

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

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

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



Task	Start Date	End Date	Duration (Days)
2016 Cultural Evaluation	3/18/2016	5/31/2016	74
New Hire Orientation Program	6/1/2016	11/14/2016	166
Stretching Program Launch	7/1/2016	7/31/2016	30
2017 Strategic Planning	1/1/2017	1/31/2017	30
New Hire Train the Trainer (1)	4/1/2017	4/15/2017	14
New Hire Train the Trainer (2)	10/1/2017	10/14/2017	13
Ergonomic Technique Coaching Program	03/31/2017	5/31/2017	60
Job Hazard Analysis	9/1/2017	10/31/2017	60
2018 Strategic Planning	1/1/2018	1/31/2018	30
New Hire Train the Trainer (1)	7/1/2018	7/14/2018	13
Change Management/CIC	1/15/2018	8/15/2018	212
Job Hazard Analysis Enhancement	6/18/2018	8/1/2018	44

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

YOY	Units	Hours	U/Hr	Incidents	NH I%	IR
15/16	21%	4%	14%	-27%	-68%	-34%
16/17	5%	-12%	19%	-12%	-59%	2%
17/18	-2%	-14%	15%	-25%	-43%	-13%
Change	24%	-21%	55%	-51%	-56%	-42%

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 for Future Study

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.



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