The Complete Health Improvement Program: A Solution For Employers
## Typical Workforce Health Stats – 2017

<table>
<thead>
<tr>
<th>Condition</th>
<th>% of workers with this condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity</td>
<td>45%</td>
</tr>
<tr>
<td>Overweight</td>
<td>30%</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>30%</td>
</tr>
<tr>
<td>Pre-hypertensive</td>
<td>52%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>11%</td>
</tr>
<tr>
<td>Pre-diabetes</td>
<td>28%</td>
</tr>
<tr>
<td>High LDL cholesterol</td>
<td>21%</td>
</tr>
<tr>
<td>Borderline high</td>
<td>30%</td>
</tr>
</tbody>
</table>

21% of your workers have 2 or more of these conditions

National averages provided by Vital Incite's 2017 book of business
Do employees with these conditions cost your health plan more?
Employee Claims, Part I

Data provided by Vital Incite Book of Business 2017

BMI

Annually, obese individuals cost $1,436 more in healthcare expenses than those with a desirable BMI. Additionally, they incur over $500 in lost productivity costs.¹

BLOOD PRESSURE

Individuals identified with hypertension cost $7,854 more in annual healthcare costs than those identified without the condition.

**Employee Claims, Part II**

*Data provided by Vital Incite Book of Business 2017*

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**CHOLESTEROL**

Individuals with cardiovascular disease* cost $6,886 more in annual healthcare costs than those identified without cardiovascular disease.

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**GLUCOSE**

Diagnosed diabetics cost more than $8,817 in annual healthcare costs than non-diabetics. Also, it is estimated that 70% of pre-diabetics will eventually develop diabetes.²

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*Includes Lipid disorders, Ischemic Heart Disease, and Hypertension

²https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3891203/
An Example of Obesity Claims in a Workplace

![Chart showing per member per year cost for different obesity conditions in Indiana and national averages.](chart.png)
Claims Costs by Number of Risk Factors

*Metabolic Syndrome is considered three or more risk factors

Source: Birnbaum, JOEM, Volume 53, Number 1, January 2011, p. 27-33.
Claims data compiled from Chevron Texaco Corporation, San Ramon, California employees
What Approach Can We Take to Reverse These Alarming Trends?
Evidence now demonstrates that the great majority of these conditions and the claims that result from them are **lifestyle related**...
CHIP is a lifestyle change program that can halt and even reverse these conditions and reduce related claims...
Facts About Lifestyle Behavior

Lifestyle accounts for 75% of national medical costs and associated chronic diseases.

Sources: Centers for Disease Control, 2006; Stampfer, 2000; Platz, 2000; Hu, 2001
Lifestyle changes—better nutrition, more exercise, less stress—were responsible for most of the gains.

Healthy employees are more productive employees, according to new research bolstering the case for corporate wellness programs.
National Institute of Health Diabetes Prevention Study

(Involved 3,234 participants who were overweight and pre-diabetic)

- Participants who received lifestyle behavioral changes reduced their risk of developing diabetes by 58%. (Participants over 60 reduced their risk by 71%.)
- Participants taking metformin reduced their risk of developing diabetes by 31%.

Recommendation: The USPSTF recommends offering or referring adults who are overweight or obese and have additional CVD risk factors to intensive behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention. (B recommendation)
• CHIP is an intensive behavioural counseling program with proven results based on years of scientific research.

• Participants commit to make lifestyle changes for just nine weeks. Health improvements become apparent during that time.

• Change happens in the way you eat, move, and think. CHIP challenges participants to change for the better!
- Video-based lifestyle intervention:
  - 18 sessions
  - 60 minutes
  - Group or virtual setting

- Education; practical experience; reinforcement

- Behavior change focus

- Biometric pre/post data captured to prove results

“Whole of Health” approach
### Biometric data of 5,000 CHIP participants

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>N Baseline</th>
<th>N Post-Intervention</th>
<th>Baseline Mean (SD)</th>
<th>Post-Intervention Mean (SD)</th>
<th>Mean Change</th>
<th>% Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholesterol (mg/dl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimal (&lt;160)</td>
<td>631</td>
<td>1,682</td>
<td>141.0 (18.7)</td>
<td>133.2 (24.8)</td>
<td>-7.8</td>
<td>-5.6</td>
</tr>
<tr>
<td>Elevated (160-199)</td>
<td>2,116</td>
<td>1,781</td>
<td>182.5 (15.7)</td>
<td>165.5 (24.4)</td>
<td>-17.0</td>
<td>-9.3</td>
</tr>
<tr>
<td>High (200-239)</td>
<td>1,261</td>
<td>756</td>
<td>215.6 (10.5)</td>
<td>188.5 (25.5)</td>
<td>-27.1</td>
<td>-12.6</td>
</tr>
<tr>
<td>Very High (240-280)</td>
<td>478</td>
<td>183</td>
<td>254.7 (10.7)</td>
<td>215.2 (30.7)</td>
<td>-39.5</td>
<td>-15.5</td>
</tr>
<tr>
<td>Dangerous (&gt;280)</td>
<td>126</td>
<td>30</td>
<td>306.6 (27.2)</td>
<td>245.9 (43.4)</td>
<td>-60.7</td>
<td>-19.8</td>
</tr>
<tr>
<td>Triglycerides (mg/dl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimal (&lt;100)</td>
<td>3,053</td>
<td>3,232</td>
<td>95.5 (29.7)</td>
<td>99.7 (41.8)</td>
<td>4.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Above Optimal (100-199)</td>
<td>753</td>
<td>765</td>
<td>171.9 (13.9)</td>
<td>158.1 (13.9)</td>
<td>-13.8</td>
<td>-8.1</td>
</tr>
<tr>
<td>Borderline (200-500)</td>
<td>820</td>
<td>663</td>
<td>270.5 (62.4)</td>
<td>220.1 (62.4)</td>
<td>-50.3</td>
<td>-18.6</td>
</tr>
<tr>
<td>Very High (&gt;500)</td>
<td>45</td>
<td>11</td>
<td>634.7 (114.2)</td>
<td>354.8 (114.2)</td>
<td>-279.9</td>
<td>-44.1</td>
</tr>
<tr>
<td>Fasting Glucose (mg/dl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal (&lt;100)</td>
<td>3,716</td>
<td>4,026</td>
<td>90.7 (9.9)</td>
<td>86.6 (10.9)</td>
<td>-2.1</td>
<td>-2.3</td>
</tr>
<tr>
<td>Impaired (110-125)</td>
<td>390</td>
<td>304</td>
<td>116.1 (15.5)</td>
<td>106.0 (15.5)</td>
<td>-10.1</td>
<td>-8.7</td>
</tr>
<tr>
<td>Diabetes (&gt;125)</td>
<td>525</td>
<td>301</td>
<td>164.0 (42.2)</td>
<td>131.4 (34.5)</td>
<td>-32.6</td>
<td>-19.9</td>
</tr>
</tbody>
</table>
Participate in facilitated “community engagement” sessions (either in-person or through a web conference).

Discuss what you learned in the videos and how it can be applied to your daily living.
Watch the assigned video. (We recommend doing this at home with individuals in your support network). Video links are available on the CHIP website. The textbook reinforces the video content.

Complete the quiz corresponding to the video.
Corporate CHIP Class: What to Expect

Complete the workbook assignments.

Apply information from the program to your daily living!
Can CHIP Make A Difference in your Workplace?

Absolutely!

Corporate CHIP Case Studies...
In 2014 LMHS Performed a CHIP Financial ROI Study

- Total investment for 30 employees in study = $37,800
- LMHS compared 12 months of claims on participating employees both before and after CHIP intervention.
- Total health expenditure savings realized = $70,155

Calculated ROI = 1.85
(for every $1.00 spent they were able to save $1.85)
Lee County, FL Schools

- 13,000 total employees / 10,000 benefit eligible
- $67 million dollars a year in medical and Rx claims
- Self-insured. Built an aggressive wellness initiative including the CHIP program
- No increase to healthcare premiums for two consecutive years.
- Used CHIP for high-risk employees as their lifestyle change program
- Attributed over $100,000 in savings to CHIP
Lee County Schools is the recipient of the Work-Life 2016 Seal of Distinction Award for creating positive work environments. Director of Insurance and Benefits for the School District, Bonnie McFarland attributes new wellness initiatives like CHIP as reasons for their world class distinction.

The press release continues:

“CHIP is an innovative program scientifically proven to reverse diabetes and heart disease....in its first year of implementation the District saved over $100,000 in healthcare costs.”
Ohio University Employees and CHIP

Results in 36 Days

<table>
<thead>
<tr>
<th>Test</th>
<th>Jan 2018</th>
<th>March 2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol</td>
<td>188</td>
<td>164</td>
<td>-12.8%</td>
</tr>
<tr>
<td>LDL Cholesterol</td>
<td>105</td>
<td>91</td>
<td>-12.9%</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>155</td>
<td>125</td>
<td>-19.3%</td>
</tr>
<tr>
<td>Weight (pounds)</td>
<td>190.8</td>
<td>180.1</td>
<td>-10.7 lbs</td>
</tr>
</tbody>
</table>
CHIP Lifestyle Program at Vanderbilt University Demonstrates an Early ROI for a Diabetic Cohort in a Workplace Setting

<table>
<thead>
<tr>
<th></th>
<th>Average Cost &amp; Utilization (Plan-paid Medical &amp; Rx and Copays)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q1 2010</td>
<td>Q1 2011</td>
<td>Q2 2010</td>
<td>Q2 2011</td>
</tr>
<tr>
<td><strong>CHIP Participants</strong></td>
<td></td>
<td>$2,040</td>
<td>$1,328</td>
<td>$1,733</td>
<td>$1,212</td>
</tr>
<tr>
<td>Type 2 VHP Diabetics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ages 35 to 65)</td>
<td></td>
<td>$2,040</td>
<td>$1,328</td>
<td>$1,733</td>
<td>$1,212</td>
</tr>
<tr>
<td>% Change</td>
<td></td>
<td>-34.9%</td>
<td>-30.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-CHIP</strong></td>
<td></td>
<td>$2,258</td>
<td>$2,415</td>
<td>$2,440</td>
<td>$2,876</td>
</tr>
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<td>% Change</td>
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<td>6.9%</td>
<td>17.9%</td>
<td></td>
<td></td>
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In total, the approximate health care cost (medical + prescription drug) savings for this six-month time frame exceeded $65,000.

www.namcp.org – Vol.15, No.4 – Journal of Managed Care Medicine
Cummins Inc. ran a successful CHIP pilot in 2014. Over 2,500 employees have now participated in CHIP.

“We’ve had employees come off their meds in just a few weeks. (CHIP) classes have been sell-outs over the last year with waiting lists.”

-- Dexter Shurney, MD
Cummins Health Plan Medical Director
CHIP participants RX costs went down by an average of $239.12
(Non-CHIP employees RX costs went up by an average of $43.92)

In addition, CHIP participants’ medical claims paid by the health plan went down by average of $458.28!

What would be the cost of doing nothing??
“CHIP gave me hope that I could control my life again. Renewed my belief in being healthy by choice!” – John Davis

12 months after CHIP

- Eliminated the need for 3 meds
- Went from 8.9 to 5.7
- Lost 30 pounds
CHIP Success Stories

“If you want a program that has proven results to lengthen your life and help you become the very best version of yourself, try CHIP!” — Alyssa Hawkins

12 months after CHIP

• 40% reduction in total cholesterol

• Lost 7 inches off her waist and 40 pounds
Why CHIP for Your Organization?

Help Your Employees:

• Understand the relationship between lifestyle and health
• Recognize and understand the value of changing unhealthy behaviors
• Stabilize and/or reduce out-of-pocket health care costs
• **Improve their health and productivity (and reduce health plan costs!)**
More Information:

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