An Apple a Day – Does it Keep the Doctor Away: The effectiveness of wellness programs

Felicia Gomez, Ph.D. and Matt Basgall, Chief
Objectives

- Customization of Programs
  - A highly effective worksite wellness program cannot be “cookie cutter”/“one size fits all” but instead needs to be customized

- Population Demographics
- Creating the Program
- Overcoming Challenges and Barriers
- Program Evaluation
The Process

Programs should be customized

- Demographics
- Needs
- Goals

1. Survey
2. Research
3. Pilot Program
4. Communication
5. Implementation
6. Overcome Challenges
7. Program Evaluation
Objectives:

- Clovis Police Department serves as a case study to outline the evolution of a very successful workplace wellness program for first responders in California.
Lifestyles

- Unhealthy lifestyles are the status quo
- If people don’t change their unhealthy lifestyles, the consequences will cause them to pay dearly for it in more ways than they ever imagined.

“What fits your busy schedule better, Exercising for 1 hour a day or being dead 24 hours a day?”
Where do we spend most of our time?

Since 63% of the adult population is employed, workplaces provide an excellent opportunity to expose a large number of adults to health promotion programs.
Research Says...

- More than 50% of employer health care costs are due to modifiable risk factors
  - Obesity
  - Poor diet
  - Smoking, tobacco use
  - Physical inactivity

- Higher direct health care costs
- Higher rates of disability
- Higher rates of injury
- Lower work output
- Higher rates of absenteeism
- More workers’ compensation claims
What does this mean?

- It means we can make decisions that affect our own health, and we can help others make positive lifestyle changes that will affect their health.
Factors affecting Health and Wellbeing

- **Lifestyle** = 53%
- **Environment** = 21%
- **Genetics** = 16%
- **Health Care** = 10%
Is there anything YOU can do to improve YOUR health and well-being!?

84% is in YOUR HANDS
What does this mean?

It means that an **effective** workplace wellness program can result in healthier employees, fewer medical visits, lower medical costs, improved employee morale and absenteeism, and an overall competitive advantage.

Create a culture of good health.
Customization of Program
Customization of Programs

Effective wellness programs should be tailored to the specific work place.

Conduct a Needs Assessment

- There are many components that can be part of a wellness program.
- A needs assessment will provide information on specific job tasks employees perform.
- Health risk stratification (primary health conditions of employees) is another important factor in services provided.
Customization of Programs

- A needs assessment can be conducted via a survey or observation (ride along, walk through of factory/plant, drill tower training, etc.)

- Taking the time to determine specific functions of the employees should be a key factor in deciding factors to include in a workplace wellness program.
Customization of Programs

Environment

- Many factors make up the environment of an organization
  - Socioeconomic status
  - Morale of employees
  - Trust of administration
  - Sedentary? Active?
  - Incentive?
  - Voluntary? MOU?

- All these factors will dictate what services should be provided and the approach that should be taken to market and advertise the program.
Customization of Programs

Culture

- Culture is the character and personality of the organization
  - Is the culture reactive? Or proactive?
Customization of Programs

Culture

- Senior administration and middle management drive workplace culture.
- In order for wellness programs to be successful in the workplace, all levels of administration need to be involved.
  - Does administration participate in the wellness program?
  - Does administration lead by example?

OR
Population Demographics
Population Demographics

- One primary driving factor in increasing health care costs is obesity.
- An obese individual will cost on average $1,492 more than an individual with healthy body composition.
- Average male - 198 lbs
- Average female - 171 lbs
Americans get heavier.

Average weight of American men and women, 1960–2010
Obesity Trends Among U.S. Adults BRFSS, 2011
Obesity Trends Among U.S. Adults BRFSS, 2012
Obesity Trends Among U.S. Adults BRFSS, 2013
Obesity Trends Among U.S. Adults BRFSS, 2014
Obesity Trends Among U.S. Adults BRFSS, 2015
Obesity Trends Among U.S. Adults BRFSS, 2016
Obesity Trends Among U.S. Adults BRFSS, 2017
Summary

- No state had a prevalence of obesity less than 20%.
- 2 states had a prevalence of obesity between 20% and <25%.
- 19 states had a prevalence of obesity between 25% and <30%.
- 22 states had a prevalence of obesity between 30% and <35%.
- 7 states had a prevalence of obesity of 35% or greater.
Population Demographics

- 69% of the general population are either overweight or obese (39.5% obese; 29.5%)
- It appears not all jobs are considered equal.
- Some professions have higher obesity rates than others.
Population Demographics

Obesity prevalence %

- Life, physical, and social science
- Art, entertainment, and media
- Healthcare practitioners and technical
- Food preparation and serving related
- Legal
- Building and maintenance
- Sales and related
- Education, training, and library
- Business and financial operations
- Computer and mathematical
- Construction and extraction
- Farming, fishing, and forestry
- Management
- Installation, maintenance, and repair
- Office and administrative support
- Production
- Personal care and service
- Transportation and material moving
- Architecture and engineering
- Healthcare support
- Community and social service
- Protective service
The general population has an obesity rate of 39.5%.

The obesity rate among Public Safety is 41%.

Doctors and scientists have the lowest obesity rate at 14.7%.
Population Demographics

- Reasons:
  - Ethnicity
  - Age
  - Education level
  - Job stress
  - Environment
  - Shift work
  - Culture of workplace
Population Demographics

- Cardiovascular Disease
  - # 1 killer in the US
  - 45% of on-duty deaths for firefighters are due to a cardiovascular event. This is 2.5x higher than other occupations.
Creating the Program

- There are numerous services that can be part of a wellness program:
  - Biometric Screenings
  - Health Screening
  - Fitness Testing
  - Wellness Coaching
  - Functional Movement Screenings (FMS)
  - Wellness Challenges
  - Education
  - Ergonomic Assessments
Creating the Program

What is chosen should be based on needs assessment, risk stratification, and population demographics

<table>
<thead>
<tr>
<th>Service</th>
<th>Office Employee</th>
<th>Field Worker</th>
<th>Public Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biometric Screenings</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Health Screening</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Fitness Testing</td>
<td></td>
<td>?</td>
<td>X</td>
</tr>
<tr>
<td>FMS Assessments</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Education</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ergonomic Assessments</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Challenges</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Creating the Program

- Knowing your audience is KEY to success
- City-wide program vs. Public Safety

<table>
<thead>
<tr>
<th></th>
<th>City-wide program</th>
<th>Public Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes</td>
<td>Gentle yoga</td>
<td>Foam rolling</td>
</tr>
<tr>
<td></td>
<td>Low impact circuit training</td>
<td>Mobility/balance</td>
</tr>
<tr>
<td>Education</td>
<td>General mental wellness</td>
<td>PTSD/stress reduction</td>
</tr>
<tr>
<td></td>
<td>General nutrition</td>
<td>Healthy eating on the go</td>
</tr>
<tr>
<td>Challenges</td>
<td>Topics: general health</td>
<td>Topics: unique needs</td>
</tr>
<tr>
<td>Screenings</td>
<td>Basic biometrics</td>
<td>Stress tests/fitness testing</td>
</tr>
<tr>
<td>Ergonomics</td>
<td>Office assessments</td>
<td>Field assessments</td>
</tr>
</tbody>
</table>
Creating the Program

Goals

While the general goal is to improve overall health and wellness, different demographics have different needs and therefore different strategies to reach their goals:

- Public safety and some field workers work odd hours – wellness program needs to accommodate.
- Unique needs such as irregular schedule, disrupted sleep patterns, hostile environment should be addressed with public safety.
Creating the Program

- Marketing strategies need to target the audience and will be different based on audience
  - E.g. Office workers read emails vs. field workers or public safety

- Delivery of information needs to be different
  - E.g. Office workers are more likely to be at a desk, so going to a lunch and learn/seminar during work hours is possible
  - Public safety have training days that could be the best avenue for information delivery
  - Field workers may have safety meetings as a means to present information
Overcoming Challenges and Barriers

- Challenges and Barriers
  - Employee Interest
  - Resources and Funds
  - Employee Engagement
  - Upper Management Support
Implementing a Health and Wellness Program into the Clovis Police Department

Chief Basgall
Personal Story

- Athlete
- Poor Eating Habits
- Overweight (250 plus)
- Body Issues-Injuries
- Diabetic
Clovis Police Department Wellness Program

- History
- Attempted in the 80s
- Brought back in the 90s
- Recession goes away in 2008
- Brought back in 2012
Wellness Program

- Evolution of the program
- Culture shift
- Buy-in from the Union (working groups)
- MOU
- Cost
- Valid law enforcement standards
Why it is important?

- Retirement Age
- General Health
- Today’s Criminal
- Today’s Laws
- Mental Health
- Overall Better Health and Recovery
Program Evaluation
Program Evaluation

- **Subjective**
  - Health risk assessments
  - Testimonials

- **Objective**
  - Biometric data
  - Claims data
Is there a Return on Investment?

- Healthier work place
- Less sick leave
- Higher morale
- Greater productivity
- Lives saved
- Less workers’ compensation claims
- Less medical claims
Claims Data

- Claims were increasing until the department implemented health screening and fitness testing.
- Claims decreased until 2016 when there was an increase for the 1st time since program implementation.

![Police Department Number of Claims Reported by Fiscal Year](chart.png)
Total Dollars Paid for Claims

- Dollars paid are still lower than 2012.

![Bar chart showing Police Department Medical Paid by Fiscal Year from FY 2010 to FY 2016.](chart.png)
Total Medical Dollars Paid

- There has been a 54% decrease in the total medical dollars paid since 2012. Total dollars paid in 2016 are lower despite an increase in claims.
Indemnity dollars for temporary disability continued to increase with no program, since the implementation of their current program, average costs are reduced by 65% and by 87% in 2016 vs 2012.
# Large School District

<table>
<thead>
<tr>
<th></th>
<th>Participant</th>
<th>Non-participant</th>
<th>$$ Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>47.6</td>
<td>43.7</td>
<td></td>
</tr>
<tr>
<td>Medical Cost (PMPY)</td>
<td>$3,080</td>
<td>$4,440</td>
<td>$1,360</td>
</tr>
<tr>
<td>Rx Cost (PMPY)</td>
<td>$1,842</td>
<td>$2,467</td>
<td>$625</td>
</tr>
<tr>
<td>Total Cost (PMPY)</td>
<td>$4,922</td>
<td>$6,907</td>
<td>$1,985</td>
</tr>
</tbody>
</table>

PMPY = per member per year
Potential Cost Savings for a City-Wide Program

<table>
<thead>
<tr>
<th>Disease Marker</th>
<th>%/# Reducing Risk</th>
<th>Annual Direct Medical Cost/Person</th>
<th>Annual Direct Absenteeism Cost/Person</th>
<th>$$ Potentially Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>25%; 18</td>
<td>$1,920</td>
<td>$298</td>
<td>$39,924</td>
</tr>
<tr>
<td>CVD (fat intake, HDL, WC)</td>
<td>8.3%; 5.5</td>
<td>$18,953</td>
<td>$2,315</td>
<td>$116,975</td>
</tr>
<tr>
<td>Cost of Obesity (body fat)</td>
<td>7%; 5</td>
<td>$1,723</td>
<td>$269</td>
<td>$9,960</td>
</tr>
<tr>
<td>Insufficient physical activity</td>
<td>28%; 19</td>
<td>$1,437</td>
<td>$269</td>
<td>$32,414</td>
</tr>
<tr>
<td>Smoking</td>
<td>3%; 2</td>
<td>$3,938</td>
<td>$166</td>
<td>$8,208</td>
</tr>
<tr>
<td>Colon Cancer (diet analysis)</td>
<td>18%; 12</td>
<td>$3,000</td>
<td>$8,841</td>
<td>$142,092</td>
</tr>
<tr>
<td>Total Saved Annually:</td>
<td></td>
<td></td>
<td></td>
<td>$349,573</td>
</tr>
</tbody>
</table>
Lessons Learned

- An effective workplace wellness program needs to be tailored to the audience it serves.
  - A one size fits all will not result in the same outcome as a customized program.

- An effective workplace wellness program will...
  - Save lives
  - Reduce health care costs
  - Produce happier and healthier employees
  - Result in a return on investment
Questions?
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