

Depression & Impact on Work



Consensus Development Conference on
Depression in Adults
October 15, 2008



Depression at Work

Employer issues related to depression

- Disability and return to work
- Absence
- Drug costs
- Inability to perform work functions
- Employee's ability to contribute to organization's business effectiveness through leadership and client service

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Depression at Work

Data connecting depression, health & work

Source of Data

- Global Wellness Checkpoint® Benchmark 2007 database
- Self-reported data collected from 135,736 employees from over 40 employer groups who have completed the Wellness Checkpoint® health risk assessment
- 32,430 completed PHQ-9 Depression screening . Of these:
 - 51% (16,674) are Canadian
 - 47% (15,216) also completed the Work Limitations Questionnaire

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Benchmark 2007

PHQ-9 depression data

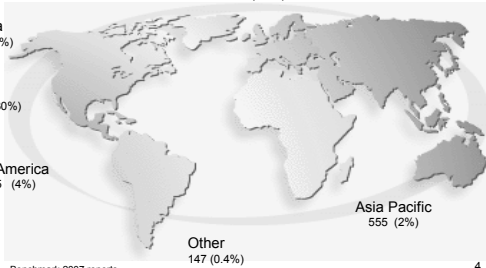
n= 32,430

Europe
3,989 (12%)

Canada
16,673 (51%)

US
9,763 (30%)

Latin America
1,285 (4%)



Benchmark 2007 reports

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PHQ-9 depression screening data correlated with



Age & gender

Known heart disease & diabetes

Pre-disease predictors
for heart disease & diabetes

Lifestyle Risks
& Readiness to change

Productivity :Loss
through presenteeism & absenteeism

Job demands

Work/life issues

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Age & Gender

comparison by PHQ-9 Depression rating

PHQ-9 Depression rating	% of sample	Avg. Age	% Female
Normal range, no depression symptoms	33.6%	44.8	43%
Normal range, some symptoms	40.7%	42.3	53%
Mild depression range	16.8%	40.4	60%
Moderate depression range	5.2%	39.9	66%
Moderately severe range	2.3%	38.4	68%
Severe depression range	1.5%	38.8	71%

The higher the level of depression:

- the lower the age
- the higher the prevalence of females

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History of depression

comparison by PHQ-9 Depression rating

PHQ-9 Depression rating	% who do report a prior history of depression
Normal range, no depression symptoms	6%
Normal range, some symptoms	16%
Mild depression range	36%
Moderate depression range	53%
Moderately severe range	61%
Severe depression range	72%

A significant percentage of employees suffering from symptoms associated with depression have not been diagnosed or treated for depression.

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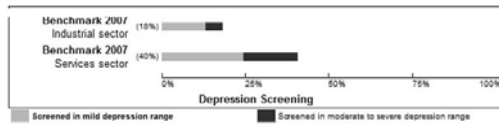
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Age & Gender

industry sector benchmarks

	Avg age	% female
Industrial sector benchmark	41.4	36%
Services sector benchmark	37.9	64%



Age and gender are the significant factors in the prevalence of depression in an employee population.

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Known Heart Disease & Diabetes

comparison by PHQ-9 Depression rating

PHQ-9 Depression rating	Heart Disease	Diabetes
Normal range, no depression symptoms	2.4%	3.7%
Normal range, some symptoms	2.6%	3.6%
Mild depression range	3.5%	4.0%
Moderate depression range	4.1%	5.1%
Moderately severe range	4.1%	3.8%
Severe depression range	6.2%	6.0%

The higher the severity of depression symptoms, the greater the prevalence of known heart disease and diabetes.

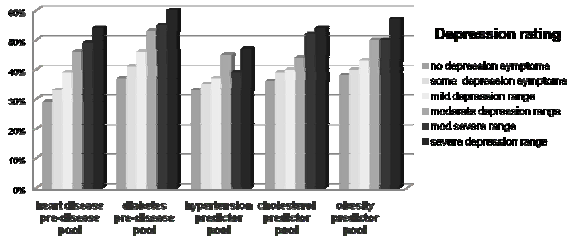
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Pre-Disease Predictor Pools

comparison by PHQ-9 Depression rating



The higher the severity of depression symptoms, the greater the prevalence of pre-disease predictors...

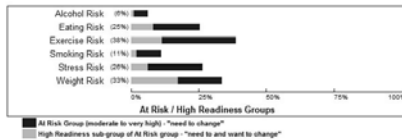
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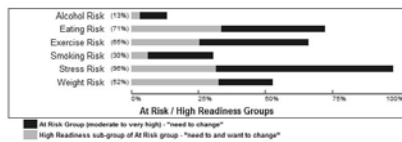


Lifestyle Risk & Readiness to Change

Individuals with no depression symptom



Individuals screened in severe depression range



The higher the severity of depression symptoms, the greater the prevalence of lifestyle risk factors AND readiness to change.

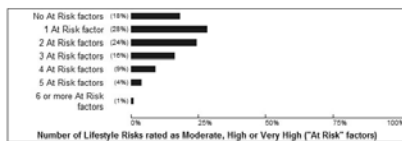
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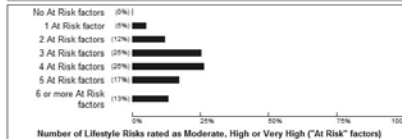


Multiple Lifestyle risk factors

Individuals with no depression symptom



Individuals screened in severe depression range



The higher the severity of depression symptoms, the greater the number of lifestyle risk factors...

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Work Limitations Questionnaire Measuring Loss of Productivity

Work Limitations Questionnaire

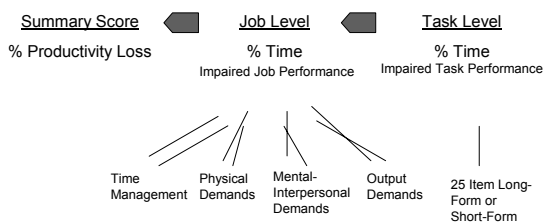
- developed by Debra Lerner PhD and Ben Amick PhD, The Health Institute, Tufts University
- validated instrument considered the "gold standard" for measuring productivity loss
- **Productivity Loss - Presenteeism**
 - Measured as limitation in % output capacity expressed in time equivalence
 - 4 sub-scales measure limitations in performing normal job demands
 - Mental Interpersonal demands
 - Time Management demands
 - Output demands
 - Physical demands
- **Time Loss Absenteeism**



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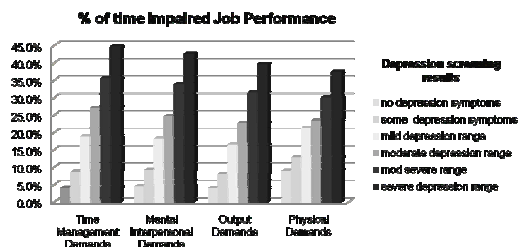
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WLQ Levels of Data At-Work Burden of Health Problems



WLQ developed by Debra Lerner PhD and Ben Amick PhD
The Health Institute, Tufts Medical Center

Limitations in meeting job demands comparison by PHQ-9 Depression rating

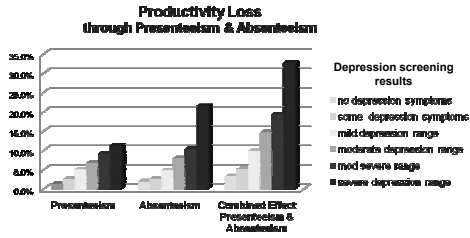


*The higher the severity of depression symptoms,
the greater the limitation on normal job functions..*

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Productivity Loss comparison by PHQ-9 Depression rating

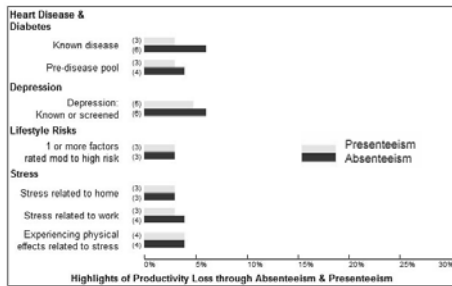


The higher the severity of depression symptoms, the greater the productivity loss..

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Productivity Loss presenteeism & absenteeism



Employees suffering from depression report the greatest the productivity loss from presenteeism & absenteeism.

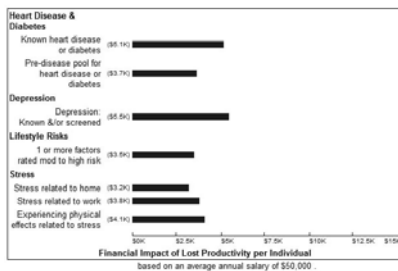
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Financial Impact of Productivity Loss per individual



- Combined effect of presenteeism & absenteeism
- Average salary cost (assumption: \$50,000)



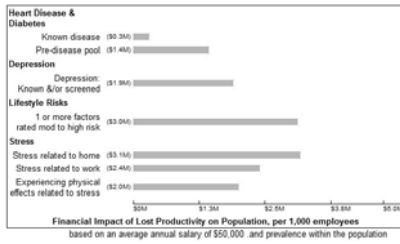
The financial impact per employees suffering from depression is equal to that of employees with known heart disease or diabetes.

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Financial Impact of Productivity Loss per 1,000 population

- Financial impact per individual
- Prevalence per 1,000 employee population



When prevalence is taken into consideration, stress, lifestyle and depression represent the greatest cost associated with lost productivity.

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Zeroing in on Productivity Loss

Harris Allen PhD subjected the global Wellness Checkpoint® Benchmark 2007 data to in-depth statistical analysis in a case study to answer the following questions:

- Is individual health all that matters and can be measured and managed when assessing productivity loss?
- Are there factors other than individual health whose effective management – either in combination with health or above and beyond it – can improve the chances of effectively tackling the phenomenon?

In his articles "Zeroing in on Productivity Loss" and "Using routinely collected data to augment the management of health and productivity" ⁽¹⁾, Harris reports the significance of the effect of a set of 21 potential predictors on productivity loss.

Link to	Presenteeism	Absenteeism
Substantial significance	Depression	
Moderate significance	Job Stress & Satisfaction Personal Life Impact	Job Stress & Satisfaction Personal Life Impact
Modest significance	Predisposition to stress Financial concerns	Depression, Major diseases, General Health Financial concerns

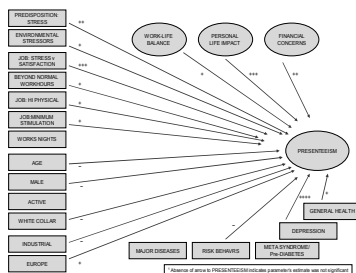
(1) "Using routinely collected data to augment the management of health and productivity" will be published in the June 2008 issue of the Journal of Occupational and Environmental Medicine JOEM.
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Predicting Productivity Loss due to Presenteeism



Link to	Presenteeism
Substantial significance	Depression
Moderate significance	Job Stress & Satisfaction Personal Life Impact
Modest significance	Predisposition to stress Financial concerns



Source: Harris Allen PhD
"Zeroing in on Productivity Loss"

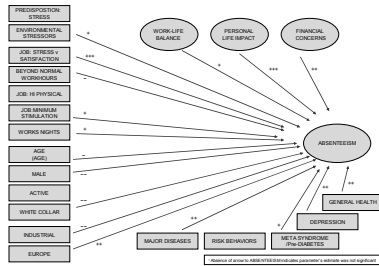
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Predicting Productivity Loss due to Absenteeism

Link to	Absenteeism
Substantial significance	
Moderate significance	Job Stress & Satisfaction Personal Life Impact
Modest significance	Depression, Major diseases, General Health Financial concerns



Source: Harris Allen PhD
"Zeroing in on Productivity Loss"

The relative magnitude and direction of each effect
++++ or - - - indicates substantial significance
+++ or - - - indicates moderate significance
++ or - - - indicates modest significance
+ or - indicates low significance
No arrows indicate non-significance

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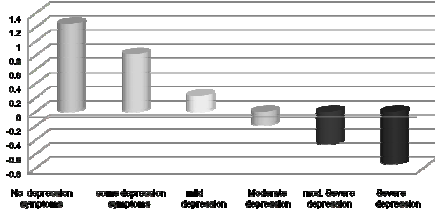


Further analysis is currently underway
to understand relationship of factors to
treatment-indicated depression



Business Health Culture Index Indicator of Business Impact

- Index developed by Martin Shain of CAMH
- Organizational measure of Control, Reward, Effort & Demand



The higher the severity of depression symptoms,
the lower the Stress Satisfaction index – a predictor of negative
organizational impact.

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Applying the WLQ to Productivity Loss Management for employees suffering from depression

Presenting work conducted by
Debra Lerner PhD
Author of WLQ

Why Start with Depression?

- Common, chronic ailment
- Documented impact on employment
- Strong evidence base documenting effects of detection, diagnosis and treatment on symptoms
- Some evidence that effectively treating symptoms benefits employment
- Many people with depression do not get the care they need

Slide courtesy of Debra Lerner, PhD

The Work and Health Initiative (WHI) Debra Lerner PhD

An EAP phone-based program will attempt to improve recovery and
reduce productivity loss through three mechanisms:

- medical care coordination
- coaching in cognitive-behavioral self-help techniques
- guided work modification

Slide courtesy of Debra Lerner, PhD

16-Week WHI Intervention

Primary care coordination

- Education about effective care
- Referral to PCP
- Monthly feedback to PCP on adherence, response, side effects

Cognitive behavioral therapy

- Provided by EAP counselor
- 8 telephone-based sessions
- workbook-based exercises

Work modification

- Assess work impairment
- Identify modification opportunities
- Implement & evaluate changes

Monthly reassessment of symptoms & functioning

- #### Primary outcomes:
- Decreased productivity loss
 - Improved job performance
 - Improved depressive symptoms

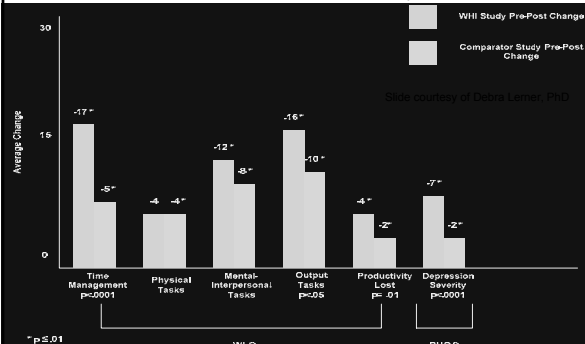
Slide courtesy of Debra Lerner, PhD
Work and Health Initiative (WHI)

Two Experiments conducted by Debra Lerner PhD

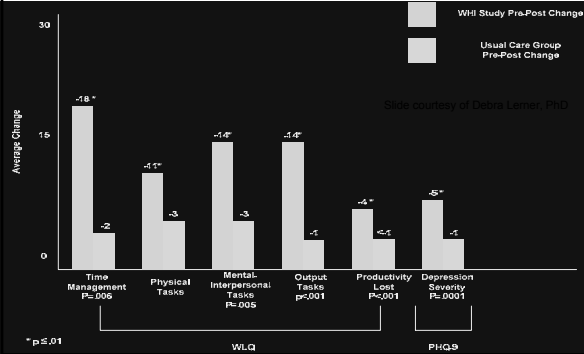
- Lockheed Martin Aeronautics
(Pamela Thomas, MD) and NEAS, Inc.
- State of Maine Government
(Mr. Frank Johnson and Mr. William McPeck) and Health Resources, Inc.

Slide courtesy of Debra Lerner, PhD

Means and Mean Change Scores From Baseline to 6-Month Follow-Up for WHI and NIMH Sample Lockheed Martin Aeronautics Study



Means and Mean Change Scores From Baseline to Four-Month Follow-Up WHI vs. Usual Care Maine State Government Study





Opportunity for collaboration

- Mental Health Commission of Canada
- Canadian employers with established measurement framework
 - Assessing need
 - Measuring broad scope of factors co-present & correlated to depression
 - Measuring change over time
 - Data available to triage employees to appropriate resources based on screening profile
- Canadian EAP providers are already working with this data for health & productivity measurement
- Established collaboration with leading researchers in establishing intervention protocols for use by resources already in place in many Canadian employer companies

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