



Seattle City Light



BAX-U CASE STUDY

Wellness and Ergonomics Impacting Performance

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BAX-U Case Study Start



WHY THE CASE STUDY

- To explore other ways to incorporate wellness into ergonomics
- To determine how impactful the BAX-U device could be to assist in the ergonomic corrective action process
- To enable Seattle City Light employee to have additional, proven avenues to explore to improve their wellbeing

HOW PARTICIPANTS WERE CHOSEN

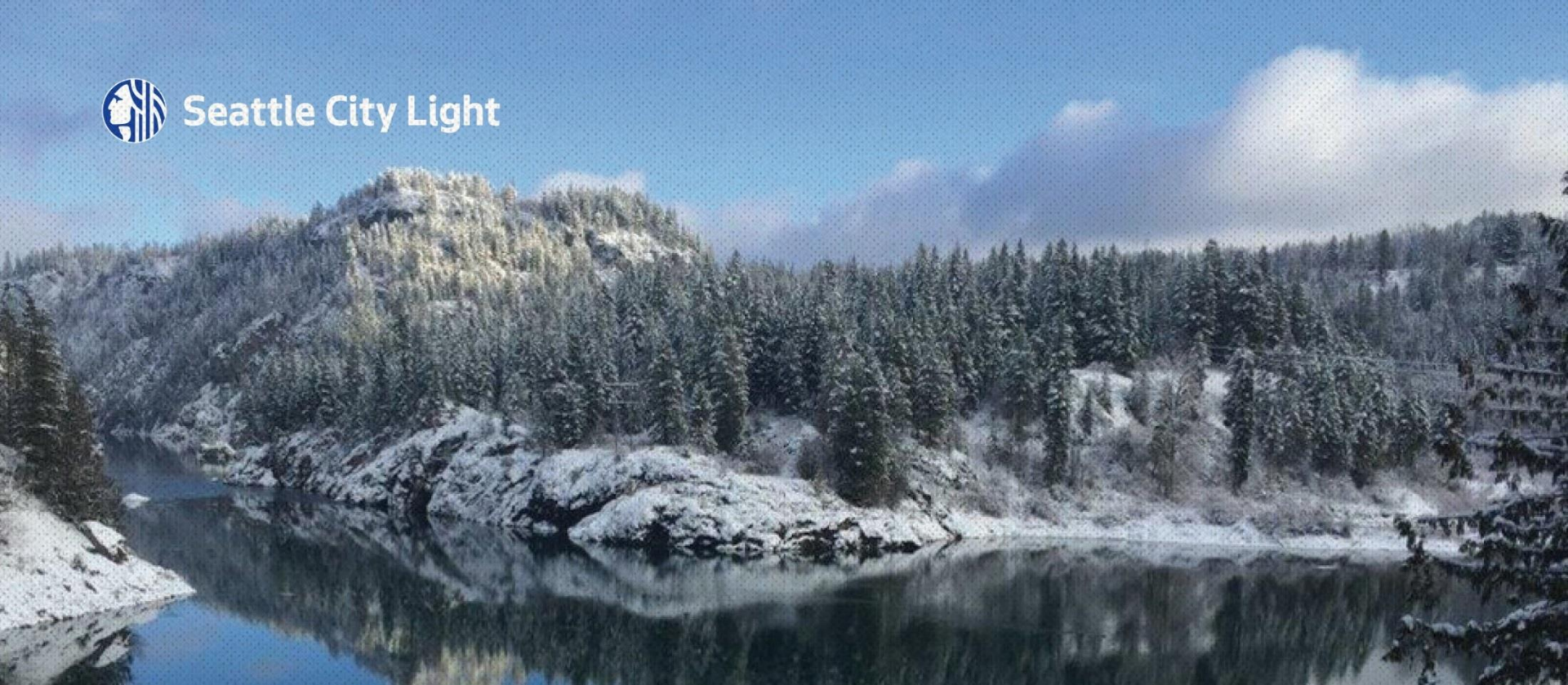
- Participants had to meet certain criteria to be eligible for the small case study (53)
 - Previous users of our online risk tool
 - Show discomfort levels in areas we felt BAX-U could impact
 - Neck
 - Shoulders
 - Back
 - Head position

HOW PARTICIPANTS WERE CHOSEN

- Participants had to also:
 - Be willing to follow the guidelines of the study
 - Complete an initial assessment
 - Wear the device as prescribed by Dr. Ghassemi, inventor of BAX-U
 - Complete an exit survey



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Initial Data and Responses

INITIAL RESPONSES

- When fitting was conducted
 - 5/53 (9%) required a different size from what they chose from the size chart
 - 49/53 (92.4%) felt an immediate difference once the fitting was completed
 - 30/53 (56.6%) felt immediate pain relief once fitted

INITIAL DATA

- 52/53 (98.1%) completed the initial online risk assessment prior to fitting
- Participants were restricted to the Seattle Municipal Tower and our nearby 901 Location
- Risk categories for the participants
 - High Risk- 20 (38%)
 - Medium Risk- 13 (24%)
 - Low Risk- 20 (38%)

INITIAL DATA

- Overall risk score for the group- 853
- Overall score for the utility currently- 300
- Lost productivity time- 41 minutes
- Lost productivity for the utility- 30
- Annual cost of lost productivity for the group- \$14,717
- Annual cost for the utility (per person)- 10,955

INITIAL RESPONSES

- All participants had some form of elevated discomfort that the BAX-U was designed to help relieve
- As the fittings were being conducted
 - 23 additional employees wanted to know about the study
 - A list was being taken to ensure follow up with those employees



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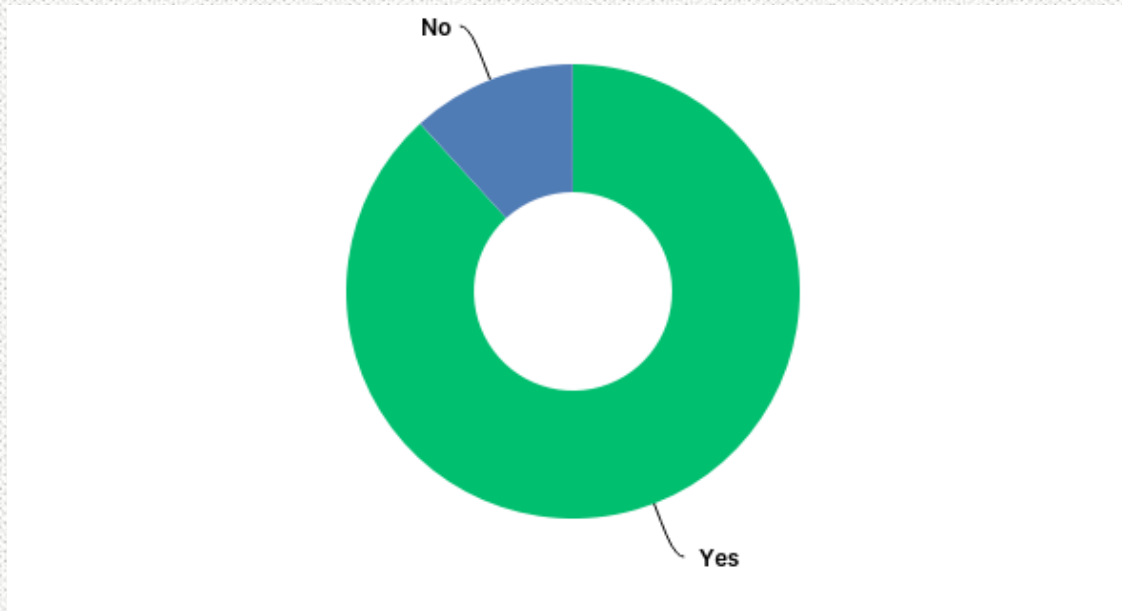
MID-STUDY QUESTIONNAIRE



OVERVIEW

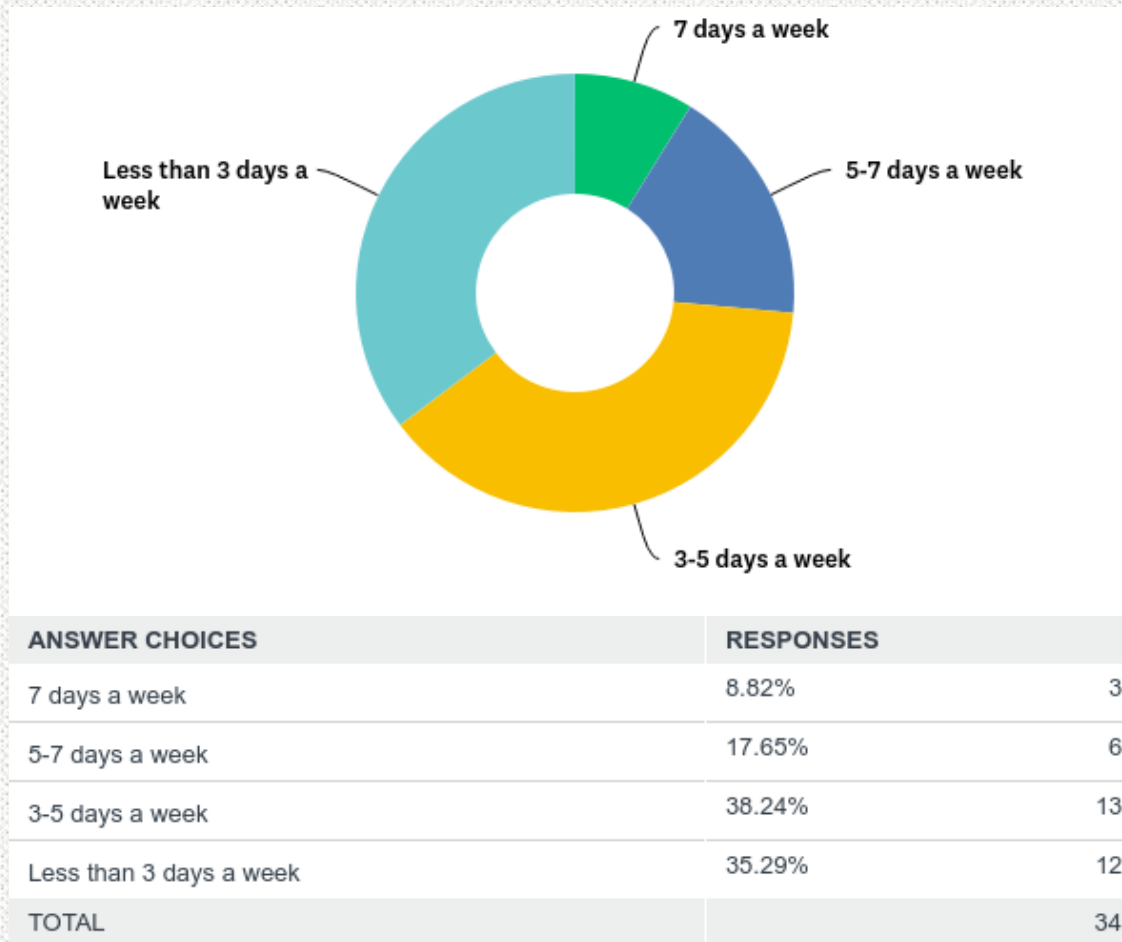
- Survey period: May 14-June 7, 2018
- Total responses: 34

Q1: DID YOU FEEL AN IMMEDIATE CHANGE IN YOUR POSTURE WITH THE DEVICE?

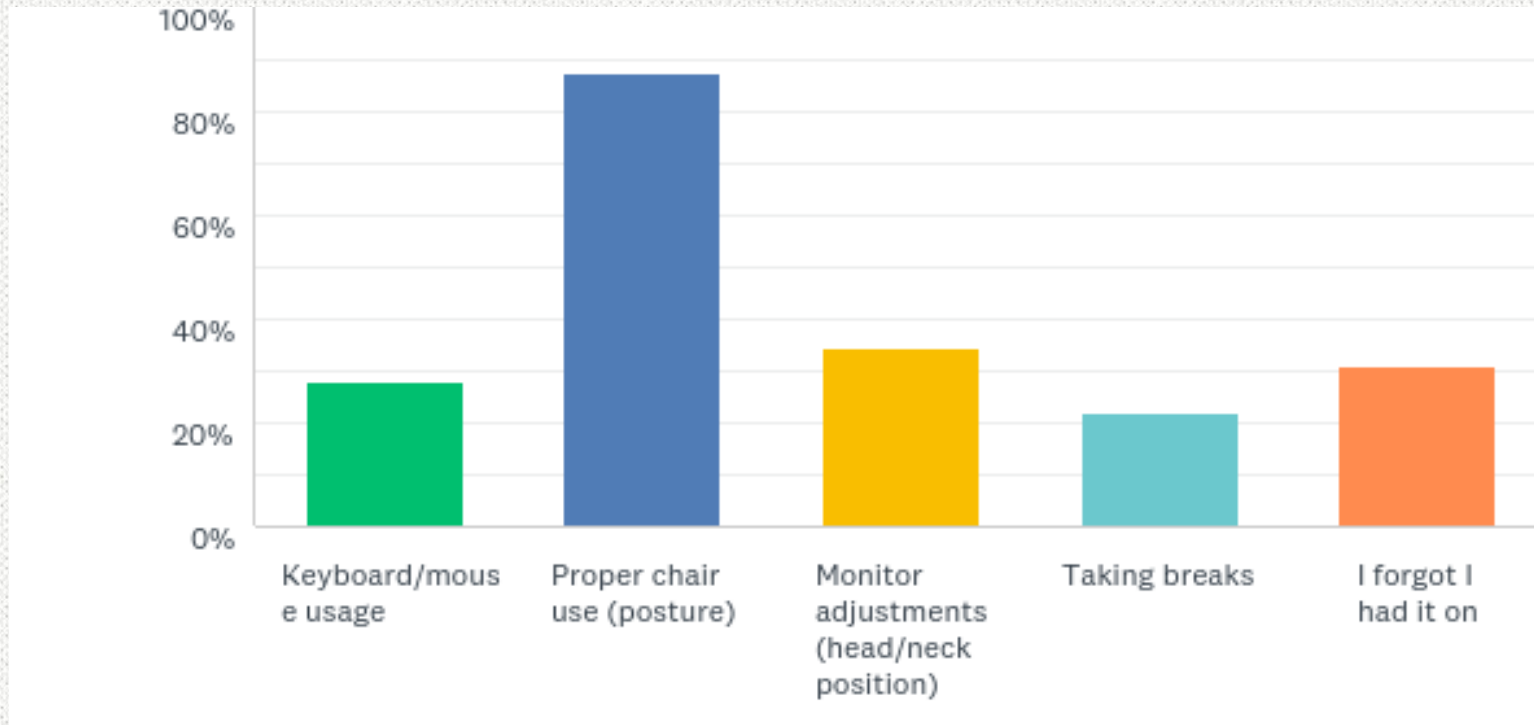


ANSWER CHOICES	RESPONSES	
Yes	88.24%	30
No	11.76%	4
TOTAL		34

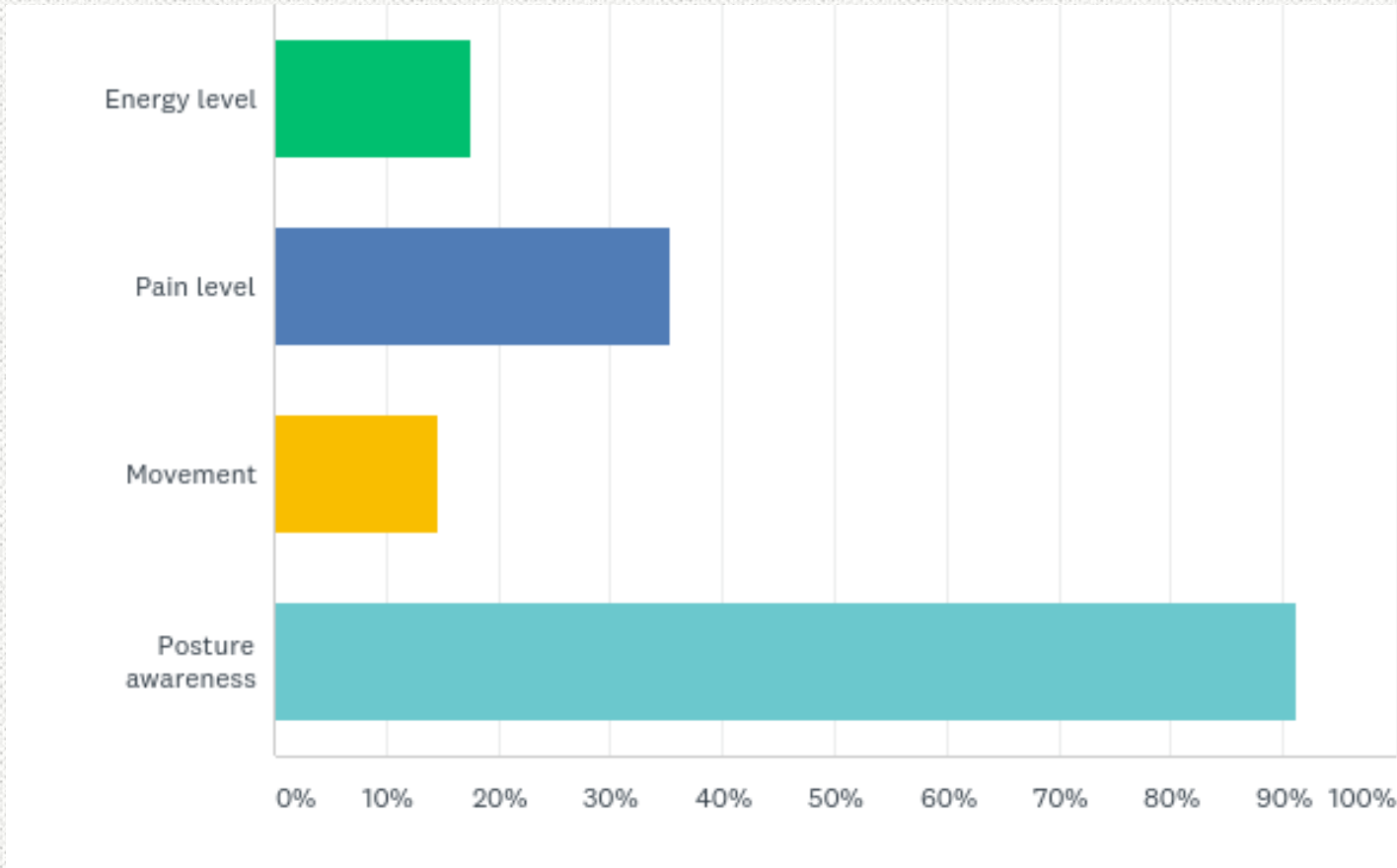
Q2: HOW OFTEN HAVE YOU BEEN WEARING THE DEVICE



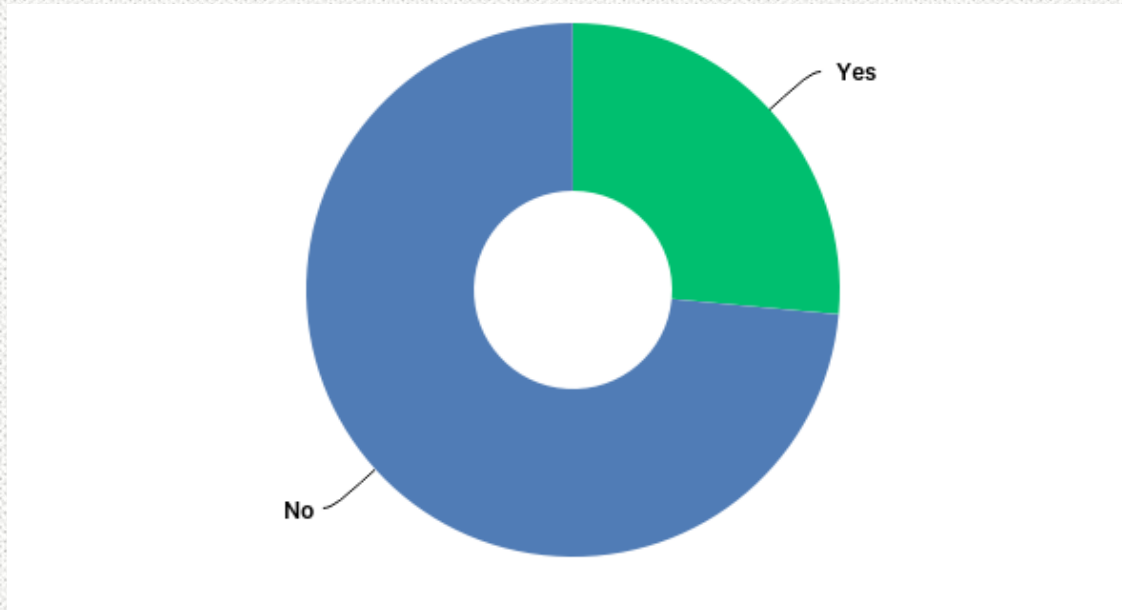
Q3: HAS WEARING THE BAX-U DEVICE MADE YOU MORE AWARE OF BETTER WORK ERGONOMICS?



Q4: WHICH OF THESE ARE MOST AFFECTED WHEN WEARING BAX-U

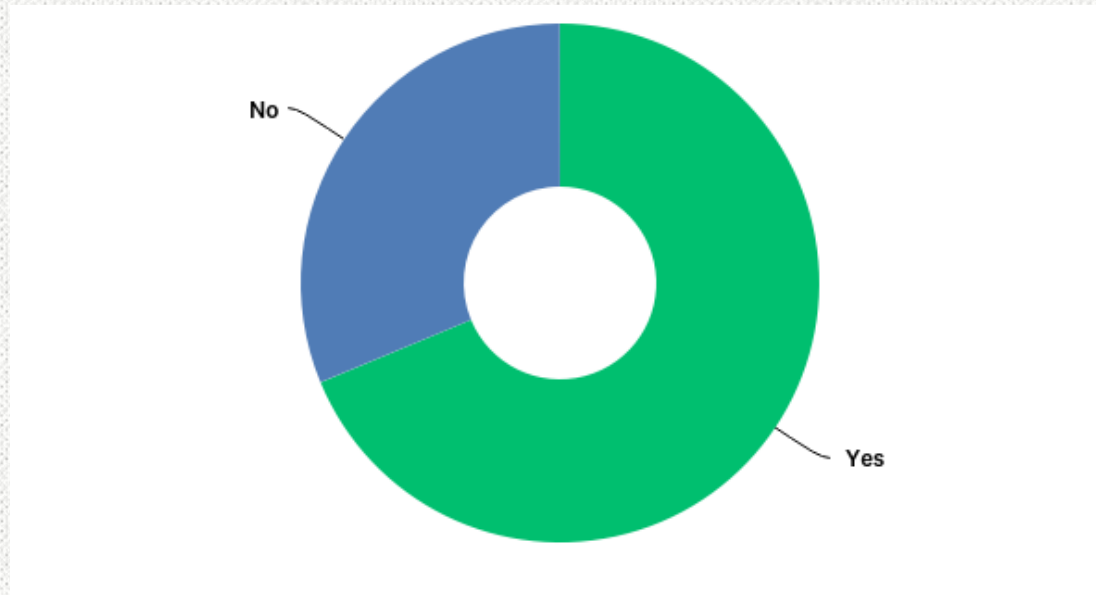


Q5: HAVE YOU WORN THE BAX-U WHILE EXERCISING?



ANSWER CHOICES	RESPONSES	
Yes	26.47%	9
No	73.53%	25
TOTAL		34

Q6: WOULD YOU RECOMMEND BAX-U TO SOMEONE YOU KNOW?



ANSWER CHOICES	RESPONSES	
Yes	68.75%	22
No	31.25%	10
TOTAL		32



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BAX-U Exit Results



EXIT ASSESSMENT RESULTS

- Risk categories for the participants
 - High Risk- 10 (18.8%)
 - Medium Risk- 13 (24.4%)
 - Low Risk- 30 (56.8%)

CONCLUSIONS TO DATE

- Case Study with Think Healthy using the BAX-U posture system
 - Using the device for 3 months data showed
 - 63% improvement in overall discomfort levels
 - 75% improvement in neck and back discomfort specifically
 - 45% improvement in employee risk score (853/385)
 - 21% drop in lost productivity minutes (41/32)
 - 20% drop in lost productivity costs per employee (\$14,717/11,774)

CONCLUSIONS TO DATE

- Success with this small case study has allowed us to begin work on planning additional case studies
 - A second study using wearables (2019)
 - Use of a shirt style device
 - Include field/industrial workers this time
 - Introducing the potential use of exoskeletons at the utility (Late 2018/early 2019)
 - Limited job tasks
 - Non-energized work only

CONCLUSIONS TO DATE

- Additional Metrics regarding this case study will be made available at Ergo Expo in August
 - 24 August 8:30am-9:30am
 - PM9- Building and Maintaining a Successful Ergonomics Process



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QUESTIONS

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