Implementing an Injury Prevention Program and its Impact on Warehouse Operations

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Background

ACME Organization
- Louisville based retail and supply chain management warehouse founded in 2012.
- Employee roster of 3,000 warehouse workers, commanding a 24/7 operation.
- Organization goal to reduce musculoskeletal disorders reported by site warehouse workers.
Purpose of Partnering Organization Project

- To decrease the total number of workers injured
- To decrease the total number of warehouse workers who require treatment beyond OSHA standards for first aid
- To decrease injuries while maintaining or improving warehouse production standards
- To transform ACME’s safety culture from reactive to proactive
Project Scope

- Care and prevention of musculoskeletal disorders
- Education programming related to injury prevention
- Project management as directed by the site manager
Approach

- Cultural and organizational evaluation
- New hire programming
- Behavior based safety
- Engineering based safety
Work Plan

Work Breakdown Structure
- Launched a work place stretching program.
- Created a new hire injury prevention training.
- Created a new hire injury prevention train the trainer presentation.
- Launched an ergonomic technique coaching program.
- Designed and launched an operations leadership continuous improvement through ergonomics program.
- Implemented a Job Hazard Analysis Program
- Established a change management procedure
<table>
<thead>
<tr>
<th>Task</th>
<th>Start Date</th>
<th>End Date</th>
<th>Duration (Days)</th>
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<tr>
<td>2016 Cultural Evaluation</td>
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<td>Job Hazard Analysis</td>
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<td>Job Hazard Analysis Enhancement</td>
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</table>
Risks and Constraints

Risks to Overall Project Objectives:
- Performance risk
- Operational leadership change risk
- Strategic risk
- Market risk
- Financial risk
Quality Assurance Plan

Quality Assurance Concerns
- Integrity of data reported to site and OSHA
- Data manipulation and falsification
- Project tracking methodology
  - PDCA Cycle
  - Kaizen Principles
## Results and Benefits

<table>
<thead>
<tr>
<th>YOY</th>
<th>Units</th>
<th>Hours</th>
<th>U/Hr</th>
<th>Incidents</th>
<th>NH I%</th>
<th>IR</th>
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</thead>
<tbody>
<tr>
<td>15/16</td>
<td>21%</td>
<td>4%</td>
<td>14%</td>
<td>-27%</td>
<td>-68%</td>
<td>-34%</td>
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<tr>
<td>16/17</td>
<td>5%</td>
<td>-12%</td>
<td>19%</td>
<td>-12%</td>
<td>-59%</td>
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<tr>
<td>17/18</td>
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<td>-14%</td>
<td>15%</td>
<td>-25%</td>
<td>-43%</td>
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<tr>
<td>Change</td>
<td>24%</td>
<td>-21%</td>
<td>55%</td>
<td>-51%</td>
<td>-56%</td>
<td>-42%</td>
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Overall Project Return on Investment: 821%
Reflection

- Trust is earned not expected
- Speed of trust is important for overall project implementation
- Project management is just as important as relationship management
- Potential for project scope creep, keep true to your purpose
Areas of Future Study

- Human factors engineering and how it impacts human performance.
- Mental health and its impact on human performance.
- Adverse Childhood Experiences (ACES) and its impact on human performance.
References