



MENTAL HEALTH in TECH INDUSTRY

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ONE



Background

- RESEARCH BACKGROUND
- RESEARCH PROBLEM
- DATA WE USE

Substance Abuse and Mental Health
Services Administration (SAMHSA)
reported **1 in 5** American employees
suffers from mental illness each year.



Work Performance



Personal Life



A review of population studies (Angermeyer & Dietrich, 2005) shows



**Misconceptions about
mental disorder still
prevailed in the public**



**Inter-cultural
differences in
beliefs**



**There is a need to find the
relationship between people' s
beliefs about mental illness and
their behaviors.**



“

Due to public stigma or/and self stigma, many people choose not to search for mental health services which they could've benefited a lot from

Reasons:

- **To avoid being discriminated**
- **To avoid harm to social opportunities**

”

Corrigan, 2004

Research Problem

What factors might predict the probability of searching for mental health treatment?



Are demographic traits such as gender and geographical locations good predictors?



Do people's beliefs and attitudes towards mental illness affect their likelihood in searching for mental health treatment?



Does people's perceived support from workplace affect their likelihood in searching for mental health treatment?



Data We Use

- Survey data
- 1259 observations, 26 variable
- Dependent variable :
 - ✓ Treatment (YES/NO)
- Independent variable:
 - ✓ Demographic information
 - ✓ Perceived support at workspace
 - ✓ Beliefs and attitudes towards mental illness issues



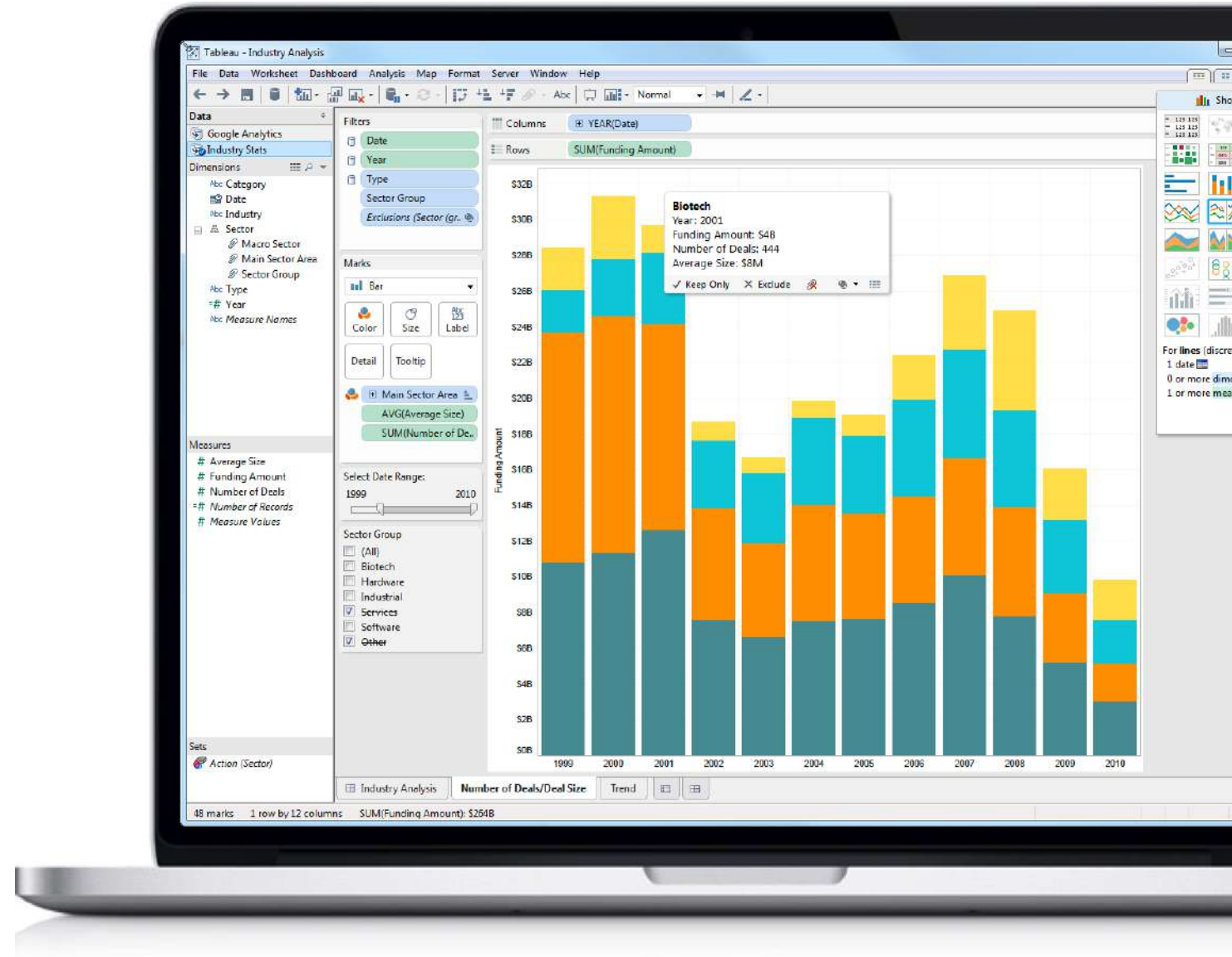
TWO



- DEMOGRAPHIC INFORMATION
- WORKPLACE SUPPORT
- BELIEF & ATTITUDE

Question 1:

Is Demographical Information a Good Predictor for Treatment Seeking Likelihood?



Gender Might be an Important Factor

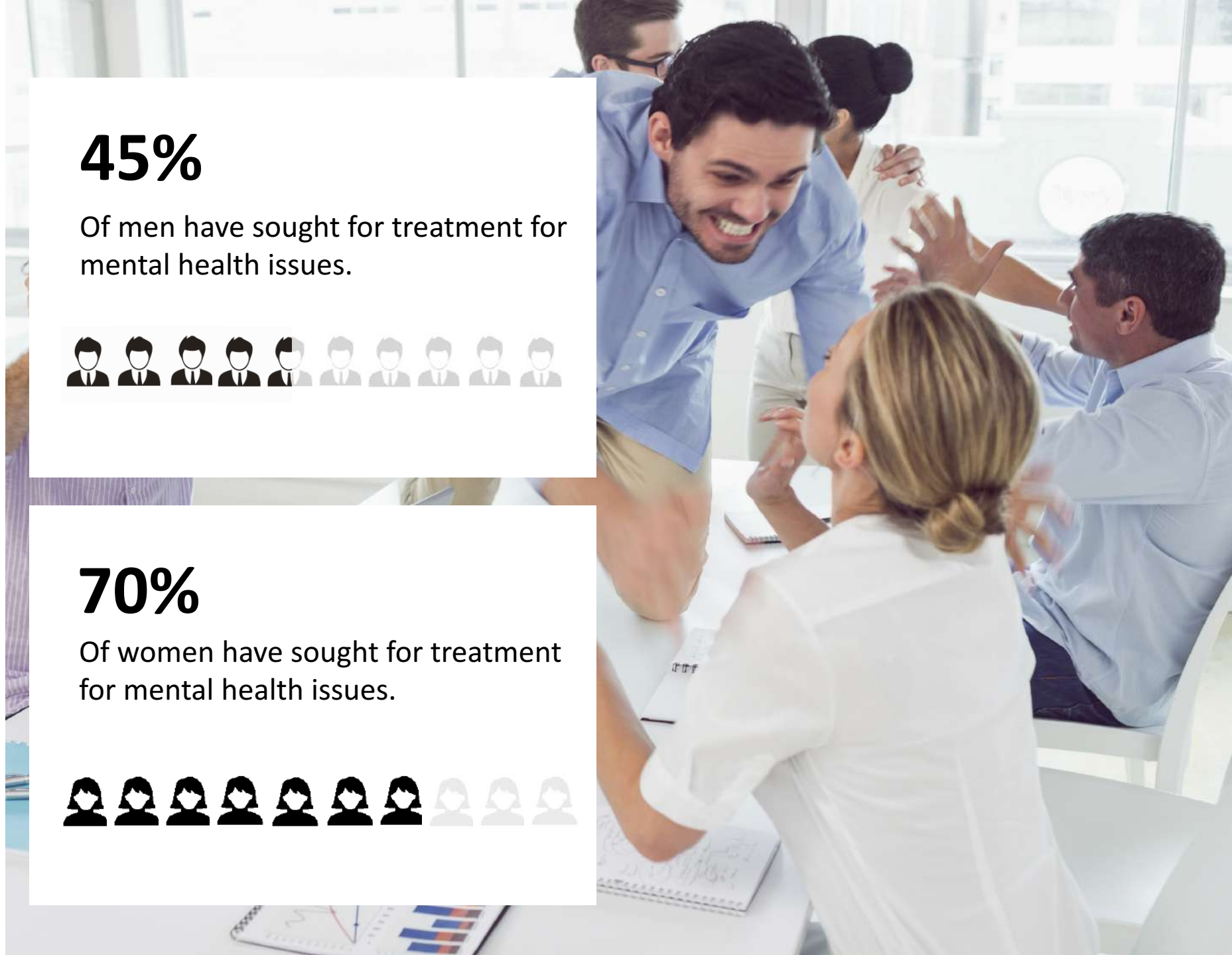
45%

Of men have sought for treatment for mental health issues.



70%

Of women have sought for treatment for mental health issues.



Family History Might also be an Important Factor

35%

Of respondents who **don't have** family history of mental health illness will sought for treatment.



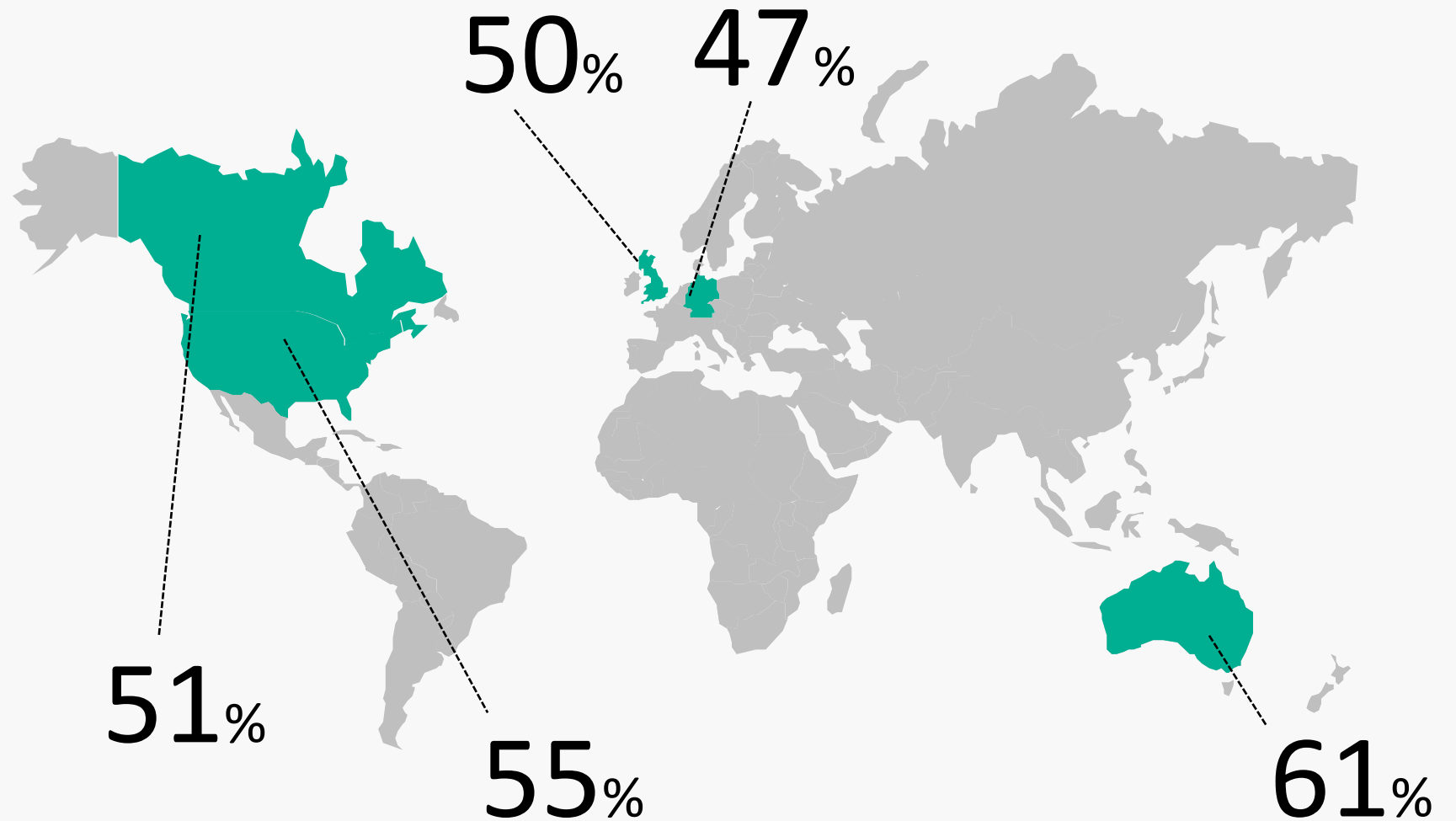
75%

Of respondents who **have** family history of mental health illness will sought for treatment.



Average rate of treatment across countries

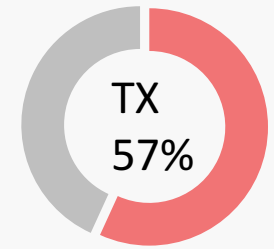
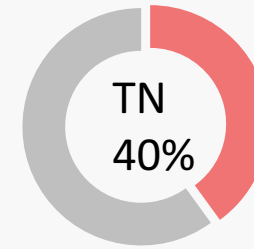
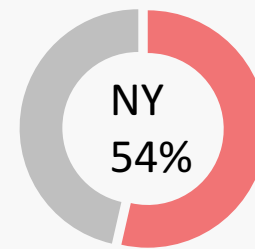
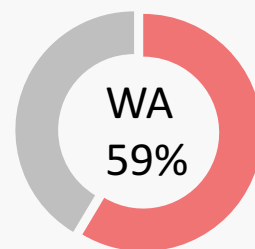
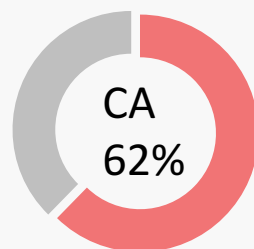
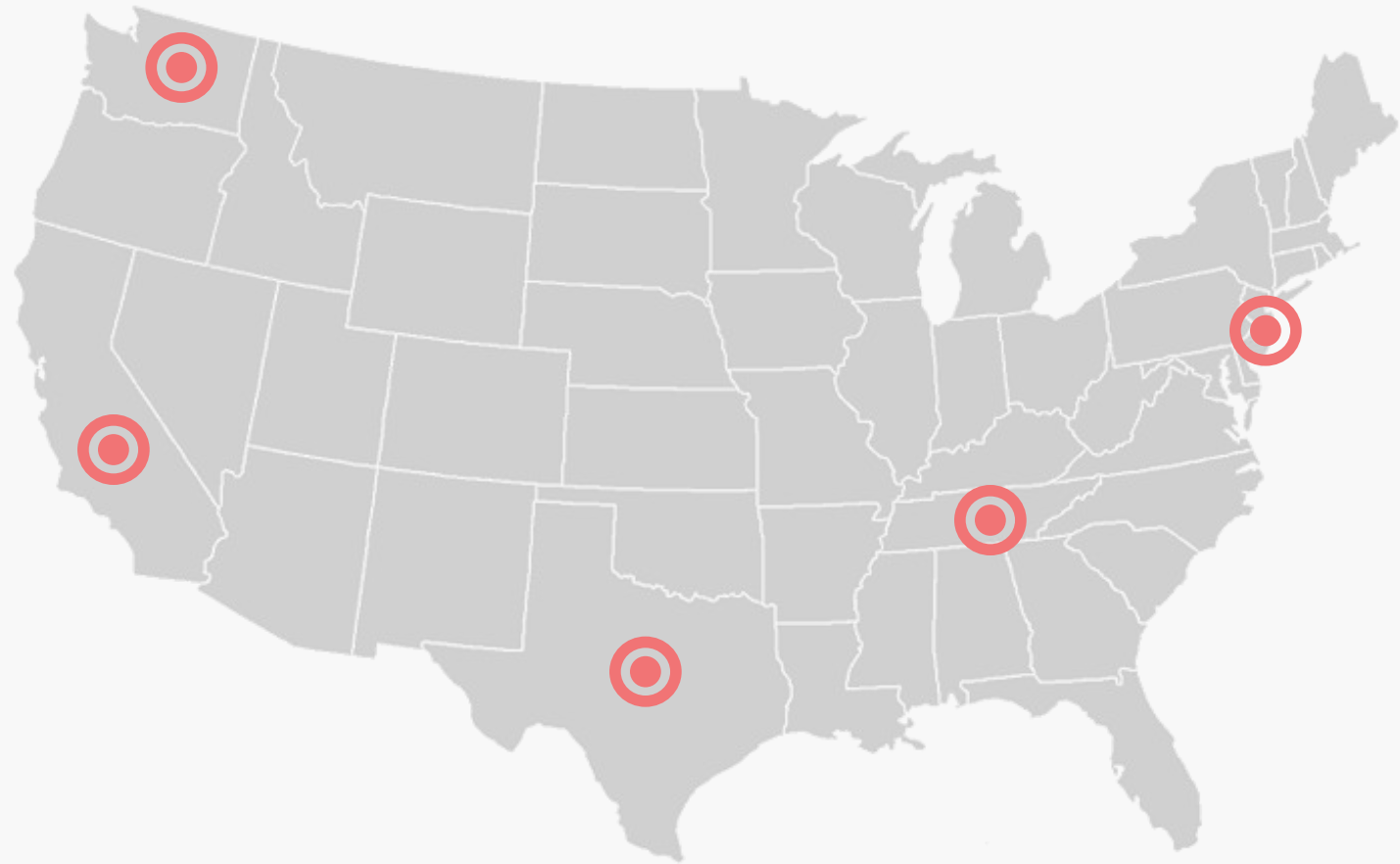
Among the total 1259 respondents from all over the world, the average rate of treatment is 50.6%.



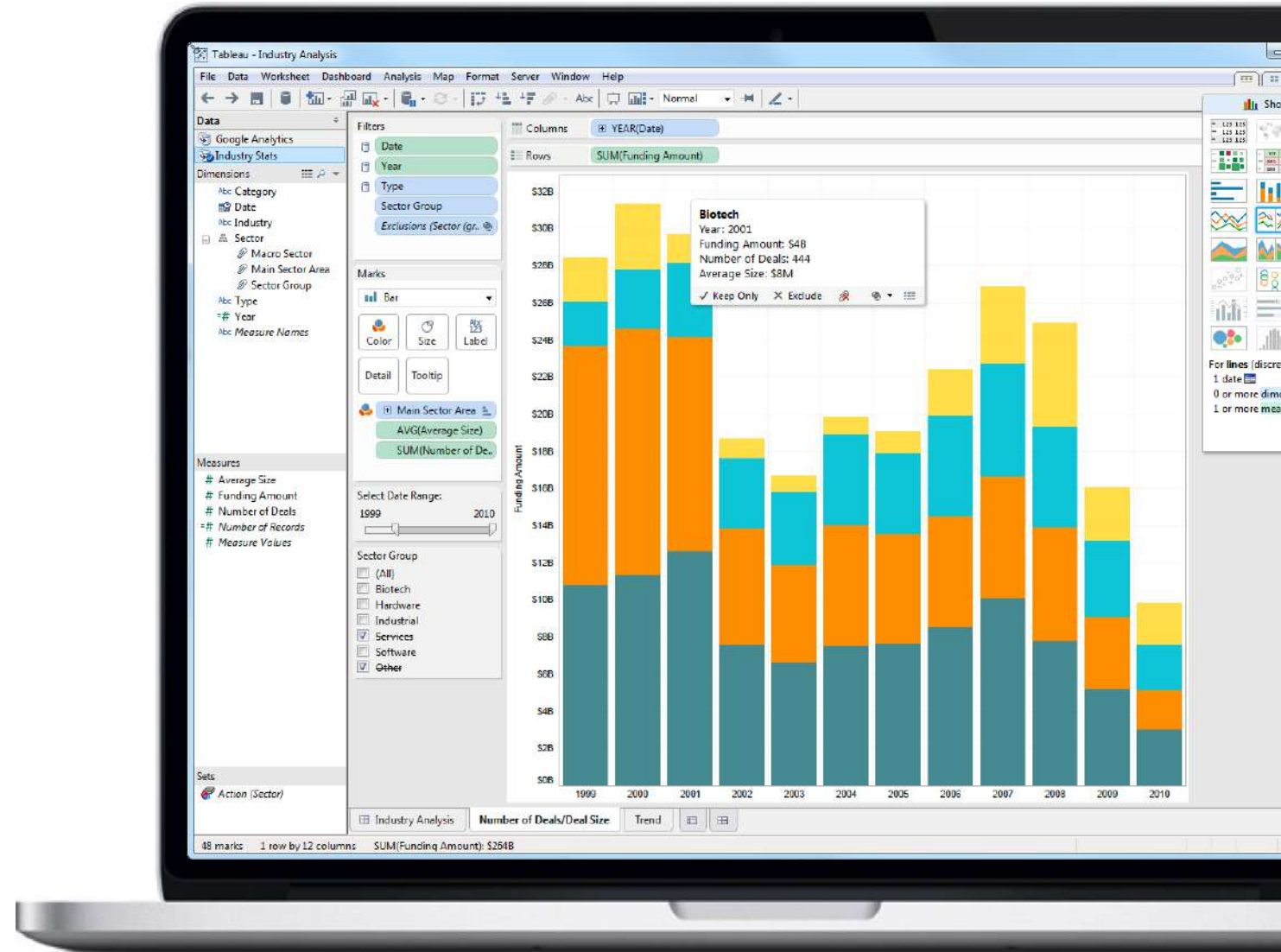
Average rate of treatment across states

There are 751
respondents from US, and
the average rate of
treatment in US is **54.6%.**

The top5 state is CA, WA,
NY, TN, TX, respondents
from these 5 states cover
the 47% of the
respondents.



Question 2:
Does Support from
Workplace Encourage
People to Seek for
Mental Illness
Treatment?



If you have a mental health condition, do you feel that it interferes with your work?



Average rate of treatment



Often Sometime Rarely Never



Average rate of treatment

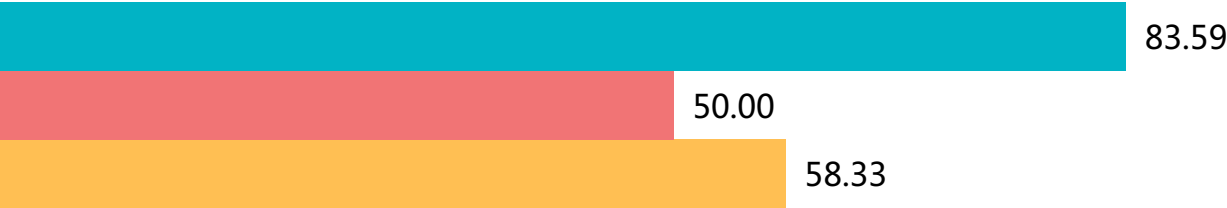


Often Sometime Rarely Never

Does
your
employer
provide
mental
health
benefits?



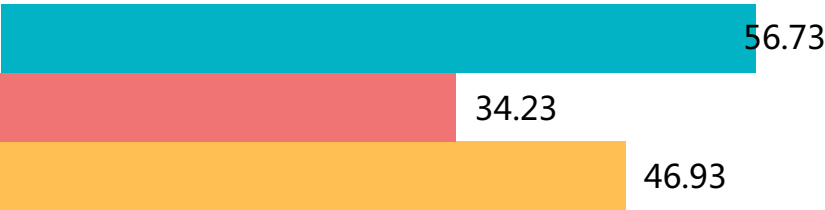
Average rate of treatment



Yes not sure No



Average rate of treatment



Yes not sure No

Do you know the options for mental health care your employer provides?



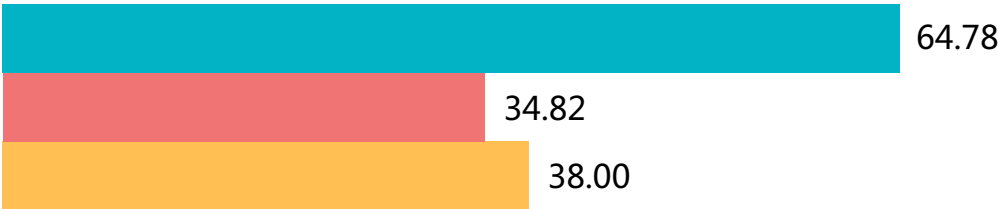
Average rate of treatment



Yes not sure No

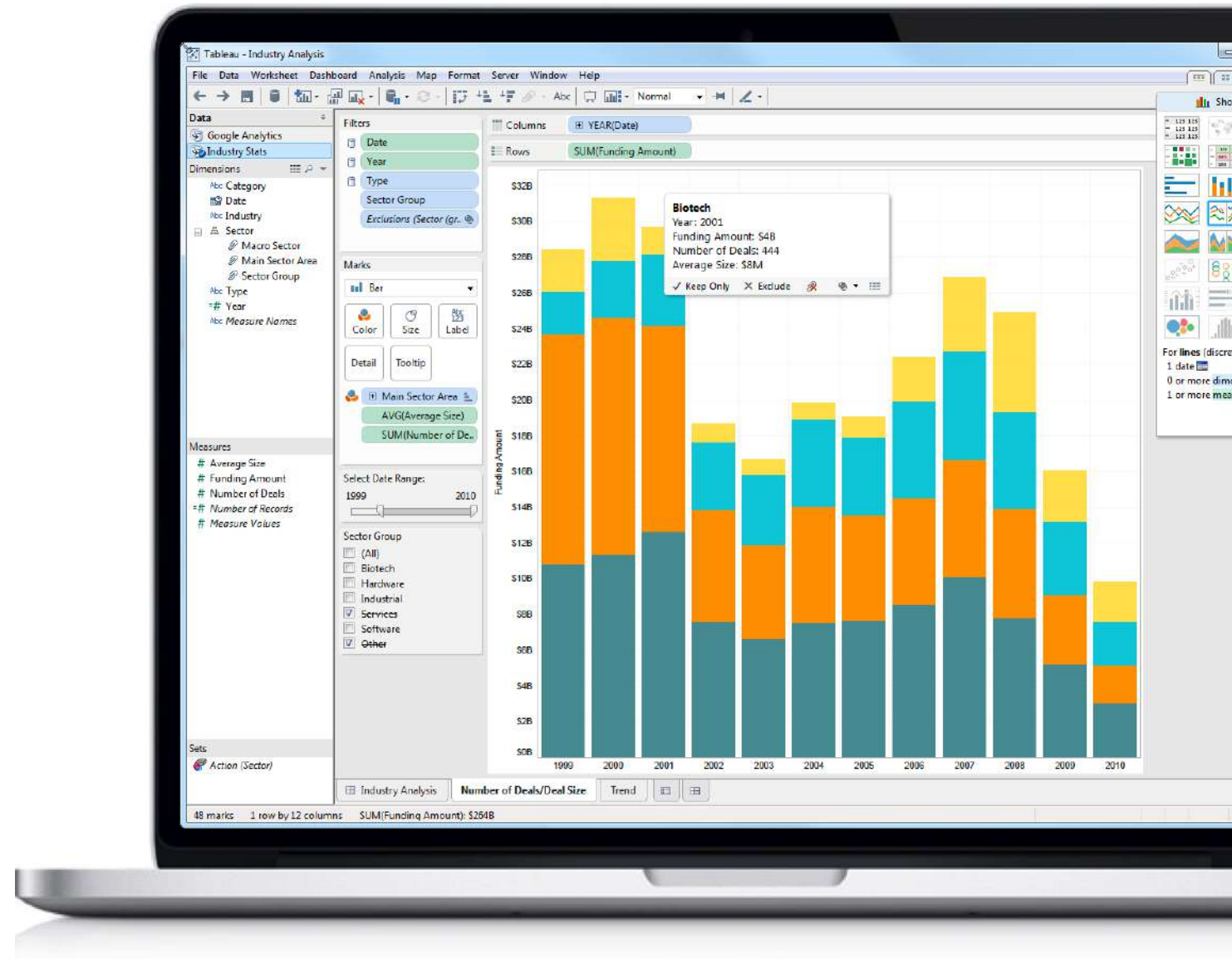


Average rate of treatment



Yes not sure No

Question 3:
How do Beliefs &
Attitudes Towards
Mental Illness Affect
People's Decisions in
Treatment Seeking ?



Would you be willing to discuss a mental health issue with your coworker?



Average rate of treatment



Yes some of them No



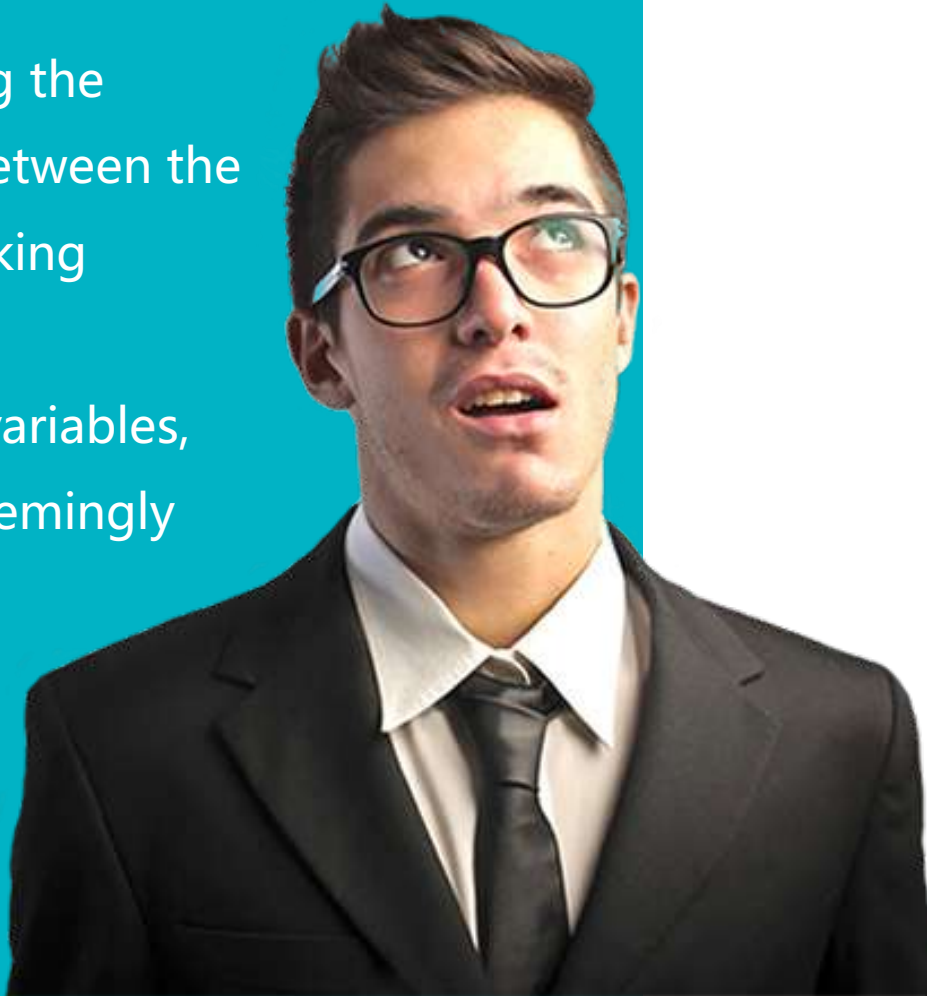
Average rate of treatment



Yes some of them No

“

After exploring the relationship between the treatment seeking likelihood and independent variables, we find the seemingly most relevant predictors...



Gender



Family History



Work Interference



Employee Awareness



~~**Geographic Information**~~

THREE



Predictive Analysis

Model Result



CHECK THE WHOLE MODEL

$P < 0.05$

The whole model is effective



CHECK THE KPI

$R^2 = 0.4388$



FIND THE BEST PREDICTOR

Effect Summary

Source	LogWorth	PValue
work_interfere{NA&Never-Rarely&Sometimes&Often}	86.635	0.00000
family_history	9.957	0.00000
care_options{No&Not sure-Yes}	6.837	0.00000
work_interfere{NA-Never}	4.920	0.00001

Whole Model Test

Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq
Difference	312.93344	4	625.8669	<.0001*
Full	400.30287			
Reduced	713.23630			

RSquare (U)	0.4388
AICc	810.664
BIC	835.287
Observations (or Sum Wgts)	1029

ALL
ABOUT
MODEL
RESULT

Fit Details

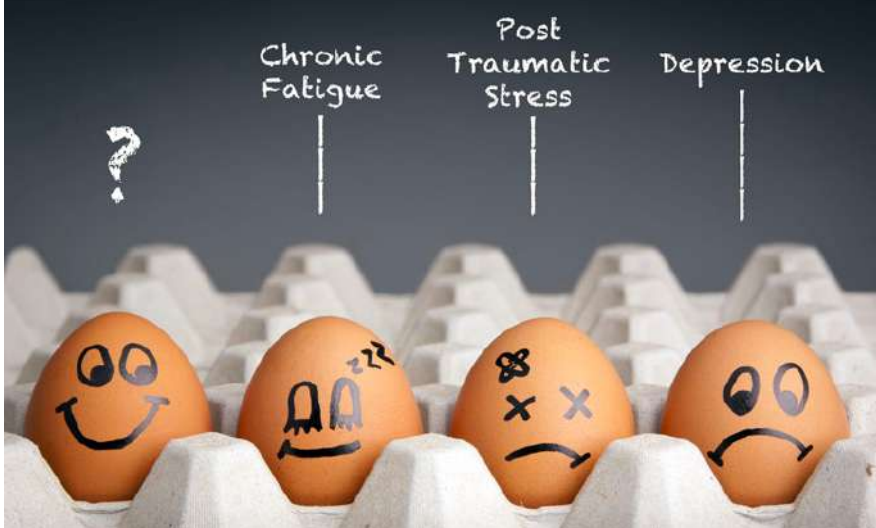
Measure	Training	Definition
Entropy RSquare	0.4388	$1 - \frac{\log(\text{L(model)})}{\log(\text{L(0)})}$
Generalized RSquare	0.6076	$(1 - (L(0)/L(model))^{2/n}) / (1 - L(0)^{2/n})$
Mean -Log p	0.3890	$\sum -\log(p_i) / n$
RMSE	0.3510	$\sqrt{\sum (y_i - p_i)^2 / n}$
Mean Abs Dev	0.2463	$\sum y_i - p_i / n$
Misclassification Rate	0.1720	$\sum (p_i \neq p_{Max}) / n$
N	1029	n

Parameter Estimates

Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept	0.52726473	0.1537004	11.77	0.0006*
work_interfere{NA&Never-Rarely&Sometimes&Often}	1.91505114	0.148098	167.21	<.0001*
work_interfere{NA-Never}	1.02897392	0.2790486	13.60	0.0002*
care_options{No&Not sure-Yes}	0.49003194	0.0958619	26.13	<.0001*
family_history{No}	0.58834953	0.0933446	39.73	<.0001*

For log odds of No/Yes

Best Predictor



INTERFERENCE



FAMILY HISTORY



EMPLOYEE AWARENESS

FOUR



Conclusion & Suggestion

Research Conclusion

What factors might predict the probability of searching for mental health treatment?



YES!



Not statistically significant!



YES!



Suggestion



Employer should care about their employee's mental illness treatment.



Employer should proactively inform about their care options to the employees





⋮

Thank You !

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