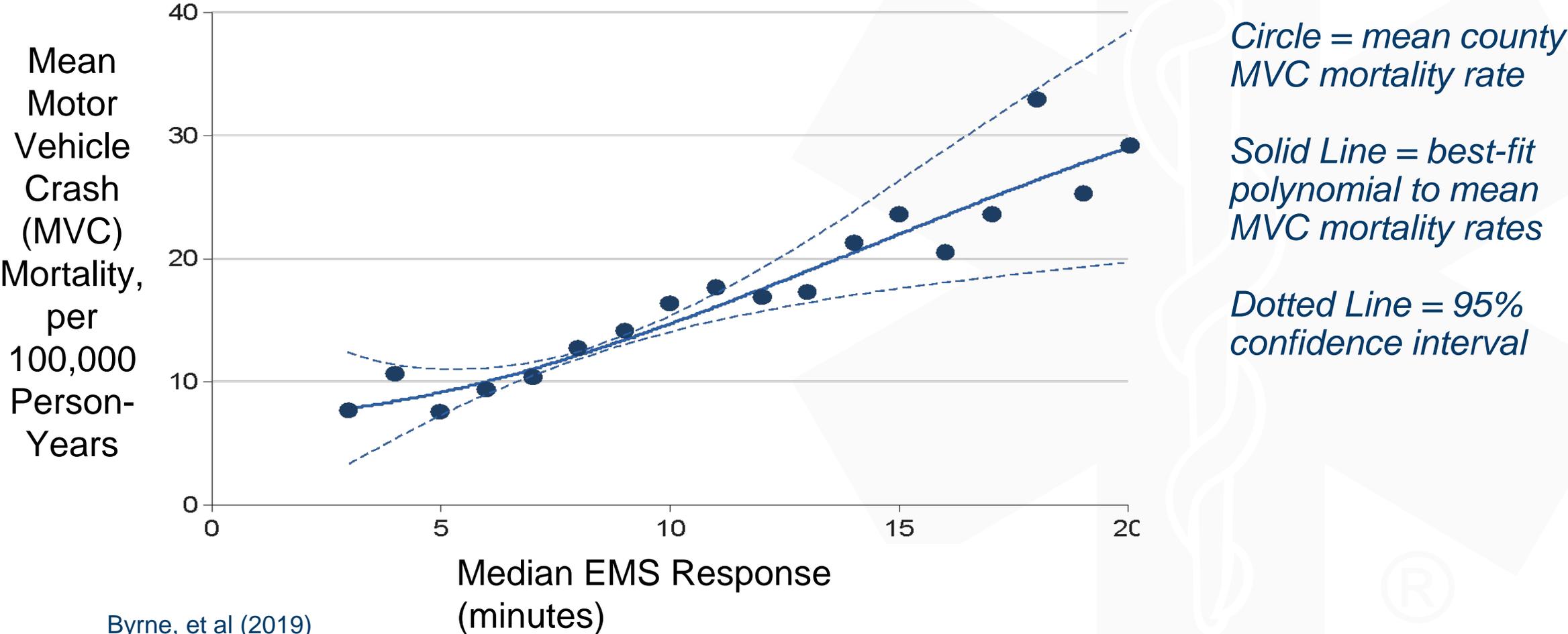


“...[L]onger EMS response times were associated with higher rates of MVC mortality...”

Byrne, et al. 2019



Timely, Effective Care Makes a Difference



Byrne, et al (2019)

Transportation to a Trauma Center



- Over one-third of seriously injured crash victims ARE NOT taken directly to a Level I or II Trauma Center



- There is a 25% increase in the odds of survival at a Level I trauma center



- 20% of trauma deaths are preventable with optimal EMS and trauma care

Performance Management

The National EMS Information System (NEMSIS) provides standardized EMS documentation & data collection practices to facilitate sharing of EMS data at local, state & national levels.



Photo: emergency-live.

NEMSIS is a core highway safety database and eligible for 405c funding

National EMS Advisory Council

Post-Crash Care Letter Excerpts



- Encourage **Emergency Medical Dispatch (EMD)** adoption so all 911 calls receive evidence-based pre-arrival instructions
- Support **NEMESIS** adoption and **data linkage**
- Encourage statewide adoption of **National Trauma Field Triage Guidelines** and **National EMS Model Clinical Guidelines**
- **Performance Measures** and Continuous Quality Improvement

Learn More



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HIGHWAY SAFETY PLANNING

SHSO & EMS FY23 Projects

MD: Child passenger safety

MI: Bystander care

MT: CPS, pediatric safe transport, TEAM training through RTACs

ND: Vision Zero & Primary Belt Law support

NV: Data Analysis

SD: EMS-C “Buckle Up Phone Down”, “I Choose”, CPS, bike/ped

WA: EMS performance indicators, WEMISIS, address geocoding

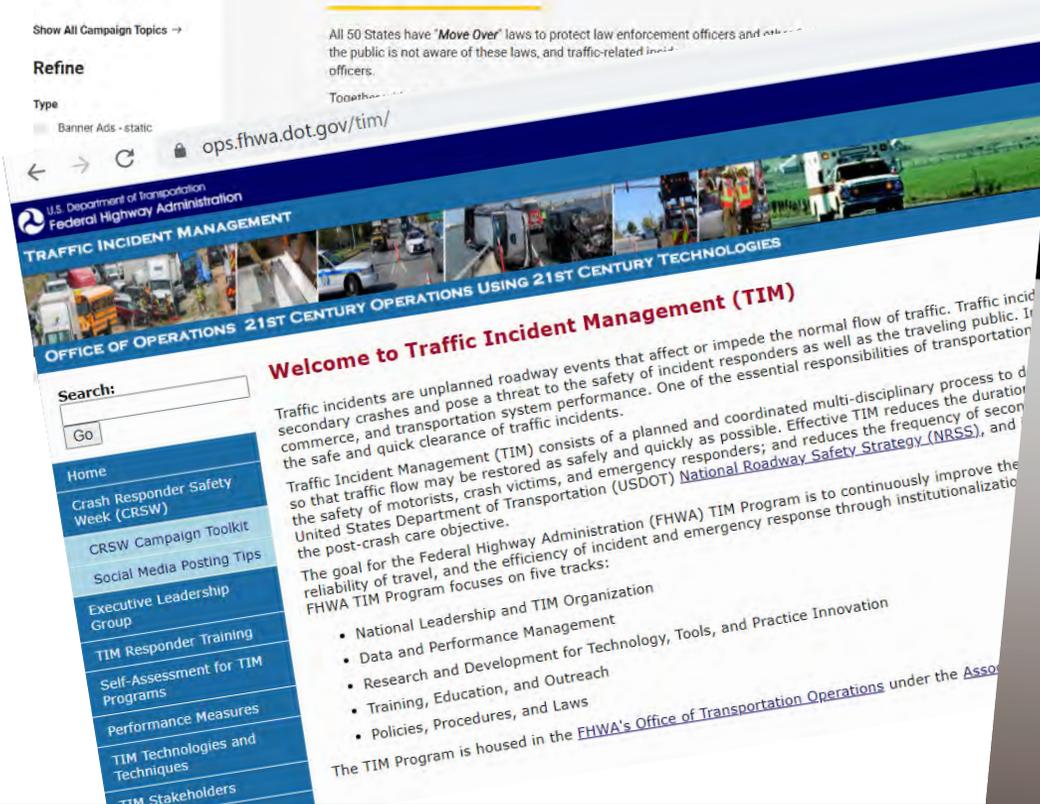
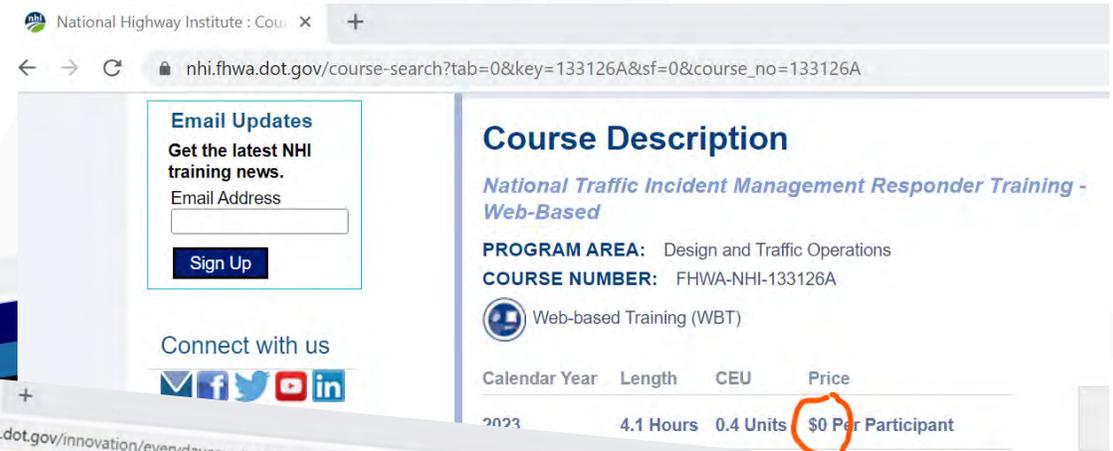
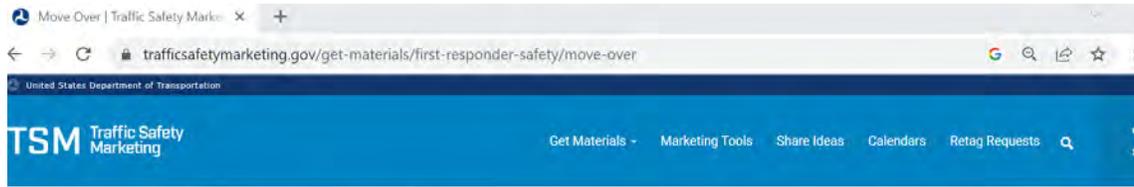
§ 1300.27 Preventing Roadside Deaths Grants

23 U.S.C. 405(h)

Eligible Uses:

- (1) Purchase/deploy digital alert technology that—
 - (i) receives alerts regarding nearby first responders
 - (ii) send alerts from emergency response vehicles to civilian drivers
- (2) Public information campaigns for reducing roadside deaths & injuries
- (3) Law enforcement protecting vehicles/individuals stopped at roadside
- (4) Identify, collect, & report crash data on vehicles/individuals stopped at roadside
- (5) Pilot/incentivize measures to increase visibility of stopped/disabled vehicles

Move-Over & Traffic Incident Management Resources



Move-Over & Traffic Incident Management Resources

Traffic Safety Marketing: <https://www.trafficsafetymarketing.gov/get-materials/first-responder-safety>

FHWA T.I.M.: <https://ops.fhwa.dot.gov/tim/>

T.I.M. basic, FREE training course:
https://ops.fhwa.dot.gov/tim/training/index.htm#_Free_Online_Self-Paced

As of: 03/13/23	Train-the-Trainer		Responder Training			Web-Based Training	Total Trained		Training Progress		
State	Number of Sessions	Total Trained	Number of Sessions	Total Trained	Last Training Date		Number	Rank	Responders To Be Trained	Percent Trained	Rank
Alabama	6	272	167	3,516	02/23/23	1,549	5,337	35	17,103	31.2%	41
Alaska	2	57	49	787	03/03/23	109	953	52	4,797	19.9%	48
Arizona	11	284	452	7,917	02/22/23	849	9,050	27	26,610	34.0%	39
Arkansas	4	175	113	3,306	02/22/23	7,625	11,106	21	13,588	81.7%	2
California	21	553	1,175	18,182	12/01/22	10,639	29,374	6	83,306	35.3%	37
Colorado	20	361	436	9,256	01/31/23	3,663	13,280	16	20,551	64.6%	13
Connecticut	2	89	80	2,048	03/09/23	1,058	3,195	42	4,091	78.1%	4

Share Non-State Funding Opps with Locals

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Safe Streets & Roads For All (SS4A) Grants

Funding supports local initiatives like “Toward Zero Deaths” to prevent death & serious injury on roads & streets

- \$5 billion in appropriated funds over the next 5 years.
- Approximately \$1 billion available annually.

911.gov



 **ems.gov**



Thank you!

Questions? Contact us!

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Data Quality

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Business Data Analysts
NEMESIS TAC

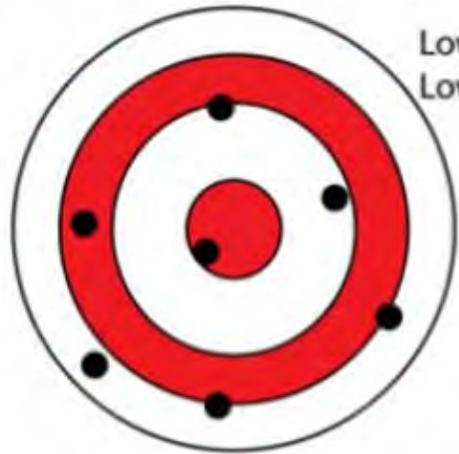


Goals

- Accuracy
- Timeliness
- Complete – sending all records successfully



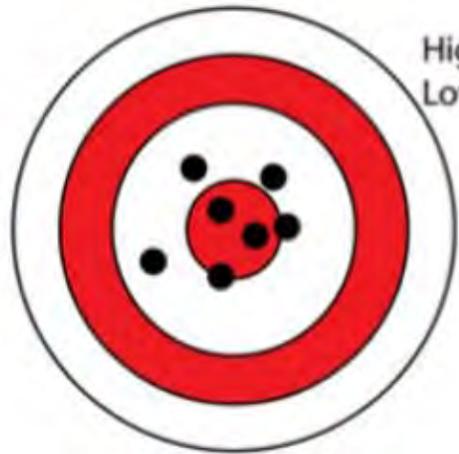
Accuracy and Reliability



Low accuracy
Low precision



Low accuracy
High precision



High accuracy
Low precision



High accuracy
High precision



Why is Data Quality Important?

- Public Health Surveillance Tool
- Data allows you to prove workforce needs
- Improve workplace safety and funding
- Accurate Data to share with you and other data users
- Over 300 public data set requests in 2022
- 1,630 Research Papers cited NEMESIS data
- Cube accessed 5,583 times in the last year



