





Leveraging Technology for Optimum Results

Los Angeles County Overview



- Over 100,000 employees
 - ✓ This is 1% of the population of the County
- Over 4,700 square miles of area
 - √ 70 miles of coastal land
 - ✓ Mountains, valleys, forests, lakes, rivers, deserts
- More residents than in 42 states
 - ✓ Over 10,000,000 residents
- Budget approaching \$30,000,000,000
 - ✓ Law enforcement, healthcare, fire protection, social services
- Cost of risk approaching \$600,000,000
 - ✓ 25% liability-related; 75% workers' compensation/salary continuation

The challenges are never-ending.





Risk Management Concerns

Tradition of Service

- Law enforcement
 - ✓ Patrol, jails
- Healthcare
 - ✓ Hospitals and clinics, public health, mental health
- Maintaining roads and infrastructure
 - ✓ Roads, storm channels, dams
- Providing recreational services
 - ✓ Beaches, parks, libraries, museums, theaters







Since 1850



All rights reserved



Risk Management Concerns



- Centralized and decentralized functions
 - ✓ Policy-making departments
 - ✓ Department-level implementation
- Ensuring consistency of approach
 - ✓ Distributed staff
 - √ Varying levels of risk management knowledge or expertise
- Obtaining buy-in at all levels
 - ✓ Board of Supervisors
 - ✓ Department Executives
 - ✓ Line staff



Approach to Risk Management



- Identify trends and patterns relating to safety and risk management
 - ✓ Study and analyze all liability and workers' compensation data (at least weekly)
- Educate stakeholders about trends and solutions
 - ✓ Annual report
 - ✓ Risk Management Plans
 - ✓ Easy-to-view dashboards
- Provide tools to improve conditions or minimize risk
 - ✓ Educational material
 - √ Training sessions
- Monitor results on a continuous basis



Accomplishing Results by Embracing Technology



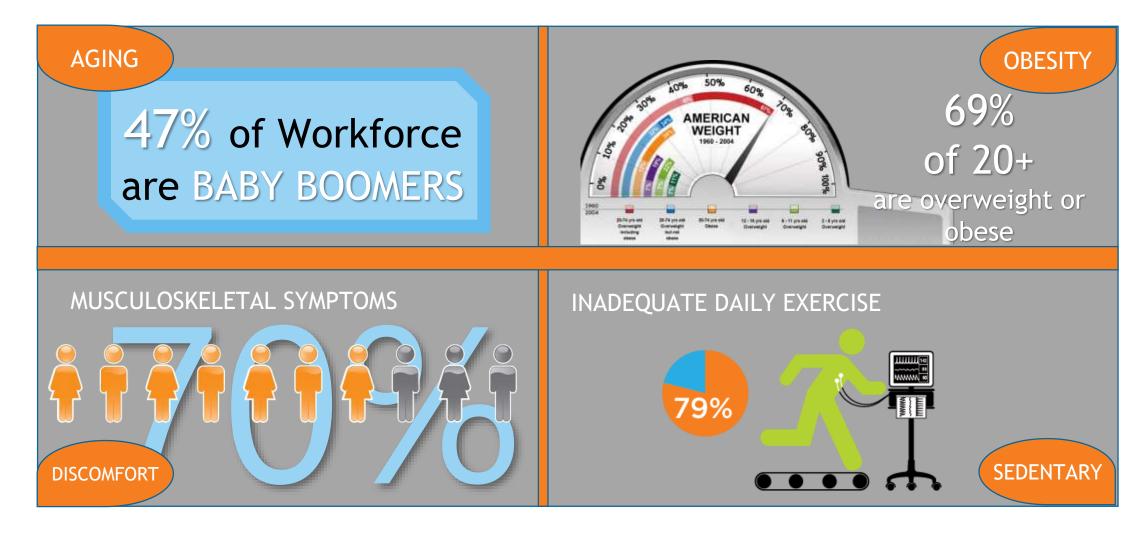
- Enterprise Risk Information Center dashboard
 - ✓ Workers' compensation data
 - ✓ Liability data by different exposures (law, employment, vehicle, medical malpractice)
 - ✓ Trend graphs and charts
 - ✓ Drill-down detail reports
- Obtain data and use predictive analytics
 - ✓ IBM SPSS Modeler Gold
- Make everything digital
 - √ Web-based training
 - ✓ Resource and model documents on the internet
 - ✓ App development
 - ✓ Specific issue technological tools such as the ergonomic self-assessment and training program from BRIOTIX



Megatrends: We are in this together













Traditional Ergonomics is **BROKEN**

Its catastrophe and compliance centric.

There is no consistent methodology.

It ignores workforce traits and trends.

There is no automation.

There are no analytics.

There is no ROI detail.

It takes too much time.

It costs too much money.





"Technology is nothing. What's important is that you have faith in people... if you give them tools, they'll do wonderful things with them."

- Steve Jobs

What can software do for you?







Measuring Your Unknown Factor



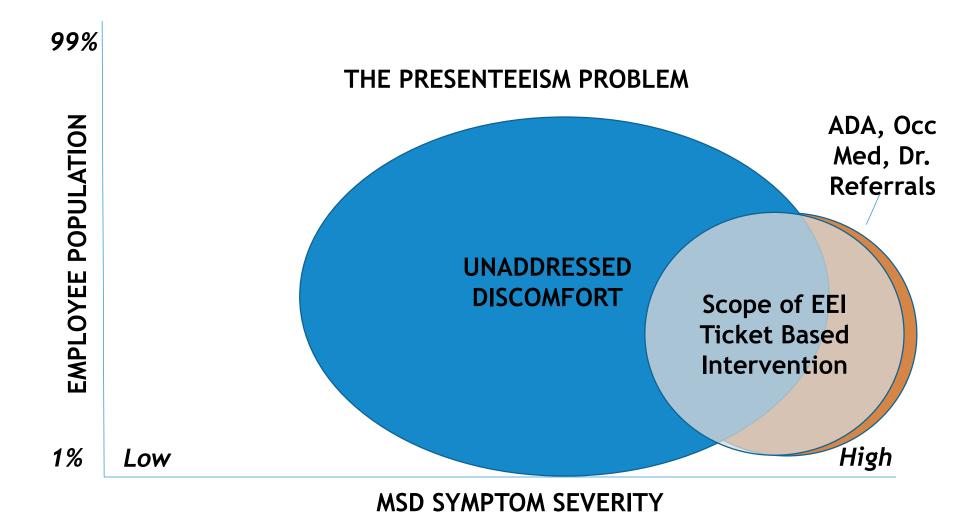
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L - 5. How often do you experience disco Iny unpleasant feeling such as soreness, Hands, Wrists, Forearms or Elbows Neck, Shoulders, or Upper Back	muscle fatigue or Daily	eye strain.	Monthly	Never	Ware and the same
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The state of the s	muscle fatigue or Daily	eye strain.	Monthly	Never	Ware and the same
- 5. How often do you experience discorny unpleasant feeling such as soreness, Hands, Wrists, Forearms or Elbows Neck, Shoulders, or Upper Back Lower Back Legs or Feet	muscle fatigue or Daily O O	weekly O O O	Monthly O O O	Never	Section 1



Case Study



80% of participating employees reported high frequency / high intensity discomfort.





OPPORTUNITY COST OF PRESENTEEISM IS SIGNIFICANT Example ROI Analysis

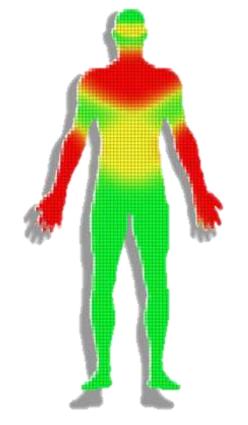
# of Employees Reporting Persistent Work Related Pain	1000
Lost Productive Hours Per Week*	5.5

^{*}Stewart, et. al. Lost Productive Time and Cost Due to Common Pain Conditions in the US Workforce

Average Employee Salary	\$75,000
Overhead Costs	\$30,000
Average Days Worked Per Year	220
Average Hours Worked Per Day	8
Employee Cost Per Hour	\$60

Total Annual Opportunity Cost of Lost Productivity from Pain Conditions

\$17,062,500



Don't Panic



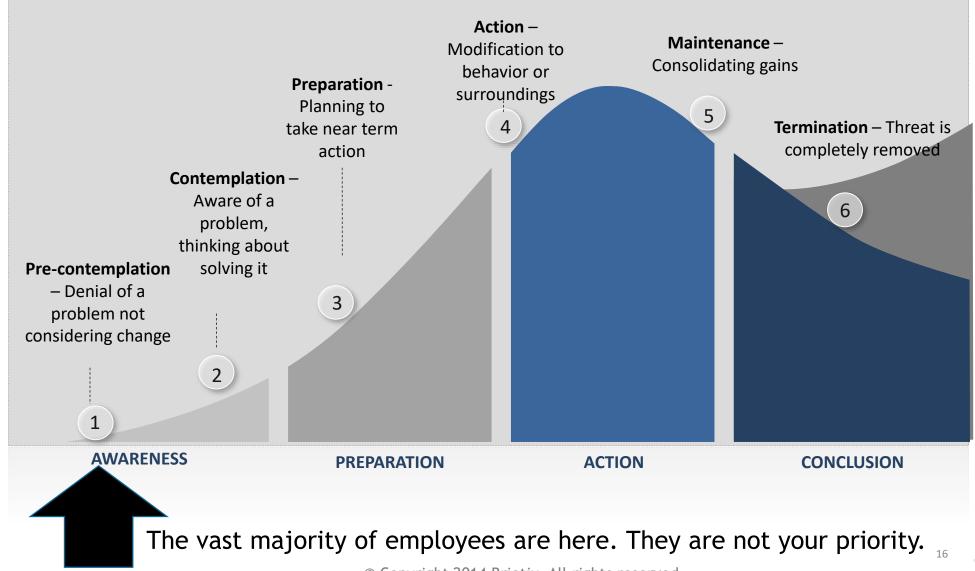
- Awareness does not drive cost.
 - ✓ You are already experiencing the cost & risk today.
- Awareness does not require action.
 - ✓ Self-reports of discomfort are not cause for claims.
- Awareness does not drive budget.
 - ✓ In fact, if often enables you to achieve more with less.

However, successful prevention strategies do require awareness to identify who to help with your limited resources. And celebrating your success requires a quantified baseline.



Behavior Change Paradigm







Build a Self-Screening Model



An effective prevention program should drive higher complexity / higher cost services to those best positioned to benefit from the intervention.

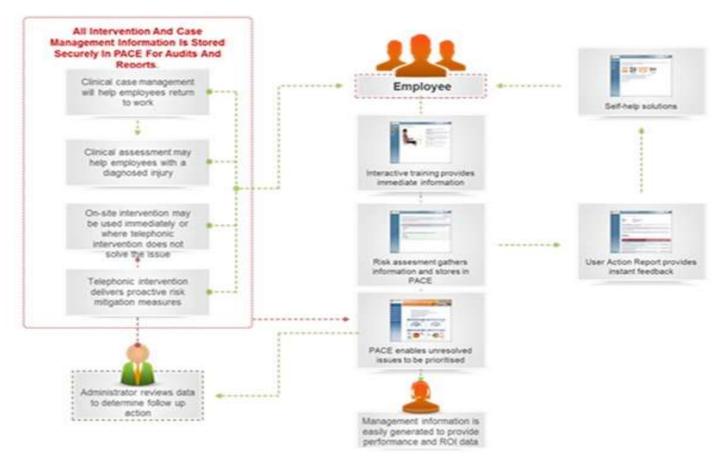




You Need a 'Smart' Process



Data-driven risk-adjusted protocols, coupled with process automation, and best practice expertise are the keys to success.





Embrace an Opt-In Strategy



Cultivate and embrace the 'Ikea' effect.

SELF-SERVICE

Participation in the development of an outcome results in affinity, a sense of ownership, and a perception of higher value on the result.

'OPT-IN' ESCALATING ACCESS

Employees you elect to 'optin' and demonstrate conformance to self-service solutions are eligible for escalating forms of intervention.



LOCUS OF CONTROL / EASE OF ACCESS

Meaningful participation that drives employee satisfaction requires employee empowerment and access to solutions and tools that support comfort.

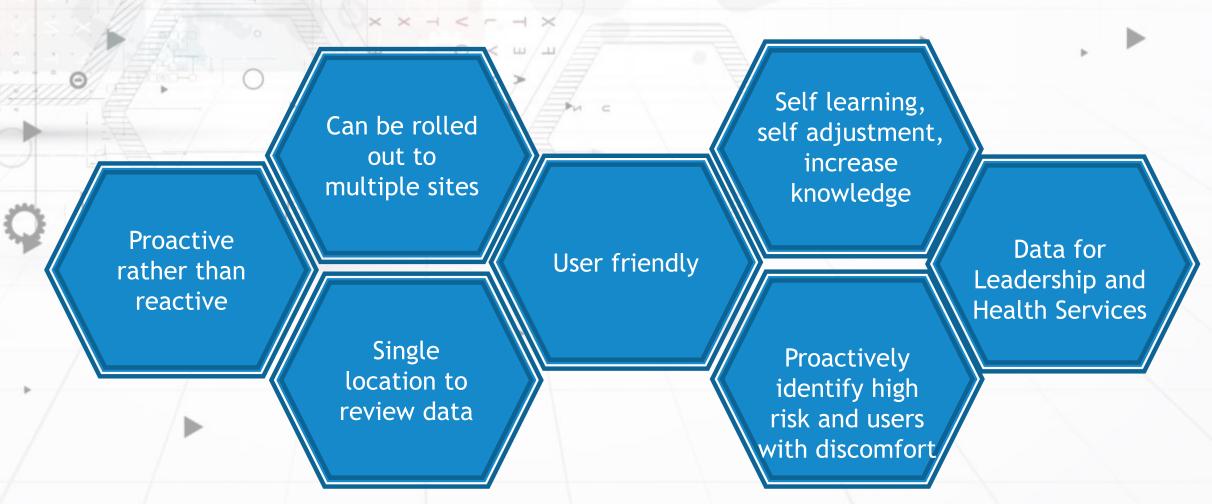
PEER & SUPERVISOR SUPPORT

A shared expectation and normalization of participation is required to transform awareness and access into ACTION.



Benefits of using online tool

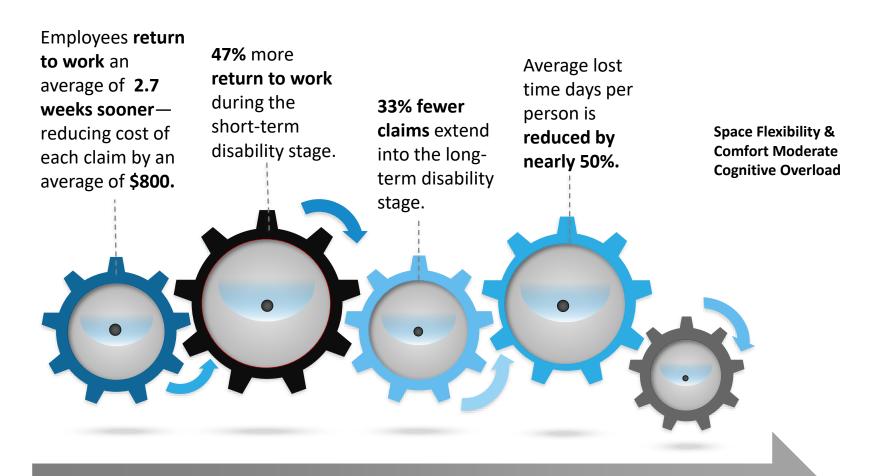






Studies Show - EEI Works





Reduction in Cost of Claims

According to studies completed by Sun Life and COHE.





Let online tools work for you...









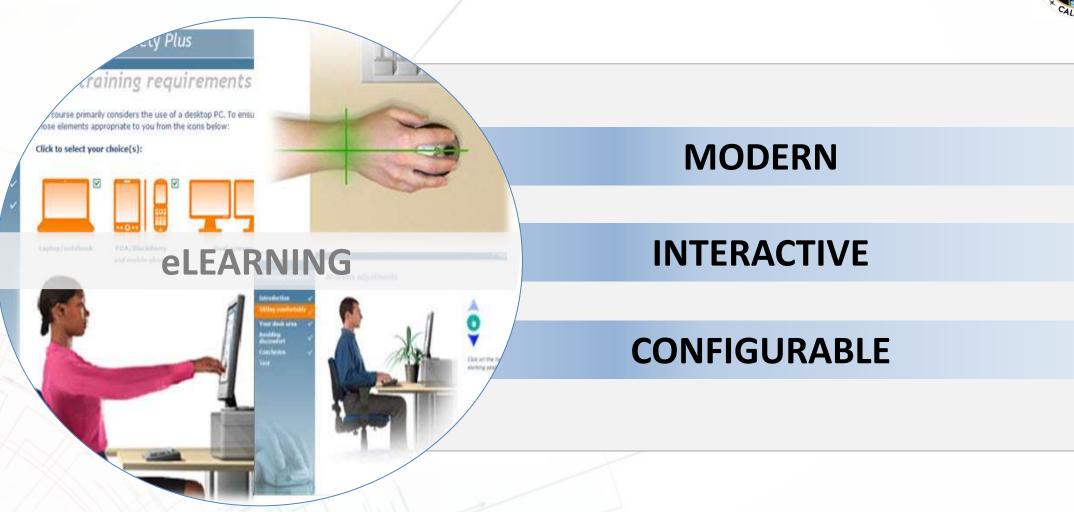




Let's Bring It Into Focus



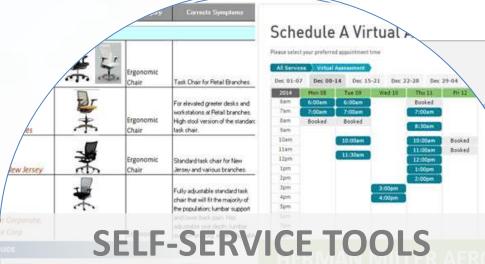




Let's start with automated training. Here's what you look for.



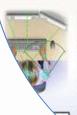




CUSTOM SOLUTIONS LIBRARY

AUTOMATED EMAILS

SCHEDULING SUPPORT



Monitor Paultion

The stanton you keep at the your from of you, Place the second months these to the princey. If you seek both mortices.

You may should be mine with the but of

situal to time will your primary

visioning area of a servine an exercise (1) dispinacion a full 2 in 4 studies below: motalists over 23 terms on his commence

CHARGAR HEIGHT While holding both sides, slide the lumbar cushion up or down to adjust the lumber

While holding both sides, slide the tumber outbion out and

Right over for a different level

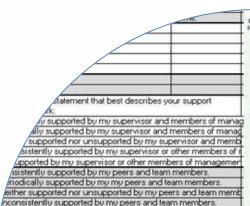
SEAT HEIGHT ADJUSTMENT Lift the lever located under the

right side of the seet pan to adjust

Notate the circular knob under the right side of the sext to sejust







18. While snated with your backlootrest?

Yes, I am postsoned like the peture shown



Yes, but my knees are higher than my high



No, I am not able to place my feet flat on the floor confortably and I do not have a footrest



PREDICTIVE RESULTS

CONDITIONAL PROGRAMMING

SCIENTIFICALLY BASED

RISK ASSESSMENT



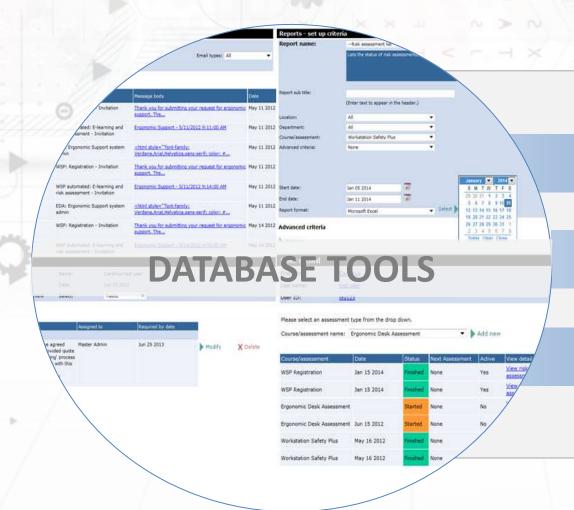


29. Please indicate the frequency with which you experience discomfort in 5

	Oally	Weekly	Monthly
Nack or Upper Back	0	0	0/
Shodder	0	0	
Ethor or Farearn	0	0.	
Hand or Vinst	0	0/	
Lower Black	0	9	
Legs or Feet	0		
Other	0		







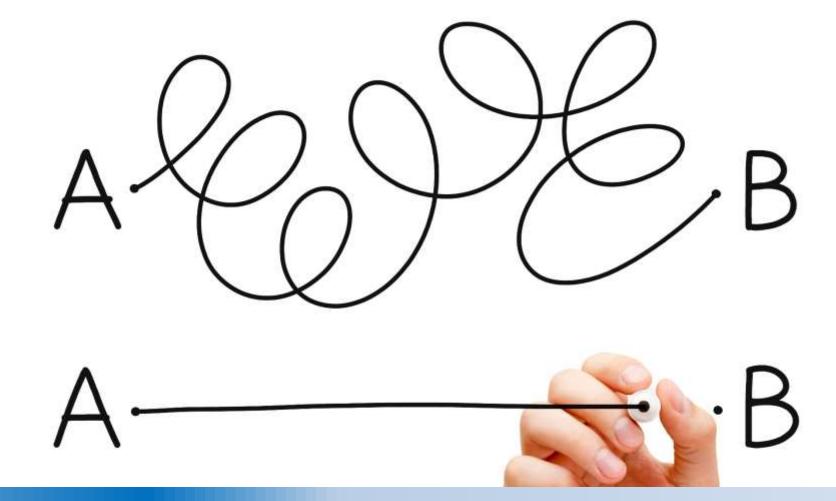
QUERY + EXPORT

SYNCHED to ORG HIERARCHY

RECORD REPOSITORY





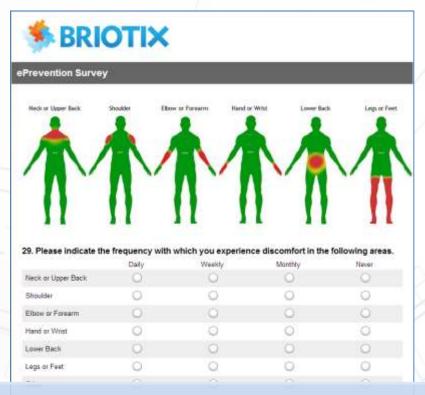


How Do You Get There?





DISCOMFORT SURVEY



QUANTIFY THE PROBLEM

Employee Attributes							
DISCOMFORT / PAIN							
Early Ergonomic Intervention							
Discomfort Frequency	Discomfort Frequency Count Rate						
Daily & Weekly 2743 82%							
Monthly & Never 589 18%							
Total	3332	100%					

Workstation Attributes

ENTERPRISE RISK						
	Risk Score	Count	Rate			
0		116	13%			
3		26	1570			
4		8				
5		1	12%			
6		115				

QUANTIFY THE ROI

One Time Set-Up Expenses	
Software Licenses & Set-up	\$47,418

Month - Pilot Expense	
oftware Investment Utilized	\$2,987
Professional Services	\$10,494
Total	\$13.481

6 Month - Pilot Benefit Estimated Cost Reduction ROI

\$296,080

22:1

STEP 1 – BUILD A CASE

Here's how you get started.



High discomfort directly translates to lost labor hours.



	United States	APAC	EMEA
Users reporting 'daily' or 'weekly' neck or upper back discomfort			
in the last 6 months	379	107	83
Lost productive hours per week*	5.5	5.5	5.5
Lost productive hours per year	108394	30602	23738

^{*}Source: Lost Productive Time and Cost Due to Common Pain Conditions in the US Workforce - Walter F. Stewart, PhD, MPH; Judith A. Ricci, ScD, MS; Elsbeth Chee, ScD; David Morganstein, MS; Richard Lipton, MD



Complete?	#	Resource	Est. Duration Activity (Business Days)		Start Date	End Date	Dependencies
			Overall Program Set-Up				
	1	Project Sponsor	Define Program Scope	7	1772014	11/7/2014	
	2	Project Sponsor	Conduct Program Kick-Off	1	1772014	11/2/2014	1
	3	Project Sponsor	Define Implementation and Engagement Plan	10	11/11/2014	11/21/2014	1
	4	Project Sponsor	Define Roles, Responsibilities and Stakeholders	2	11/13/2014	11/15/2014	1
			Data Integration				
	5	Vendor PM / Project Spor	Collect Data Requirements	5	11/15/2014	11/20/2014	4
			·				
			Software Setup				
	6	Vendor PM	Conduct Stakeholder Demo	1	11/16/2014	11/17/2014	4
	7	Vendor PM	Collect Customer Requirements	15	11/17/2014	12/2/2014	6
	8	Vendor PM	Requirements Finalized / Software in Development	30	12/2/2014	1/1/ 2015	7
	9	Vendor PM	Internal QA	2	1/1/ 2015	1/3/2015	8
	10	Project Sponsor	Stakeholder UAT	15	1/3/2015	1/18/2015	9
	11	Vendor PM	Finalize Change Requests	5	1/18/2015	1/23/2015	10
	12	Vendor PM	Obtain Stakeholder Signoff	5	1/3/2015	1/8/2015	11
		DI ANI	Software Configuration				
2 – MA	KE A	Vendor PM / Project Spo			1/1/2015	1/6/2015	
	14	i vendor Fivi	End User Training	ı ê	For ZUID	rorzulo	1 13

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Identify...
Executive Sponsor
Budget Owner
Implementation Team
Power Users
Opinion Leaders

STEP 3 – RECRUIT A TEAM





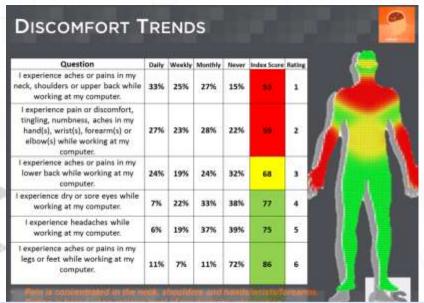
Not all stakeholders are created equal. Recruit opinion leaders to your cause.













STEP 4 – MEASURE & MARKET YOUR RESULTS



Assessment list



Assessment list								Category risks				
■ User	Categ	ory risl	KS					_	Type			
John Doe Assessment date: Nov 10 2014 Status: 00 - not viewed	4.00	6.00			0.00	0.00			Self RA			
John Doe 2 Assessment date: Nov 10 2014 Status: 00 - not viewed	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Self RA			
John Doe 3 Assessment date: Nov 10 2014 Status: 00 - not viewed	4.00	5.00	6.00	0.00	0.00	0.00	0.00	6.00	Self RA			
John Doe 4 Assessment date: Nov 10 2014 Status: 00 - not viewed	8.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	Self RA			
John Doe 5 Assessment date: Nov 10 2014 Status: 00 - not viewed	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Self RA			
John Doe 6 Assessment date: Nov 10 2014 Status: 00 - not viewed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Self RA			
John Doe Z Assessment date: Nov 10 2014 Status: 00 - not viewed	0.00	3.00	0.00	0.00	0.00	0.00	0.00	3.00	Self RA			
John Doe 8 Assessment date: Nov 10 2014 Status: 00 - not viewed	4.00	3.00	0.00	0.00	0.00	0.00	0.00	2.00	Self RA			
John Doe Assessment date: Nov 10 2014 Status: 00 - not viewed	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Self RA			

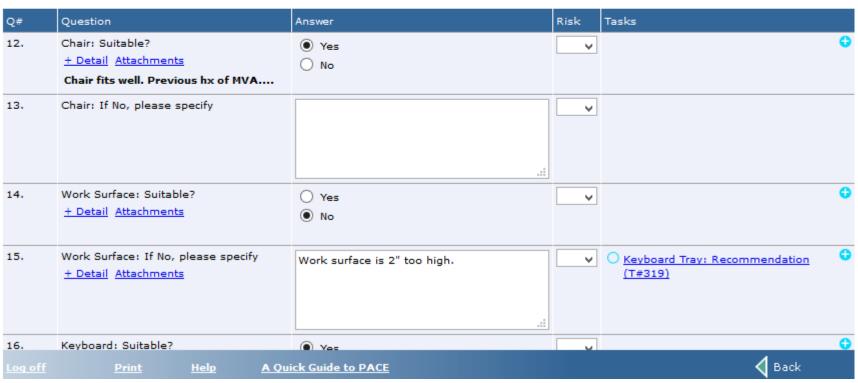


Assessment detail								
First name:	Cardinus	Telephone:			Status:	Completed 🗸		
Last name:	Test user	Date created:	Oct 20 2014		Supervisor notes:			
Location:	UCPath	Next assessment date:				.::		
Department:	Cardinus test department				Additional note	s/text responses		
Type:	Review 🗸				Email course u	<u>ser</u>		
Reports:		,	Select		Scheduled em- reporting enab	J		

Employee profile - Risk: 0

Attachments Task list Assessment notes

Questions 12-33 of 39 Previous 1 2 3 4 Next









Task code: Keyboard Tray: Recommendation ¥ Backrest: Recommendation Chair: Recommendation Corner Sleeve Recommendation Document Holder: Recommendation Footrest: Recommendation Height-Adjustable Work Surface: Recommendation Keyboard Tray: Recommendation Keyboard: Recommendation Laptop External Equipment: Recommendation Lighting: Task Light Recommendation Monitor Arm: Recommendation Monitor Stand Recommendation Mouse: Recommendation Phone Accessory: Recommendation Risk resolved: employee made adjustments Risk Resolved: onsite adjustments made Risk Resolved: Raised in error Work Practice: Healthy Work Habits Work surface layout change



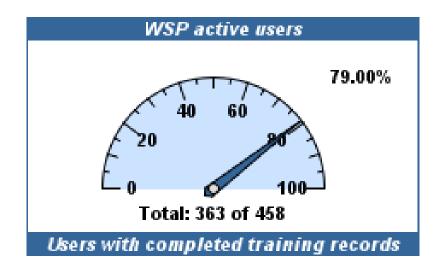
Accumulated risk report - current status





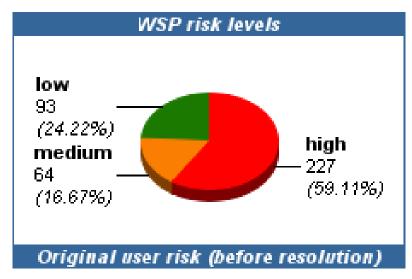
Q#:	Question:	Answer:	Risk:	Original number of issues:	Number of issues outstanding:	Total risk:
2	Neck, Shoulders, or Upper Back	Daily	10	16	12	120
1	Hands, Wrists, Forearms or Elbows	Daily	10	11	9	90
5	Eyes	Weekly	5	18	17	85
2	Neck, Shoulders, or Upper Back	Monthly	4	18	18	72
7	How often do you stand up or change your work activity for at least five minutes (e.g. take a phone call, make photocopies, speak with a coworker, etc.)?	Every Two Hours	3	29	24	72
3	Lower Back	Daily	10	10	7	70
3	Lower Back	Weekly	8	9	8	64
1	Hands, Wrists, Forearms or Elbows	Monthly	4	13	13	52
1	Hands, Wrists, Forearms or Elbows	Weekly	8	9	6	48
2	Neck, Shoulders, or Upper Back	Weekly	8	8	6	48
3	Lower Back	Monthly	4	11	11	44
5	Eyes	Daily	6	9	6	36
5	Eyes	Monthly	3	12	12	36
9	Which option best describes the nature of your computer work?	Keyboard intensive work (e.g. programming, data entry, report writing,	2	13	13	26

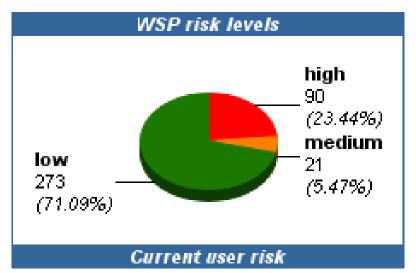






Users with risk assessments







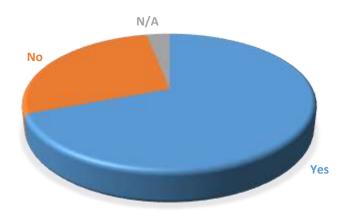
	Before		After
Count of Employees with Daily / Weekly Discomfort	19		5
Avg Employee Salary	\$ 63,578	\$	63,578
Overhead Costs	\$ 89,009	\$	89,009
Avg Days Worked Per Year	2000		2000
Avg Hours Worked Per Day	8		8
Employee Cost per Hour	\$ 43	\$	43
Total Weekly Cost Due to Lost Productivity	\$ 4,472	\$	1,177
Annual Productivity Loss (before)	\$ 232,536.54	\$	61,193.83
MSD/Ergonomic Claims Cost	\$ _	Ç	-
Technology Investment	\$ 21,000		
Services	\$ 5,000		
Equipment	\$ 35,000		
TOTAL INVESTMENT	\$ 61,000		
TOTAL COST SAVINGS	\$ 171,343		
ROI	2.8		







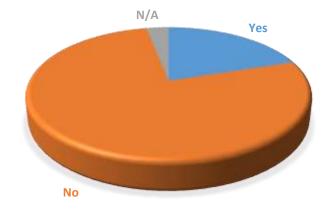
1. Prior to starting Workstation Safety Plus did you have knowledge regarding the setup of your workstation?







2. Have you had any ergonomic training (i.e. ergonomic self-assessment, LMS training, 1:1 Ergonomic Evaluation) within the last two years?

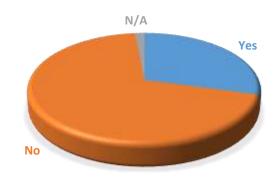


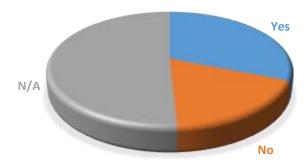




3. Have you recently experienced discomfort (backache, headache, tension) while working at your computer?

4. Did Workstation Safety Plus resolve any discomfort you might have been experiencing?





Yes	19
No	45
No N/A	1

Yes	19
Yes No N/A	11
N/A	31





5. Do you feel you have a better understanding of office ergonomics since completing Workstation **Safety Plus?**

6. Will you be more likely to adjust your posture or workstation set-up if you were to experience discomfort in the future?



59

Yes

No



No







9. How would you rate the overall effectiveness of Workstation Safety Plus?



Very Ineffective	0
Ineffective	0
Average Effectiveness	2
Effective	24
Very Effective	39

10. If asked, would you recommend Workstation Safety Plus to a colleague or co-worker?







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