Safety & **Health** and Wellness

Enhancing Our Safety Culture Through Collaboration

Institute of Industrial & Systems Engineers Webinar

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Kim Silbaugh, MHS, CHES  
*Lockheed Martin Corp. Health Promotion Specialist*

Steven P. Wish, MS, CIH, CSP  
*Lockheed Martin Corp. Safety Engineer*

Anthony Banks, Ph.D., PE, CPE, CSP  
*Lockheed Martin Corp. Ergonomist*
Global Partnerships for the 21st Century
Productive, Available, High Performing People
The Men and Women of Lockheed Martin

- 126,000 Employees
- 572 Facilities in 500 Cities and 50 States Across the US
- Operating in 70 Nations and Territories

Partners Helping Customers Achieve Their Goals
Business Structure

Aeronautics

Information Systems & Global Solutions

Missiles and Fire Control

Mission Systems & Training

Space Systems

International
Target Zero: Overview and Evolution

- Injury Free Workplace
- “Zero Accidents” Mentality
- Culture of Accountability
- Targeted Risk Reduction
- Employee Engagement
- Partnership With Health and Wellness Organization

Safety Performance

LMC Positive Trend With Opportunity Remaining
Health & Wellness: Overview and Evolution

Our Historic Priorities

- Occupational Health
- Employee Well-Being

Where We Are Heading

- Occupational Health and Employee Well-Being as Core Services
- Productivity and Performance Connection
- Health as an Extension of Talent Management
- Health as an Extension of Sustainability

Become a Partner of Choice

- Incentives
- Wellness Centers
- Onsite Flu Shot Program
- Virgin Pulse Physical Activity Program
- Healthy Food Services
- Walking Paths
- Etc…
Historical Perspective

**Environment, Safety, and Health**
- Hazard Reduction
- OSHA Recordables
- Accountability
- Illness and Injuries
- Health Protection

**Health & Wellness**
- Disability
- Surveillance
- Incentives
- Chronic Conditions
- Healthy Lifestyles
- Health Promotion

Generally, operating in silos with limited visibility to organizational priorities and actions. Limited combined health promotion and health protection.

Most collaboration for occupational health
Health and Injury Connection

• Higher likelihood of injury associated with health risks
  – Overweight
  – Smoke
  – Chronic conditions (e.g., heart disease, diabetes)
  – Depressed
  – Lack sleep

• Integrated approaches have broad value
  – Improve effectiveness
  – Increase participation in health promotion programs
  – Enhance a culture of trust
  – Address synergistic risks
Getting Started: First Summit

Summit Preparation
- Secured leader commitment
- Developed charter

During Summit
- Shared organizational charts, goals, perspectives
- Determined common goals
- Established workstreams to address common goals
  - Leader engagement
  - Communications
  - Data Analytics
- Confirmed ongoing reporting plans

- Stronger relationships
- Active progress to develop integrated resources
LMC’s Resilience Framework

Resilience - The ability to not be brought low by or to bounce back quickly from hardship

**Be Active**
- Movement
- Exercise

**Eat Right**
- Frequency
- Content

**Recharge**
- Stress Management
- Sleep
# Resilience and Safety Overlaps

<table>
<thead>
<tr>
<th>Resilience Component</th>
<th>Sub-component</th>
<th>Impact on Safety</th>
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</thead>
<tbody>
<tr>
<td>Be Active</td>
<td>Movement</td>
<td>• Ergonomic risk reduction&lt;br&gt;• Enhanced focus</td>
</tr>
<tr>
<td></td>
<td>Exercise</td>
<td>• Fewer onsite cardiac events&lt;br&gt;• Maintain fitness for duty&lt;br&gt;• Maintain joint mobility</td>
</tr>
<tr>
<td>Eat Right</td>
<td>Frequency (i.e., eating regularly)</td>
<td>• Minimize frustration&lt;br&gt;• Better decision making</td>
</tr>
<tr>
<td></td>
<td>Content (i.e., eating light)</td>
<td>• Avoid drowsiness&lt;br&gt;• Remain alert</td>
</tr>
<tr>
<td>Recharge</td>
<td>Sleep</td>
<td>• Avoid drowsiness&lt;br&gt;• Remain alert</td>
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<td>Stress Management</td>
<td>• Reduce frustration&lt;br&gt;• Better decision making</td>
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Communications Sub-team

Identify common terminology and themes
Identify and utilize new channels for common messaging

• Select Accomplishments
  – Standard process for message integration and collaboration
  – Wellness Wednesdays in Safety Calendar App
  – Healthy Meeting Toolkit distributed
  – Resilience article and Safety Jeopardy category for 2015 Safety Month
  – Collaborative Ergo Cup campaign
  – Cross-linked websites
Leadership Engagement Sub-team

Create a persuasive value proposition for an integrated approach. Engage leadership through trainings, communications, local activities, etc.

• **Select Accomplishments**
  – Assessment of vendor training courses
  – Completed integrated Ergo SIAs
  – H&W messages in EESH Leader Training
  – Feedback to and support of Healthy Food Services Project
Data Sub-team

Integrate TZ and H&W metrics to allow correlation of data for analysis
Focus our efforts on targeted risk reduction areas that we can influence

- **Select Accomplishments**
  - Completed proof of concept for ESH data extract combined with H&W data warehouse
  - Prevalence of H&W conditions and health behaviors of focus by Lockheed Martin Standard Injury and Illness (LMSII) record of injury intensity
  - Completed LMSII data installation in the H&W data warehouse
Pilot Study

Targeted Risk Reduction Areas That We Can Influence

- Lost Workday
- Restricted Duty
- Medical Only
- First Aid Only

Health & Wellness + Eligibility Data
- Demographics
- Edington Health Risks (individual factors and overall category)
- Health Conditions
- Personal Health Assessment
- Type and Number of Medications
- Wellness Program Participation
- Metabolic Syndrome Factors
- Smoking Status
- (other)

Employee Factors

LMSII Data: Root Cause Analysis

Years 2011-2013

Non-Injured Matched Controls (developed from data warehouse)

Non-Employee Factors

4 master case lists from EESH to Truven

(remove these as cases based on actions or conditions outside the employee’s control)
Pilot Study Conclusions

• The pilot study (conducted outside the data warehouse) evaluated ‘employee factor’ LMSII injuries from 2011 – 2013 against Health & Wellness data

• Odds ratios were used to explore the relationship between various health risks and work-related injury, interpreted as:
  – The odds of having a work-related, employee-based injury, given that the employee has a certain health risk factor compared to if they do not have the health risk factor

<table>
<thead>
<tr>
<th>Health Risk Factor</th>
<th>Odds Ratio (95% CI)*</th>
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<tbody>
<tr>
<td>Diabetes</td>
<td>Not Sig</td>
</tr>
<tr>
<td>Heart Problems</td>
<td>Not Sig</td>
</tr>
<tr>
<td>Arthritis</td>
<td>1.20 (1.11 – 1.30)</td>
</tr>
<tr>
<td>Low Back Pain</td>
<td>1.35 (1.23 – 1.47)</td>
</tr>
<tr>
<td>Stress</td>
<td>1.24 (1.11 – 1.38)</td>
</tr>
<tr>
<td>Lack of Recharge Activities</td>
<td>Not Sig</td>
</tr>
<tr>
<td>Lack of Physical Activity</td>
<td>1.19 (1.07 – 1.32)</td>
</tr>
<tr>
<td>Lack of Eating Right</td>
<td>Not Sig</td>
</tr>
<tr>
<td>Lack of Health Awareness</td>
<td>Not Sig</td>
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We found a significant positive association between the presence of arthritis, low back pain and stress (as well as lack of physical activity) and the odds of having a work-related, employee-based injury.
Next Steps

- Continuation of Collaboration Sub-teams
- Expanded Data Analysis
- Expansion of Target Zero and Health and Wellness Collaboration to International sites.