

# Bloodborne Pathogens Standard Enforcement at the Occupational Safety and Health Administration: The First Twenty-Five Years

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## Goals

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Bloodborne pathogen exposures continue to be an occupational health concern of high importance.

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Uncertain whether national regulations and enforcement have an impact on employer action for reducing risk.

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Determine whether citations issued under the OSHA's Bloodborne Pathogens Standard (BPS) changed over time given these changing risks and controls.



# Data & Methods

# Data



Time Frame: 1991 to 2015



Analysis of 31,066 OSHA inspections.



77,142 citations issued.

# Methods

- OSHA has relied on two major electronic systems for tracking its enforcement work;
  - Integrated Management Information System, in use until 2012
  - OSHA Information System since then, with some overlaps.
- OSHA covers private- sector workers in 32 States (includes states, District of Columbia, and territories) and twenty-eight “State Plan States”.
- Data coded and analyzed in STATA

# Organization of Data | OSHA Information System:

- POTH = Planned Other,
- PP = Program Planned,
- PREL = Program Related,
- M = Monitoring, and
- FU = Follow-up,
- C = Complaint,
- F = Fatality,
- FC = Fatality/Catastrophe,
- REF = Referral,
- UNP = Unprogrammed,
- UNPREL = Unprogrammed Related, and
- UNPOTH = Unprogrammed Other.

# Organization of Data | Five-year time periods

- (1) 1991-1995 (OSHA BPS promulgated),
- (2) 1996-2000,
- (3) 2001-2005,
- (4) 2006-2010, and
- (5) 2011-2014.

2000 Needlestick Safety and Prevention Act;  
2001 Enforcement of Revised OSHA BPS



# Results



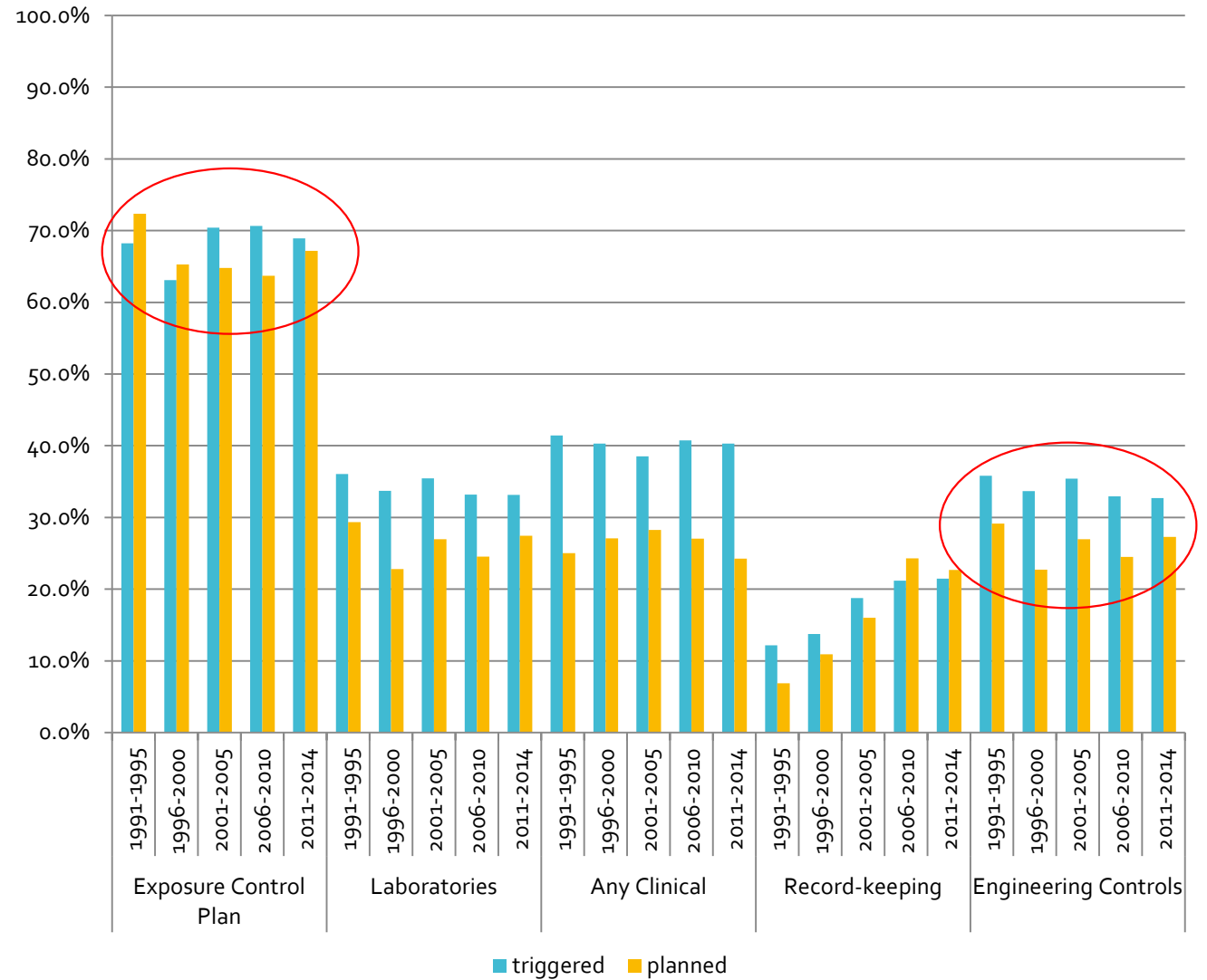
# Table 1: Total Number of Inspections by Time Period

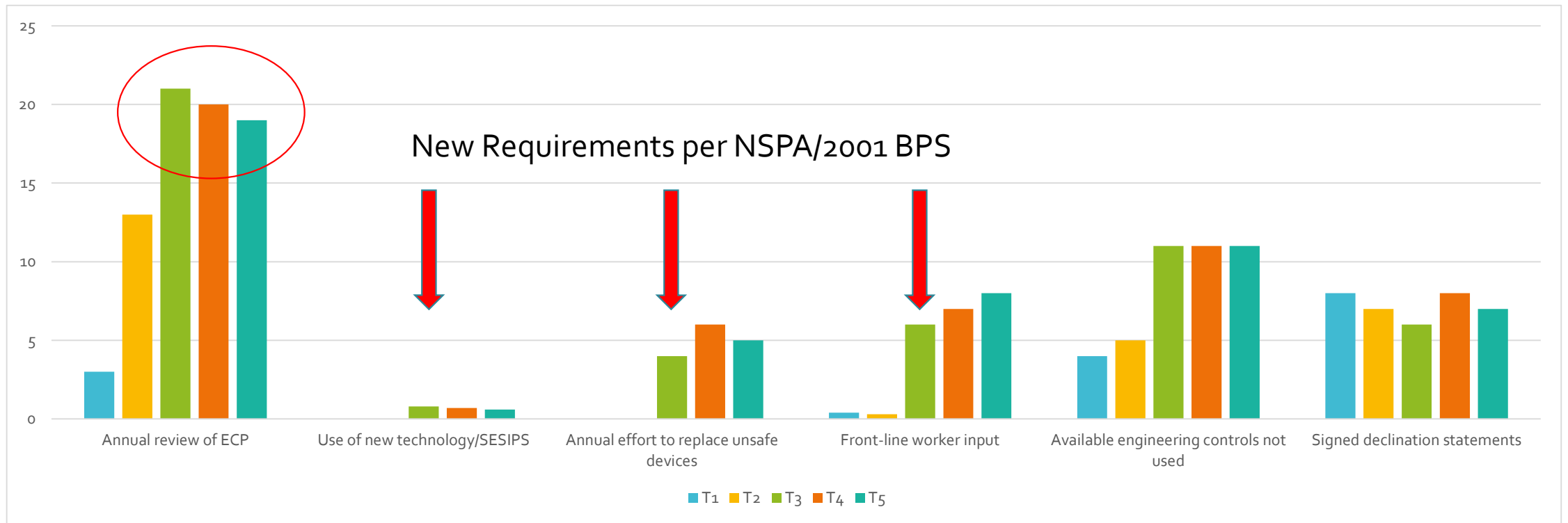
Time Period	Years in Time Period	Number of Inspections	Percent of Total BBPS Inspections
1	1991-1995	7,657	24.6
2	1996-2000	6,226	20.1
3	2001-2005	7,478	24.1
4	2006-2010	5,664	18.2
5	2011-2014	4,041	13.0
TOTAL	ALL	31,066	100.0%

Paragraph	Number of Inspections with at least one citation item	Percent of Inspections with at least one citation item	Number of Citation Items	Percent of Total Citation Items	Citation Items per Total Inspections
C. Exposure Control Plan	20,871	67.2	26,239	33.99	0.84
D. Engineering and Work Practice Controls	9,242	29.7	14,891	19.29	0.48
E HIV/HBV Research Laboratories and Production	9,281	29.9	76	0.1	0.00
F HBV/Post-Exposure Prophylaxis	10,137	32.6	12,743	16.51	0.41
G Communication of Hazards to Employees	12,791	41.2	15,987	20.71	0.51
H Recordkeeping	4,985	16.0	7,206	9.33	0.23
TOTAL	31,066		77,142		2.47

## Total Number of Citation Items for OSHA Bloodborne Pathogens Standard by Major Paragraph, 1991-2014

# Percent of Major Paragraphs Cited by Time Period-- Triggered versus Planned Inspections, 1991-2014





## Percent Change by Time Period\* of Citations of High Interest, 1991-2014

\* Time Period 1 = 1991-1995; 2 = 1996-2000; 3 = 2001-2005; 4 = 2006-2010; and 5 = 2011-2014  
 ("SESIPS" Sharps with engineered sharps injury protections)

# Probing Questions & Future Research

- Would improving injury/exposure surveillance (employer/employee), including electronic reporting (to OSHA, DOH, DPH) may improve more accurate illustration of what is going on in healthcare?
- Is injury/illness data more accurate illustration than OSHA inspection/citation data?
- Are OSHA inspections a window into compliance in healthcare generally?
- Do OSHA inspections result in safer work places and impetus to improve institutional controls (culture)?
- Have reductions in BPS inspections been product of increasing safety success or complacency about sharps injuries/BBFE?



Inability to randomly sample institutions



All BPS inspections, not just healthcare



Coding difficult based on transition of data sources and alternate coding of state plans




Inability to know if inspection resulted in follow-up and if inspection resulted in abatement; safer environments

# Limitations

Mitchell, A. H., Pannell, M. A., Arbury, S., Thomas, R., & Hodgson, M. J. (2019). Bloodborne Pathogens Standard Enforcement at the Occupational Safety and Health Administration: The First Twenty-Five Years. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*, 29(2), 172–185.

<https://journals.sagepub.com/eprint/AVA3BTCQIISZC9BFAVWP/full>



*Dedicated to the late Gary Senatore (OSHA DEP), who spent considerable time ensuring accuracy of the data.*

