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

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

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

Determine whether citations issued under the OSHA’s Bloodborne Pathogens Standard (BPS) changed over time given these changing risks and controls.
Data & Methods
Time Frame: 1991 to 2015

Analysis of 31,066 OSHA inspections.

77,142 citations issued.
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

2000 Needlestick Safety and Prevention Act; 2001 Enforcement of Revised OSHA BPS
Results
## Table 1: Total Number of Inspections by Time Period

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Years in Time Period</th>
<th>Number of Inspections</th>
<th>Percent of Total BBPS Inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1991-1995</td>
<td>7,657</td>
<td>24.6</td>
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<tr>
<td>2</td>
<td>1996-2000</td>
<td>6,226</td>
<td>20.1</td>
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<tr>
<td>3</td>
<td>2001-2005</td>
<td>7,478</td>
<td>24.1</td>
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<tr>
<td>4</td>
<td>2006-2010</td>
<td>5,664</td>
<td>18.2</td>
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<tr>
<td>5</td>
<td>2011-2014</td>
<td>4,041</td>
<td>13.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>ALL</td>
<td>31,066</td>
<td>100.0%</td>
</tr>
<tr>
<td>Paragraph</td>
<td>Number of Inspections with at least one citation item</td>
<td>Percent of Inspections with at least one citation item</td>
<td>Number of Citation Items</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>C. Exposure Control Plan</td>
<td>20,871</td>
<td>67.2</td>
<td>26,239</td>
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<tr>
<td>D. Engineering and Work Practice Controls</td>
<td>9,242</td>
<td>29.7</td>
<td>14,891</td>
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<tr>
<td>E HIV/HBV Research Laboratories and Production</td>
<td>9,281</td>
<td>29.9</td>
<td>76</td>
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<tr>
<td>F HBV/Post-Exposure Prophylaxis</td>
<td>10,137</td>
<td>32.6</td>
<td>12,743</td>
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<tr>
<td>G Communication of Hazards to Employees</td>
<td>12,791</td>
<td>41.2</td>
<td>15,987</td>
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<td>H Recordkeeping</td>
<td>4,985</td>
<td>16.0</td>
<td>7,206</td>
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<tr>
<td>TOTAL</td>
<td>31,066</td>
<td></td>
<td>77,142</td>
</tr>
</tbody>
</table>

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

(“SESIPS” Sharps with engineered sharps injury protections)
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?
Limitations

- Inability to randomly sample institutions
- Coding difficult based on transition of data sources and alternate coding of state plans
- All BPS inspections, not just healthcare
- Inability to know if inspection resulted in follow-up and if inspection resulted in abatement; safer environments

https://journals.sagepub.com/eprint/AVA3BTCQIISZC9BFAVWP/full
Dedicated to the late Gary Senatore (OSHA DEP), who spent considerable time ensuring accuracy of the data.