



USING APPS TO HELP SMOKERS QUIT

SOME RESEARCH, DATA, AND
REAL-WORLD APPLICATIONS

NAQC Presentation

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Tobacco Cessation
Coordinator, WA DOH

THE NEED

- Nationally ~18% smoke
- Largest cause of death, disease & spending
- Over 1/2 want to quit
- Most don't access programs
- Hard to reach groups
- Cost pressures
- Data



THE POTENTIAL

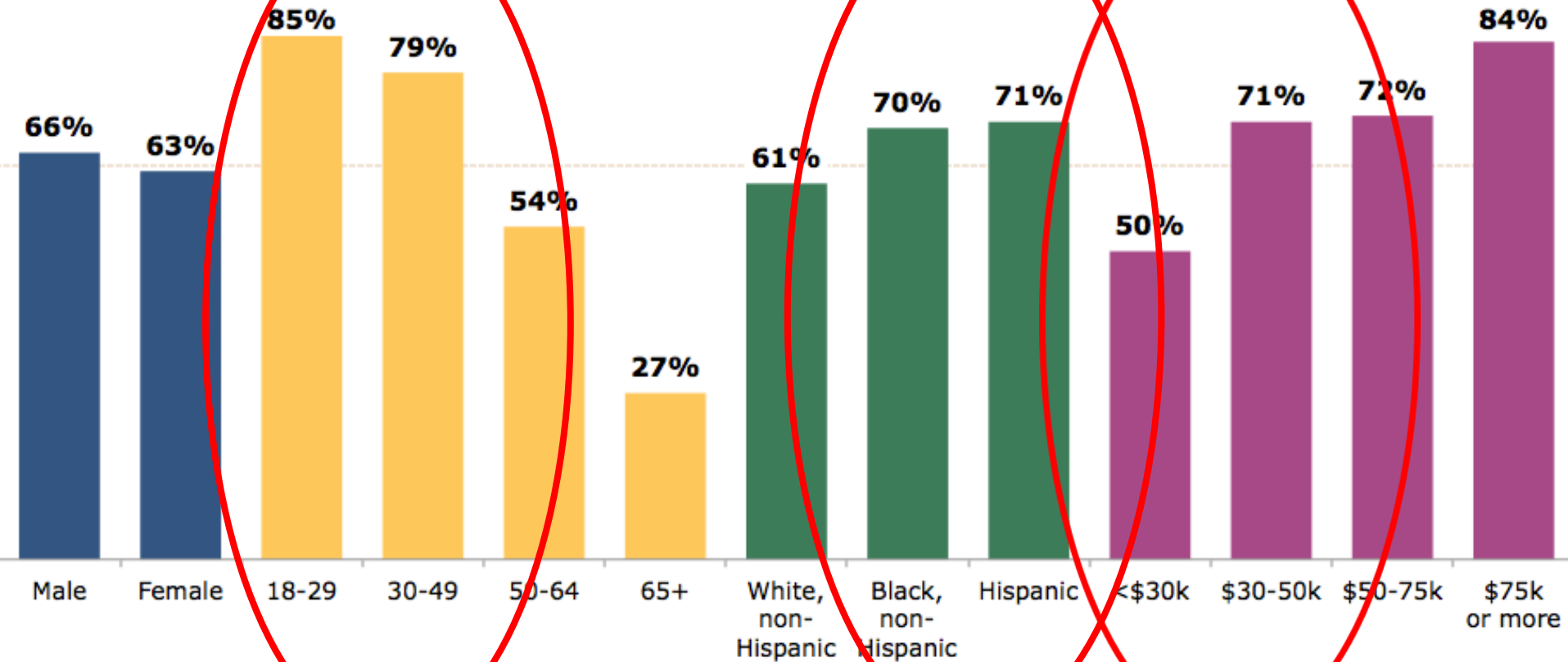
- Reach
- Easy Access
- Always with you
- Private - Personalized
- Cost effective
- Data and Learning



US Smartphone Ownership, by Demographic

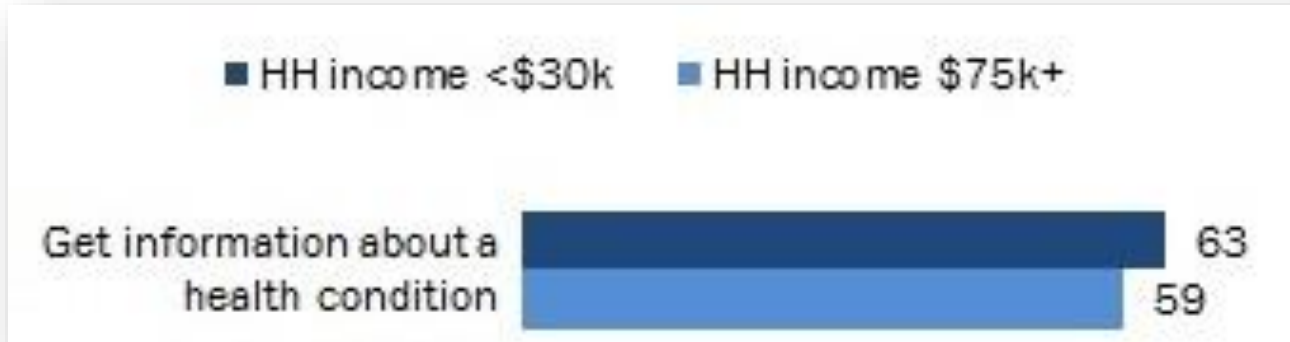
based on surveys conducted in December 2014 among 2,002 US adults

April 2015



MarketingCharts.com | Data Source: Pew Research Center's Internet & American Life Project

ACCESS TO INFORMATION



63% of low income
Smartphone users use
their phones to find or
access health info. (PEW)



MOBILE - ALREADY A HABIT

Over 50% of Smartphone users check their phones at least hourly.

Most will go home if they forget their phone.

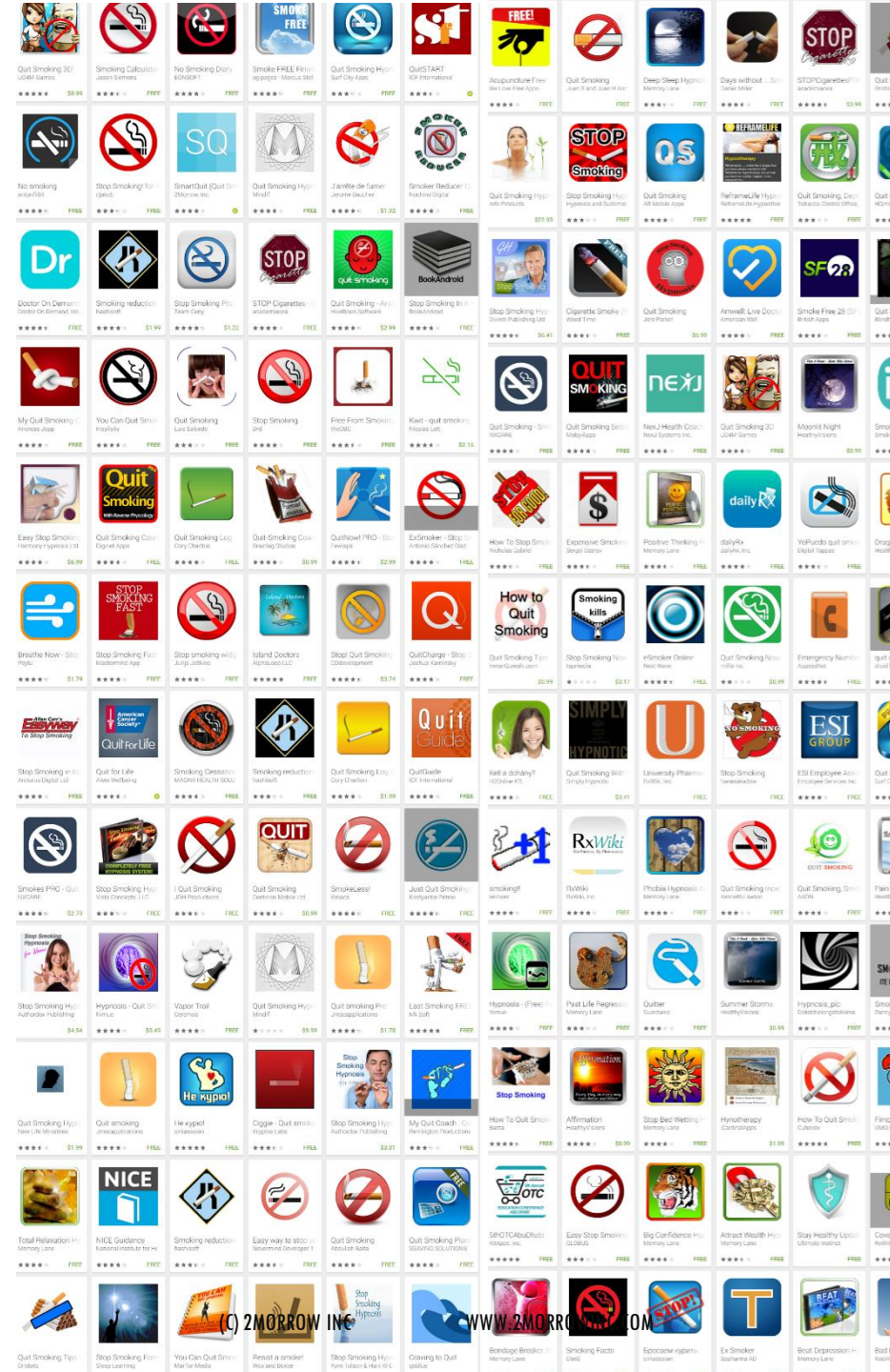
Preferred format:
Smoking Cessation

- 83% - app
- 17% - telephone coaching



THE CHALLENGES

- Over 600 apps
- Research & efficacy
- Data security
- Privacy / HIPAA
- Integration with current programs
- Reporting & Data



THE RESEARCH

Published studies:

- ACT-based smartphone app
- Text Messaging



Planned / In Progress smartphone studies

- Sensing Movement
- Apps for Youth & Games
- Mobile carbon monoxide monitors
- Mindfulness-based program
- ACT, SmartQuit (LSDF & large NIH study)
- SmartQuit plus NRT VS NRT alone

CUTTING EDGE RESEARCH



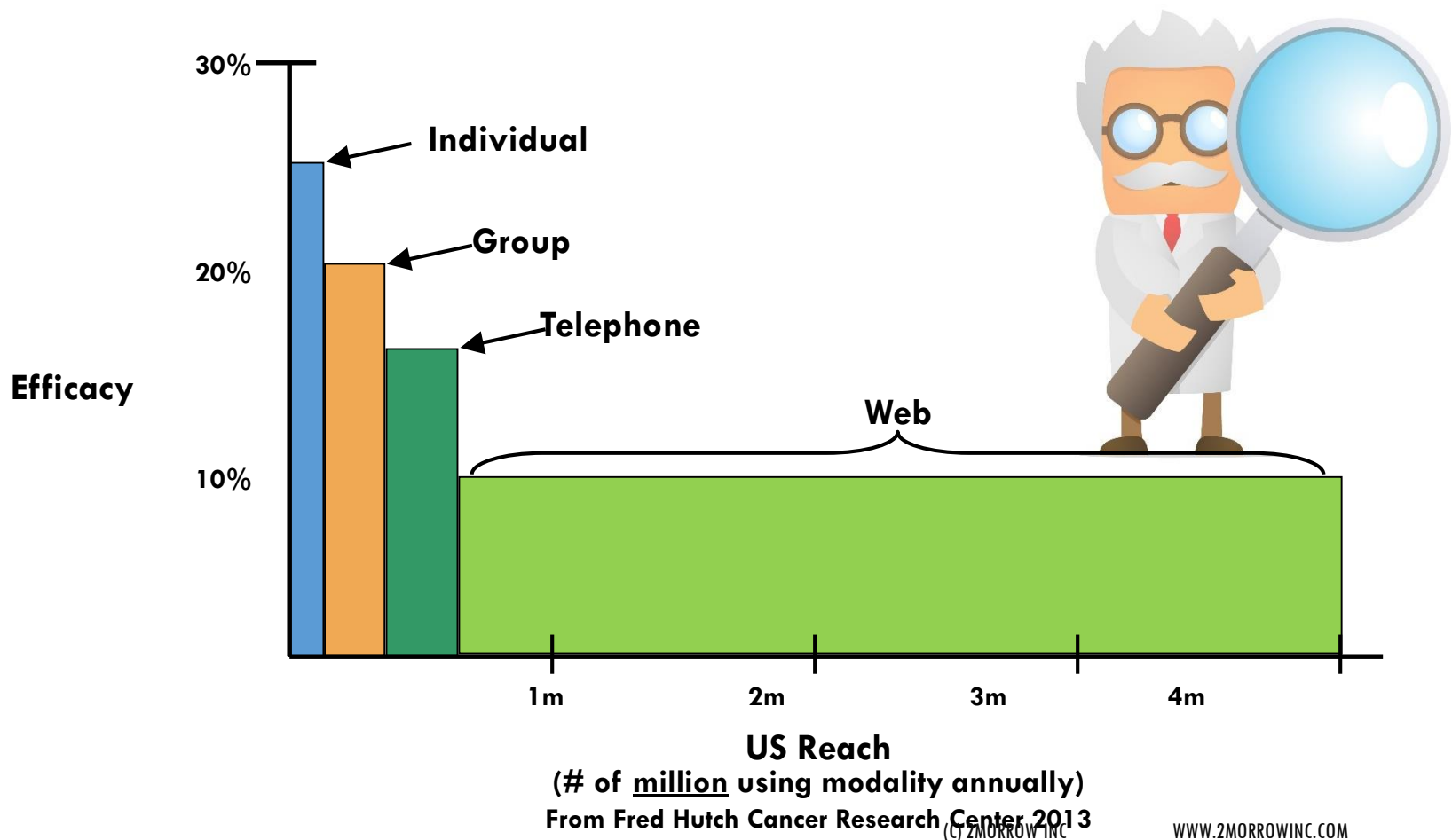
FRED HUTCH
CURES START HERE

Dr. Jonathan Bricker – a leading behavioral scientist at Fred Hutch Cancer Research Center in Seattle

- \$13 Million NIH Grants for ACT smoking cessation studies
- 6 Published Studies
- Over 50 research publications
- Over 300 interviews including: NYT, Washington Post, CNN & NPR
- [TEDx Talk](#)



US CESSATION TREATMENT: REACH & EFFICACY



THE SMARTQUIT STUDY (1.0)

Can an ACT-based smoking cessation program help smokers when delivered over a smartphone?

Collaboration:



FRED HUTCH
CURES START HERE™



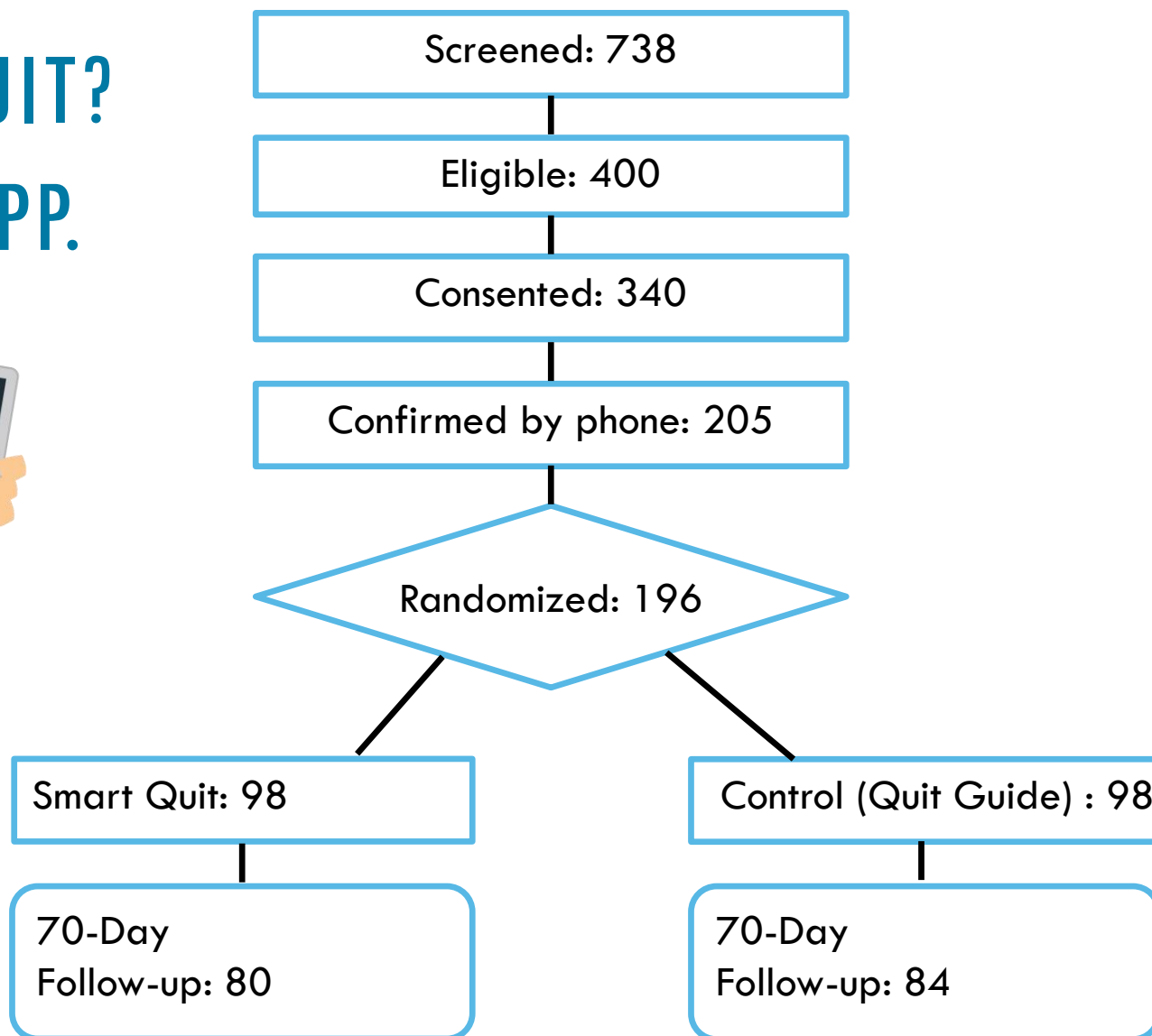
STUDY DESIGN

Randomized Control Trial testing an Acceptance and Commitment Therapy (ACT) based programs against the current approach (CBT).

- Randomized Control Trial
- 200 smokers
- 100 per arm (app)
- 70 day follow-up
- Intent to treat - 30 day PP



WANT TO QUIT? TRY THIS APP.



USAGE & SATISFACTION

| | Control | SmartQuit |
|-----------------------------------|-------------|-------------|
| Number of times opened app | 15.2 | 37.2 |

| | Control | SmartQuit |
|--------------------------------|------------|------------|
| Satisfied overall | 45% | 59% |
| App was organized | 67% | 85% |
| App useful for quitting | 38% | 53% |

70-DAY FOLLOW UP - QUIT RATES (30D PP)

| | None* | Control App | SmartQuit (ACT) |
|-----------|-------|-------------|-----------------|
| Quit Rate | 4-7% | 8% | 13% |

Notes:

- Intent to treat quit rates (not response)
- No NRT or meds provided
- Limited by study size and length, larger, longer study in progress

*per cancer.org



70-DAY FU QUIT (30D PP): KEY SUBGROUPS

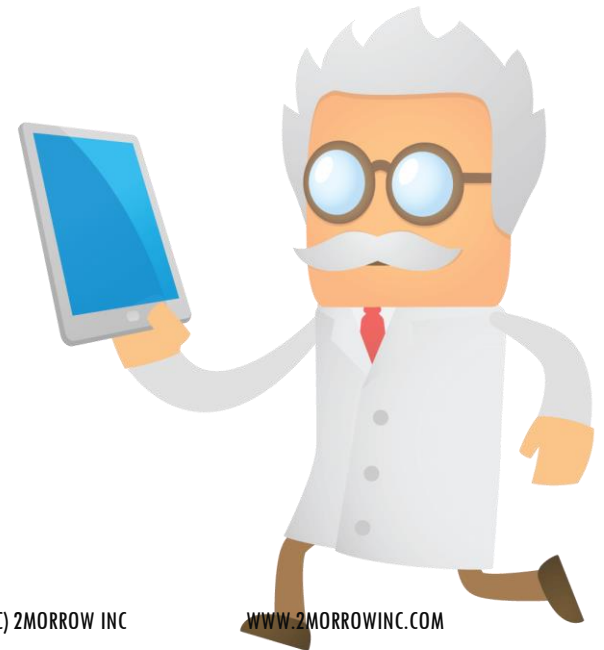
| Baseline Subgroup | Control | SmartQuit |
|-----------------------|---------|-----------|
| Pack-A-Day or More | 6% | 11% |
| Avoidance of Cravings | 8% | 15% |

WHAT WE LEARNED

- The app appears to help smokers quit
- Most helpful included: ACT exercises, Quit Plan...
- Least helpful: Some things users liked, did not help
- Usage dropped off
- Usability (UI) matters

Next Steps:

- Second study
- Distribution to smokers (2Morrow)
- UI - Usability improvements
- Expand what helped
- Re-think what did not



SMARTQUIT 2.0

Version 2.0 funded by a Life Sciences Discovery Fund.

- Research-based improvements
- Improved User Interface
- Distribution model
- Dashboard
- Security/HIPAA
- Launch
- 2nd Study



STILL THE WILD WEST — THE EARLY DAYS



- Smokers are already downloading apps
- Research is needed and underway
- We don't know what we don't know without testing and trial
- Risk vs Reward

LESSONS FROM THE WEST

Q & A: with Joella Pyatt

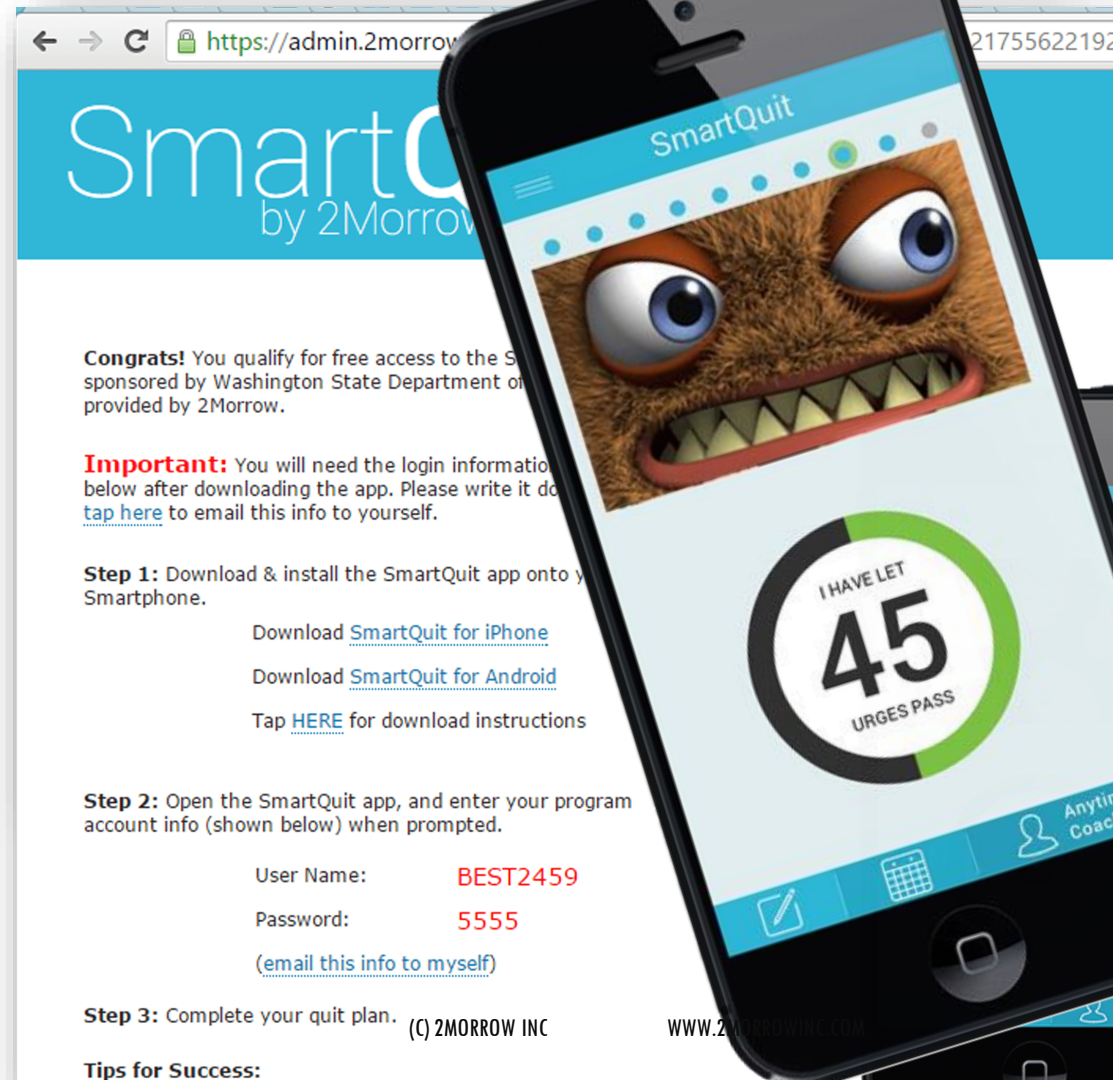
Washington State Department of Health

- Why was WA interested in an app?
- What were the goals?
- What were the concerns?



HOW IT WORKS IN WA STATE

- Promotion
- Online Sign-up Survey
- Authorization
- Download / Login






WA STATE COLLECTED DATA

First 5 months


WA LAUNCH, THE FIRST 5 MONTHS

- 1314 Sign-up form
- 1251 Qualified (WA)
- 501 Activated Apps

Want to quit tobacco? There's an app for that!



Urge Monster




SmartQuit™ App

Do you live in Washington State?
Are you looking for a new way to quit?

Learn how to **accept your urges** instead of ignore them.
To become the master of your Urge Monster visit
doh.wa.gov/SmartQuit to get free access to the app.

Sponsored by the Washington State Department of Health

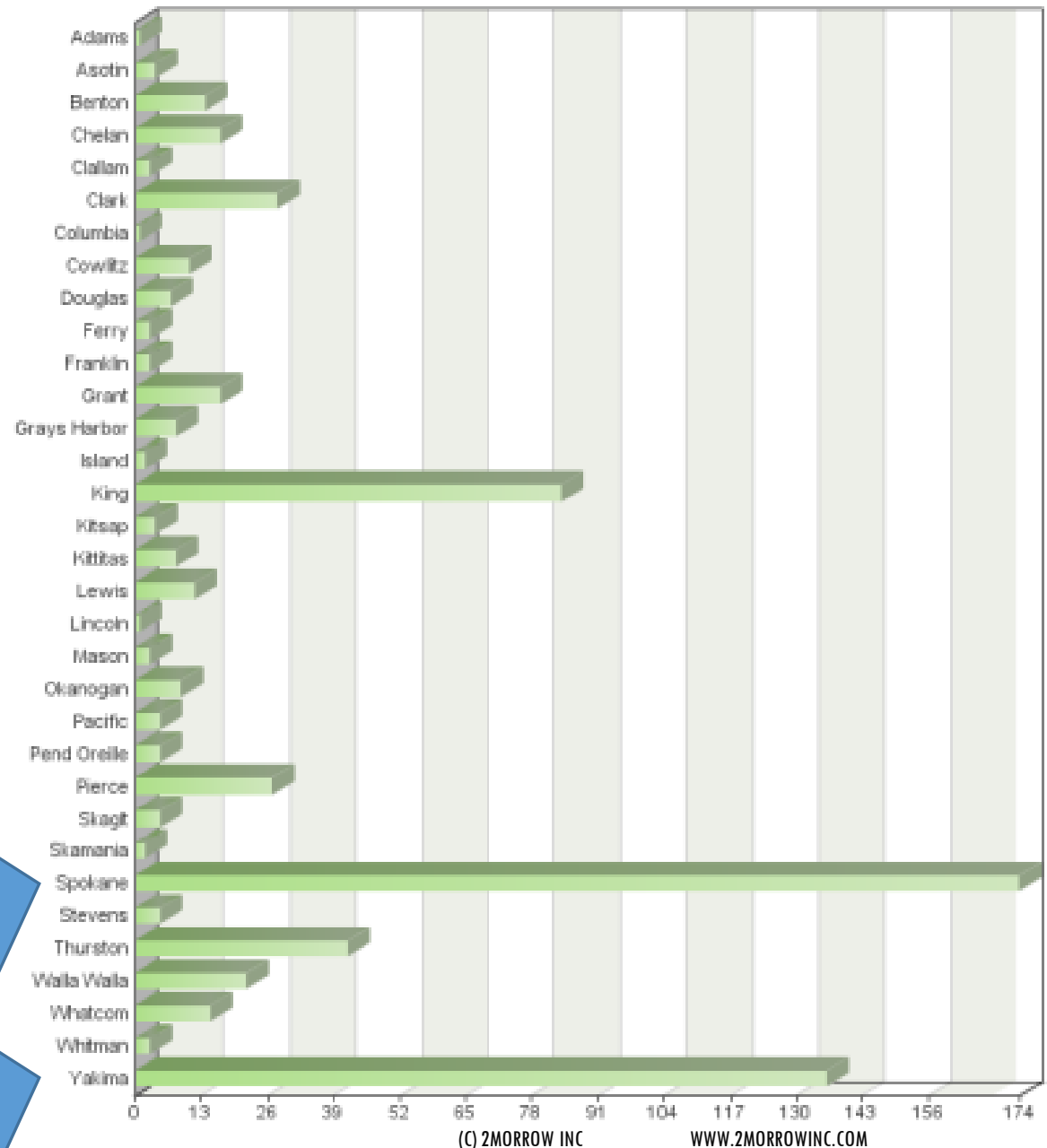


**The SmartQuit™ program is personal, easy to use
and 3 times more effective than trying to quit on your own.**

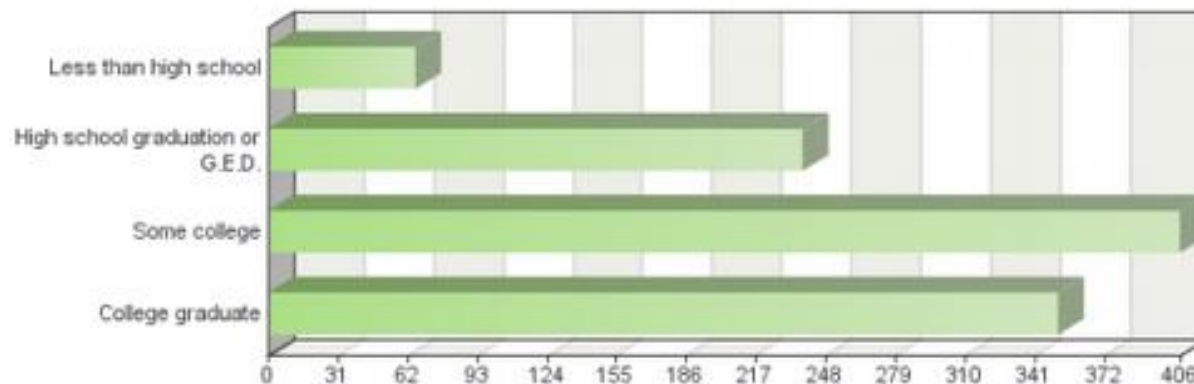
REACH BY LOCATION

Expanded reach
in Eastern WA.

1. Spokane
2. Yakima
3. King



EDUCATION



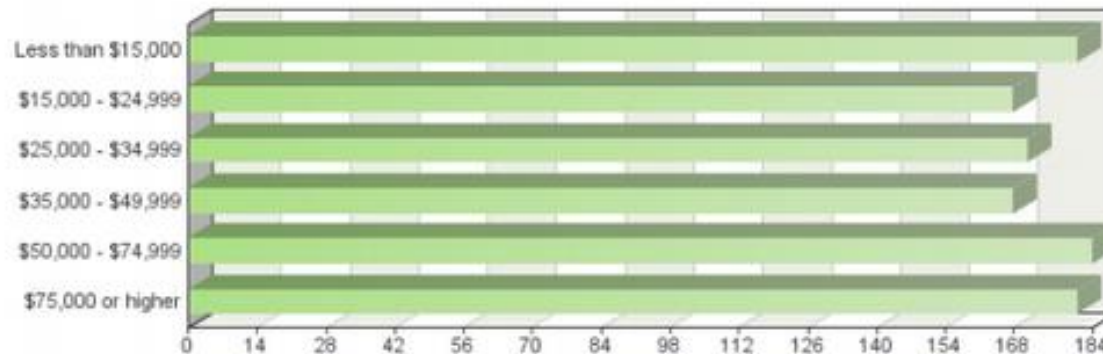
Frequency table

| Choices | Absolute frequency | Relative frequency | Adjusted relative frequency |
|----------------------------------|--------------------|--------------------|-----------------------------|
| Less than high school | 66 | 5% | 6.21% |
| High school graduation or G.E.D. | 238 | 18.04% | 22.41% |
| Some college | 406 | 30.78% | 38.23% |
| College graduate | 352 | 26.69% | 33.15% |
| Sum: | 1062 | 80.52% | 100% |
| Not answered: | 257 | 19.48% | - |

Total answered: 1062

HOUSEHOLD INCOME

What is your household income?



Frequency table

| Choices | Absolute frequency | Relative frequency | Adjusted relative frequency |
|---------------------|--------------------|--------------------|-----------------------------|
| Less than \$15,000 | 181 | 13.72% | 17.19% |
| \$15,000 - \$24,999 | 168 | 12.74% | 15.95% |
| \$25,000 - \$34,999 | 171 | 12.96% | 16.24% |
| \$35,000 - \$49,999 | 168 | 12.74% | 15.95% |
| \$50,000 - \$74,999 | 184 | 13.95% | 17.47% |
| \$75,000 or higher | 181 | 13.72% | 17.19% |
| Sum: | 1053 | 79.83% | 100% |
| Not answered: | 266 | 20.17% | - |

Total answered: 1053

RACE & ETHNICITY

| | |
|------------------------|-----|
| White | 83% |
| Hispanic | 5% |
| Other | 3% |
| Black/African American | 3% |
| Asian | 3% |
| Native American | 2% |



SEXUAL ORIENTATION

| | |
|------------------|-----|
| Heterosexual | 90% |
| Gay or Lesbian | 4% |
| Bisexual | 3% |
| Transgender | <1% |
| Other/Don't Know | 3% |

Frequency table

| Choices | Absolute frequency | Relative frequency | Adjusted relative frequency |
|--------------------------|--------------------|--------------------|-----------------------------|
| Heterosexual or straight | 953 | 72.25% | 89.91% |
| Gay or Lesbian | 41 | 3.11% | 3.87% |
| Bisexual | 33 | 2.5% | 3.11% |
| Transgender | 3 | 0.23% | 0.28% |
| Other | 15 | 1.14% | 1.42% |
| Don't know | 15 | 1.14% | 1.42% |
| Sum: | 1060 | 80.36% | 100% |
| Not answered: | 259 | 19.64% | - |

Total answered: 1060

PREGNANCY

Pregnant 24

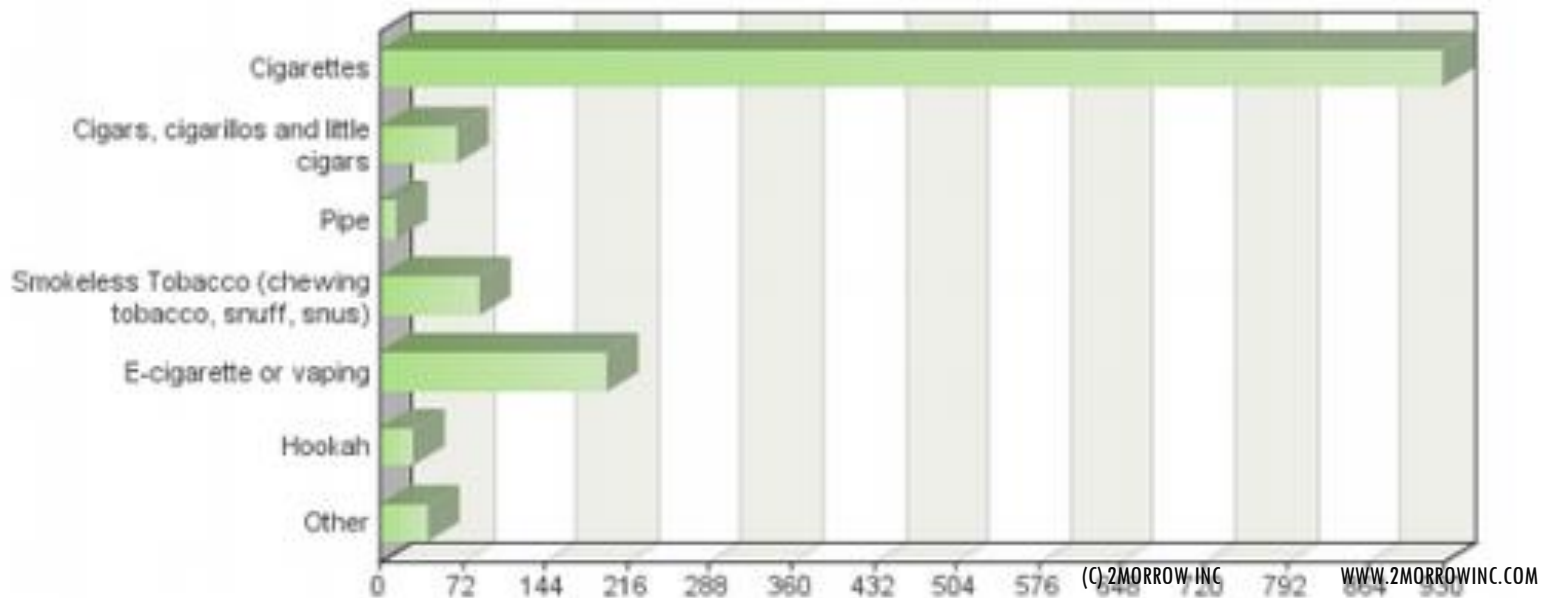
Who plan to
become pregnant
in next 3 months 27

Who are
breastfeeding 10



TYPE: CIGARETTES (THEN E-CIGS)

1. Cigarettes
2. Vaping / e-cigs
3. Smokeless

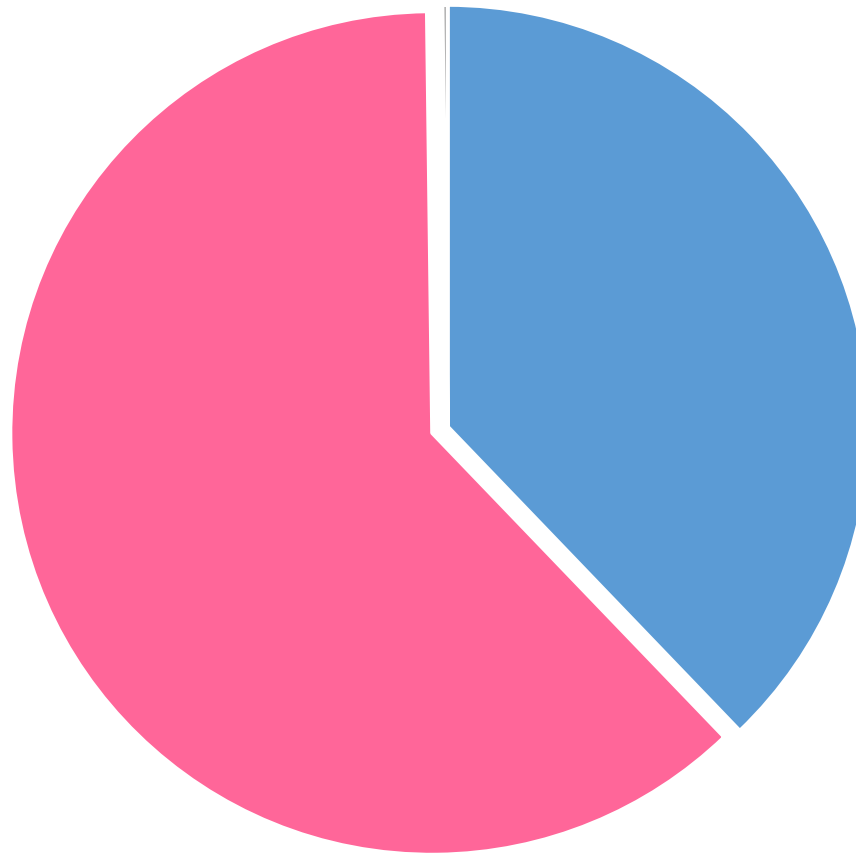




WA STATE APP COLLECTED DATA

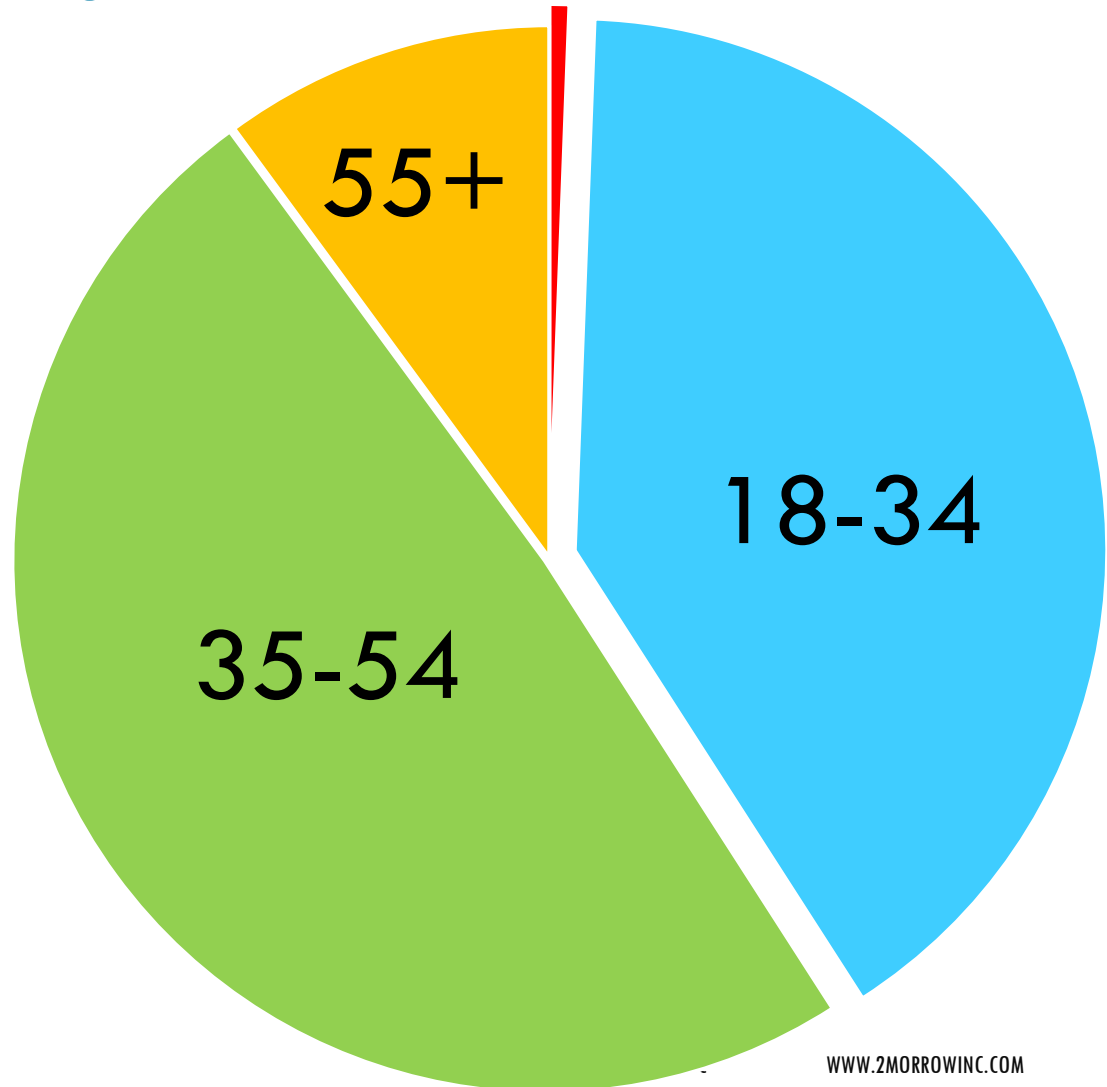
First 5 months

PARTICIPANT GENDER



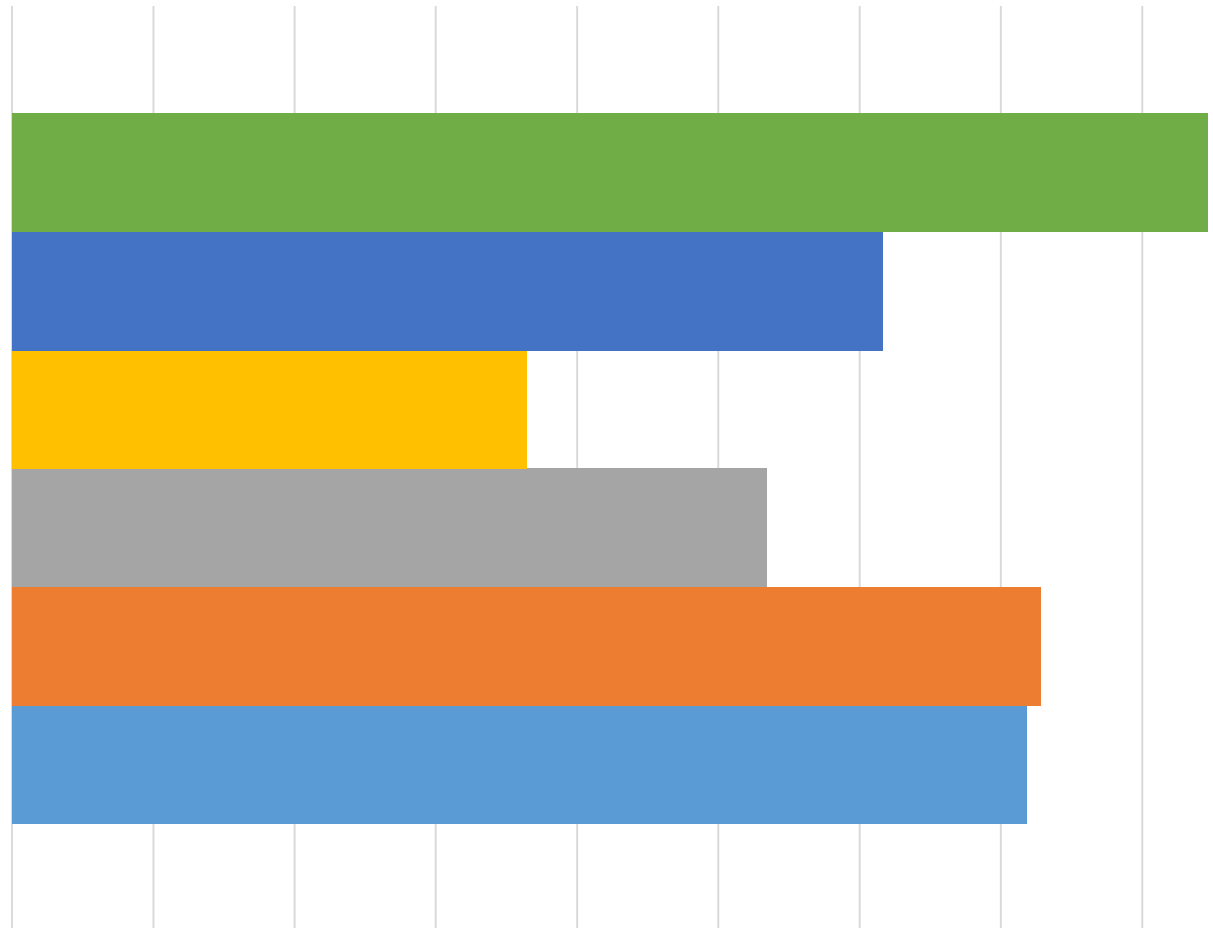
PARTICIPANT AGE

- <18
- 18 to 34
- 35 to 54
- 55 +

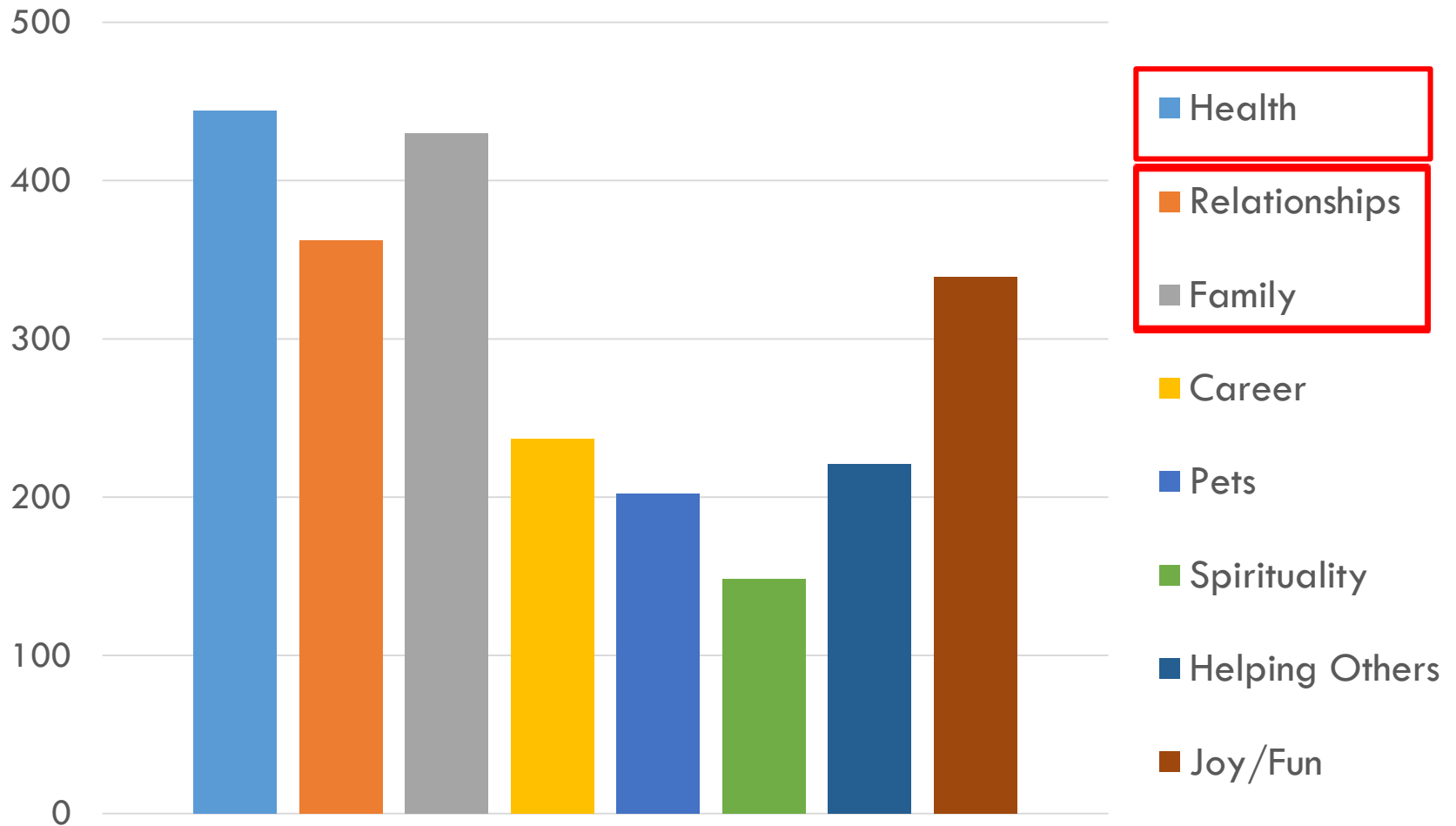


CONCERNS ABOUT QUITTING

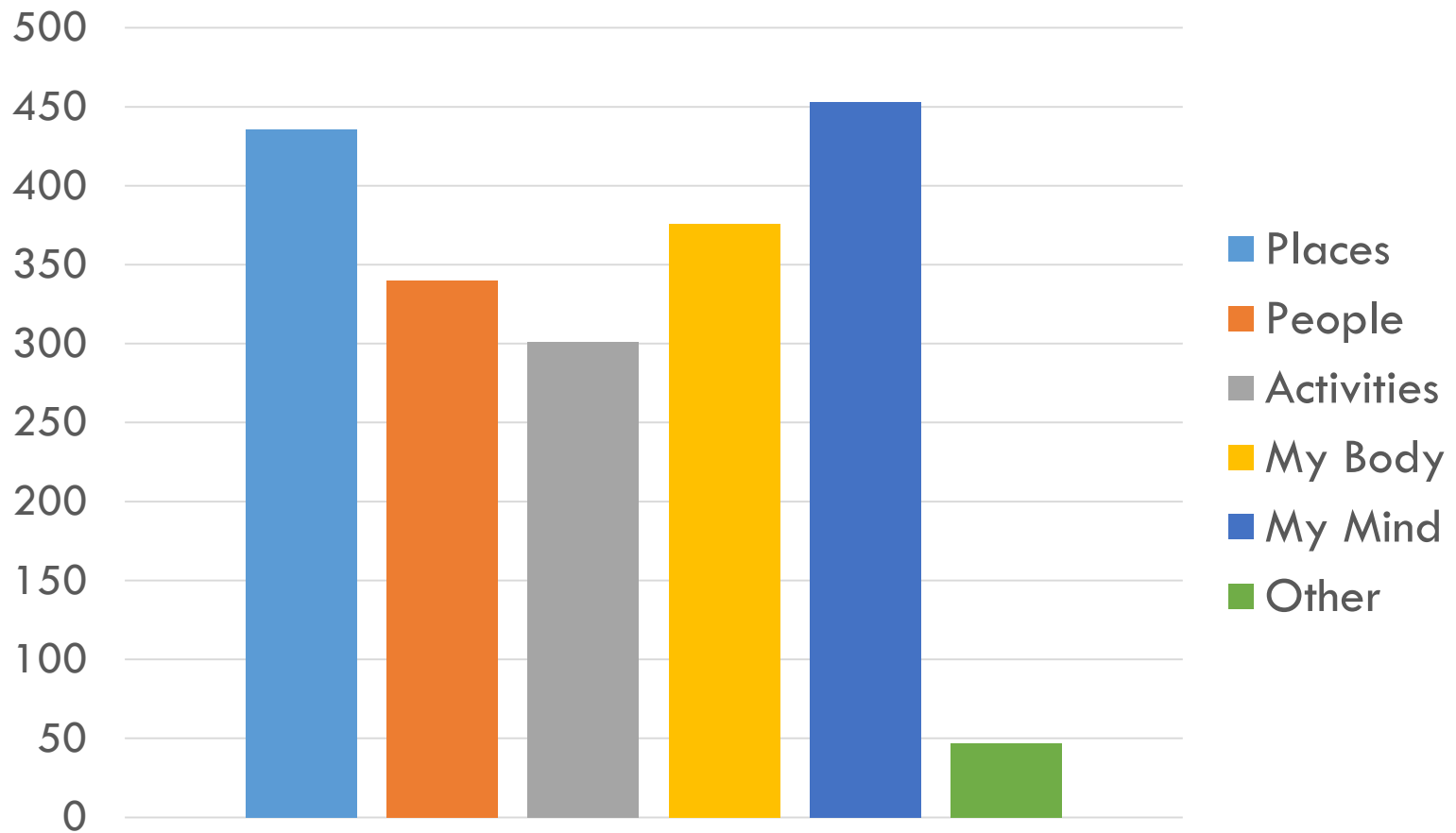
- Mood
- Physical Withdrawals
- Social Loss
- Weight
- Willpower
- Stress



WHAT MATTERS - MOTIVATION

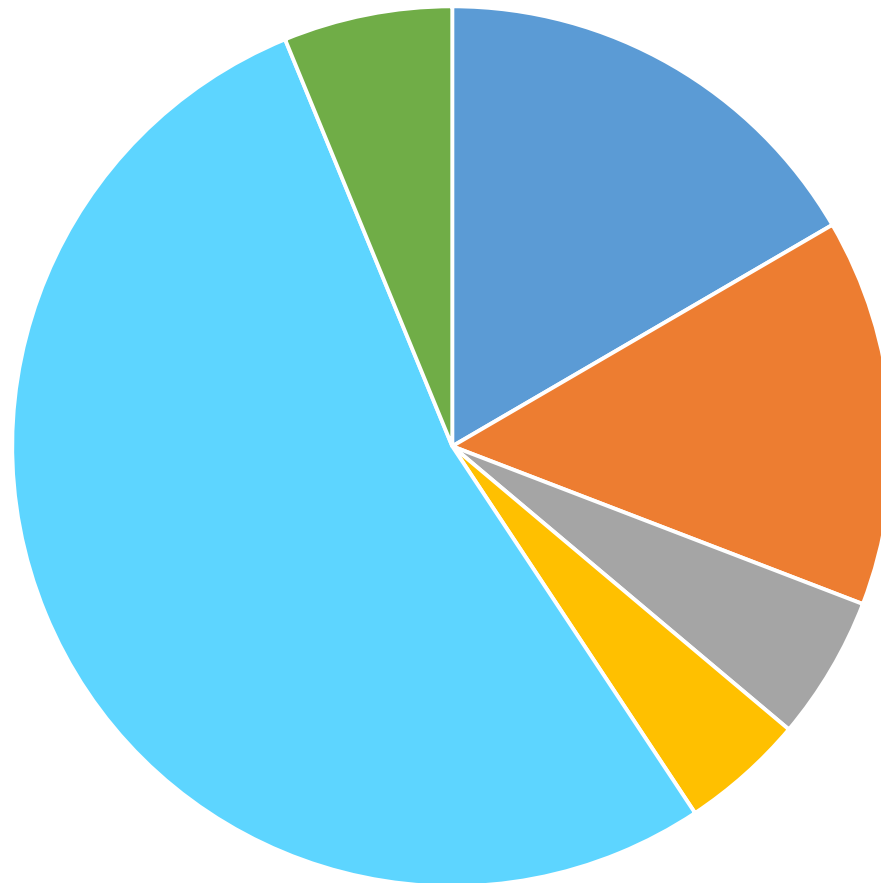


TRIGGERS

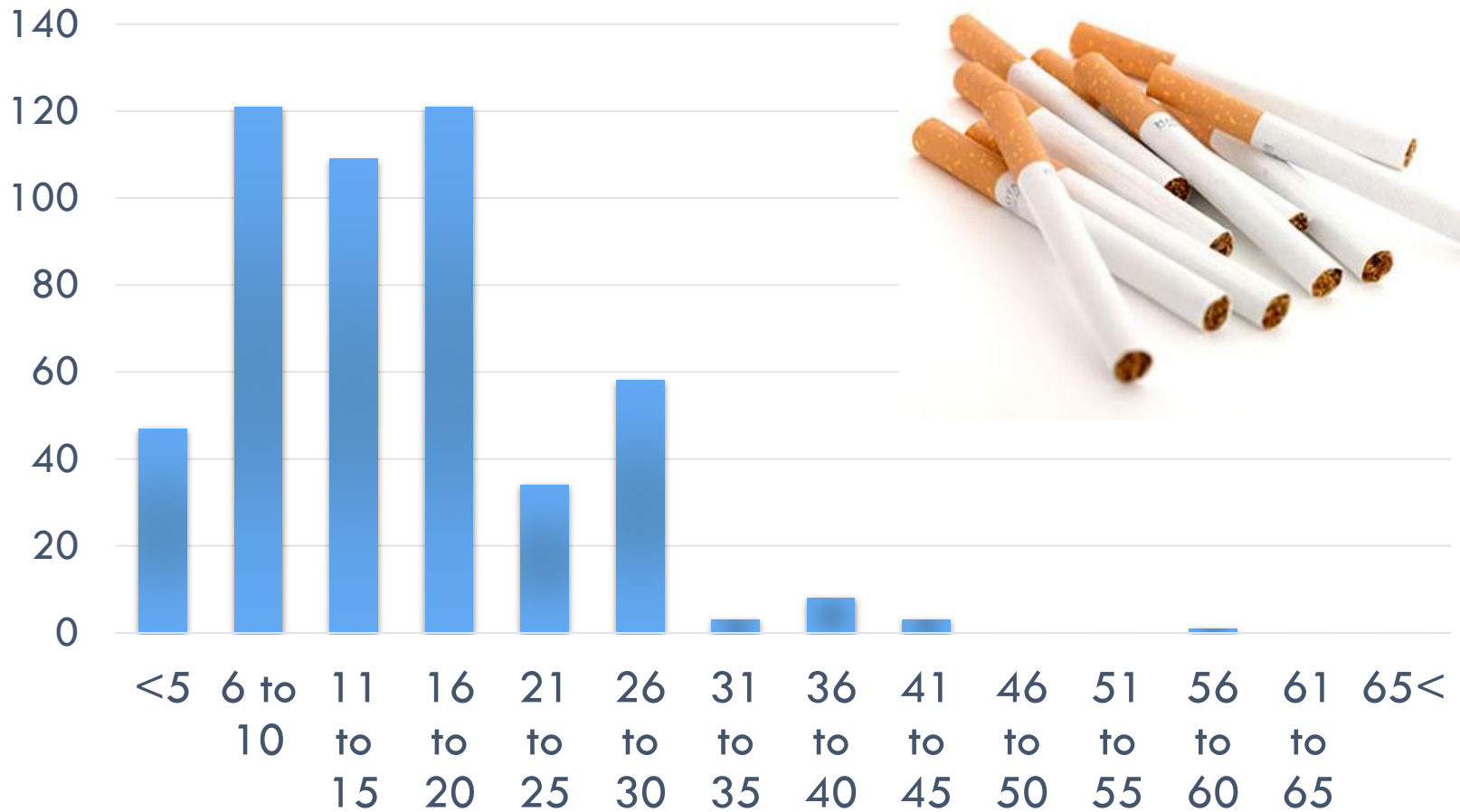


QUIT MEDICATIONS

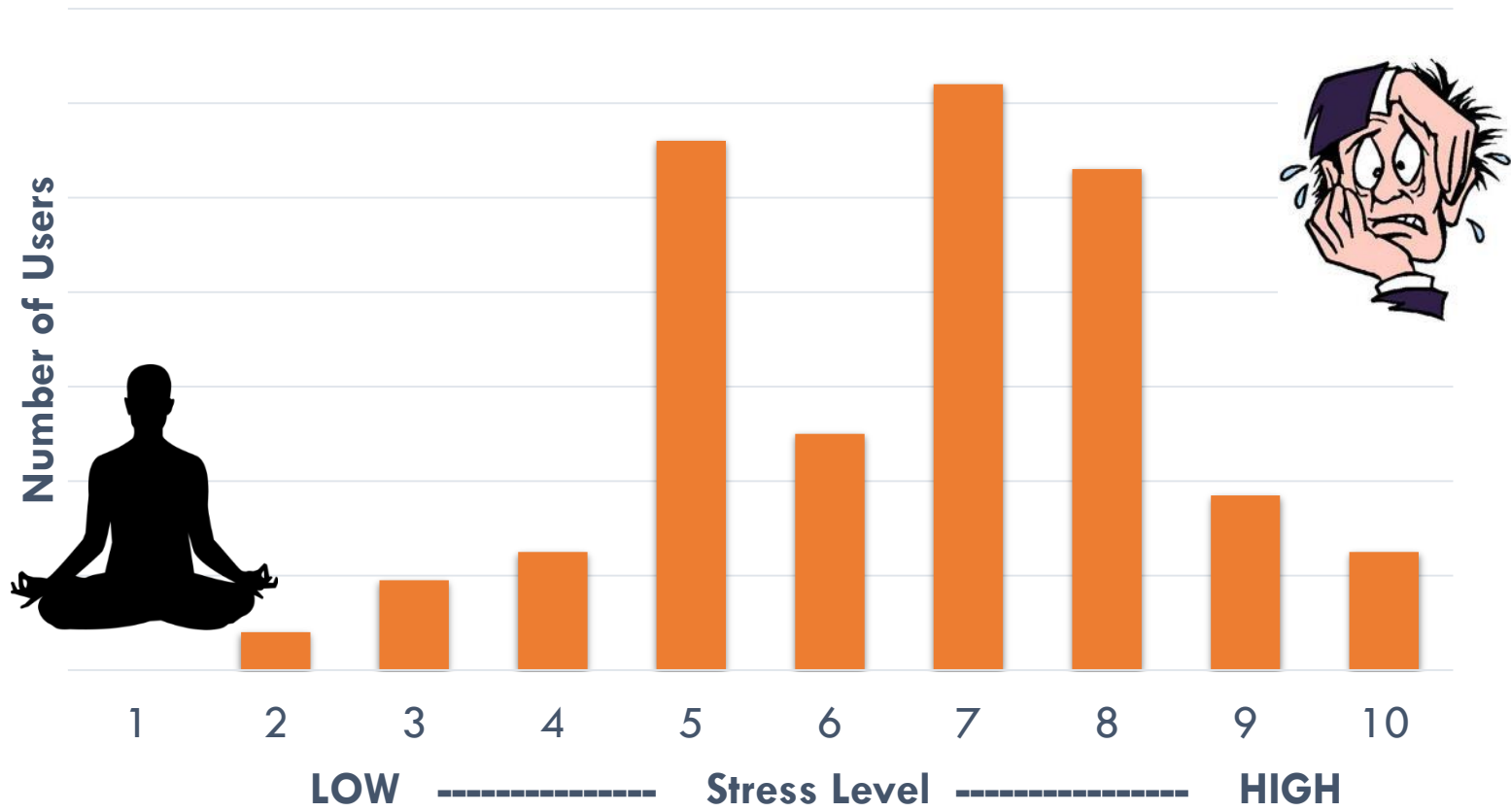
- Nicotine Patch
- Nicotine Gum
- Chantix
- Zyban
- None
- Other



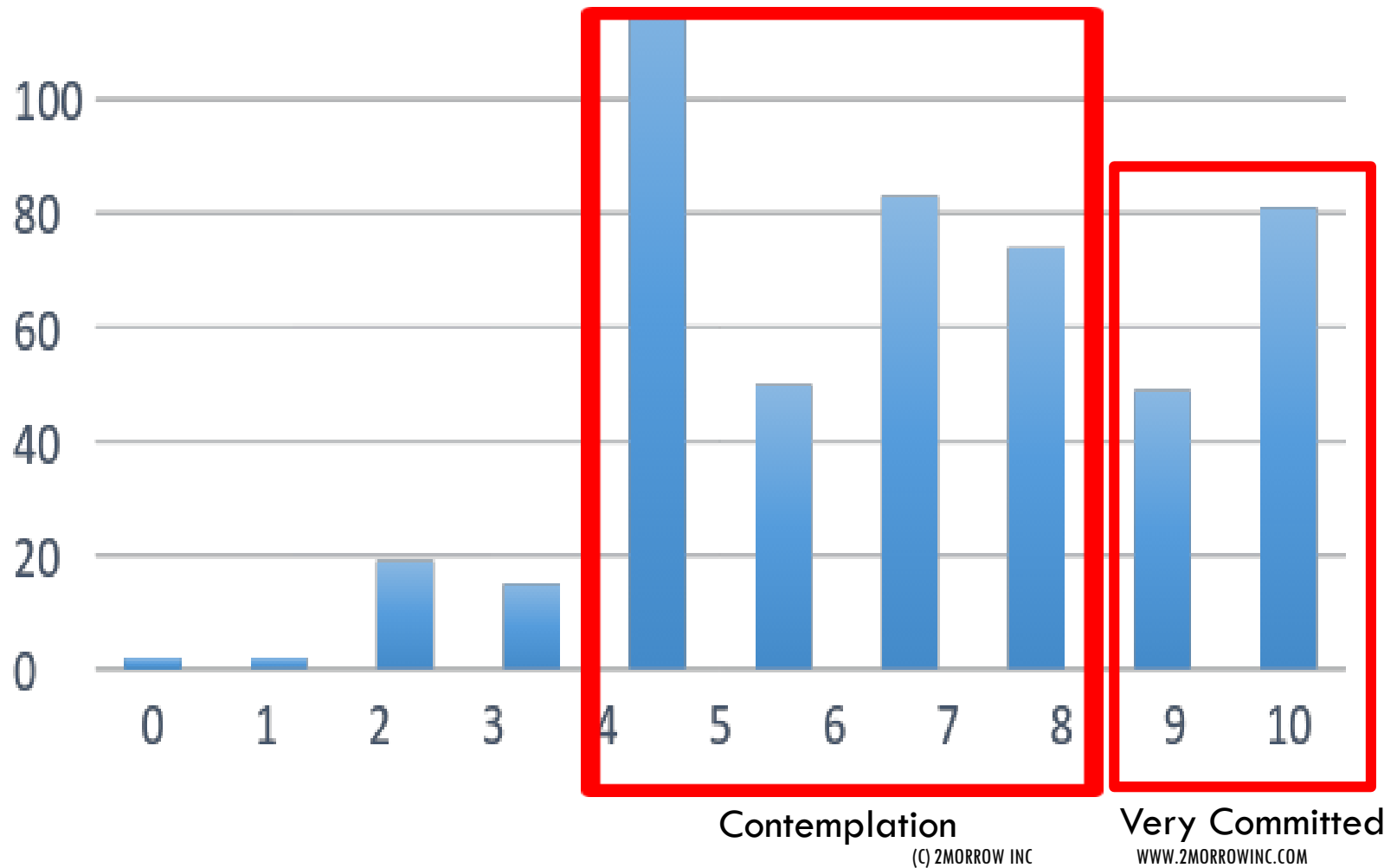
NUMBER OF CIGARETTES PER DAY



PARTICIPANT STRESS LEVELS



COMMITMENT LEVELS

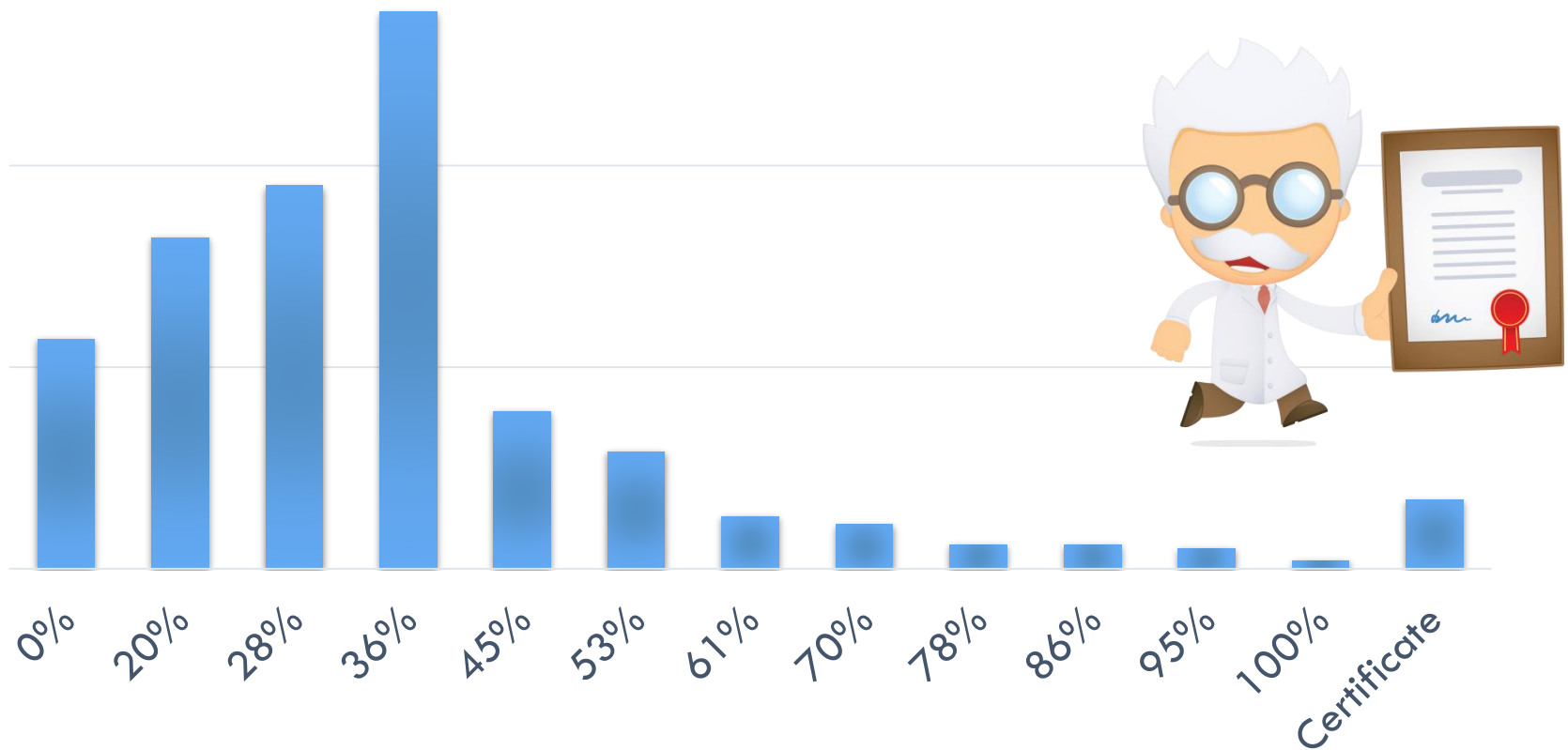


COMMITMENT LEVEL QUESTIONS

Questions:

- Should we restrict services to those are committed to quitting in 30 days?
- Is there value in teaching these skills before they are ready to quit?

PROGRAM PROGRESS (AS OF 7/31/15)



THINKING APPS?

TOP 10 THINGS TO CONSIDER

1. Credibility
2. Approach
3. Privacy
4. Security
5. Support
6. Platforms
7. User Satisfaction
8. Reporting / Data
9. Costs
10. Customization

RECAP — THE ROAD FORWARD

- The Realities
- The Pitfalls
- The Potential
- The Challenge





QUESTIONS?

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www.2MorrowInc.com

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360 236-3518

www.doh.wa.gov/SmartQuit



THANKS!

SmartQuit™

by 2Morrow

Program Elements

- Quit Plan
- 40+ Exercises & Tips
- Tracking
- Reminders
- Customized Messages
- Rewards
- Support
- Cert. of Completion

