



THE ONTARIO TOBACCO RESEARCH UNIT
UNITÉ DE RECHERCHE SUR LE TABAC DE L'ONTARIO

Generating knowledge for public health

Cheers and Fears of Vaping E-Cigarettes: Cutting Edge Research, Policy and Practice

Robert Schwartz, Shawn O'Connor, Lori Diemert, Cindy Baker-Barill

CPHA Annual Conference, Ottawa

May 2nd, 2019

Disclosure Statement

- We have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

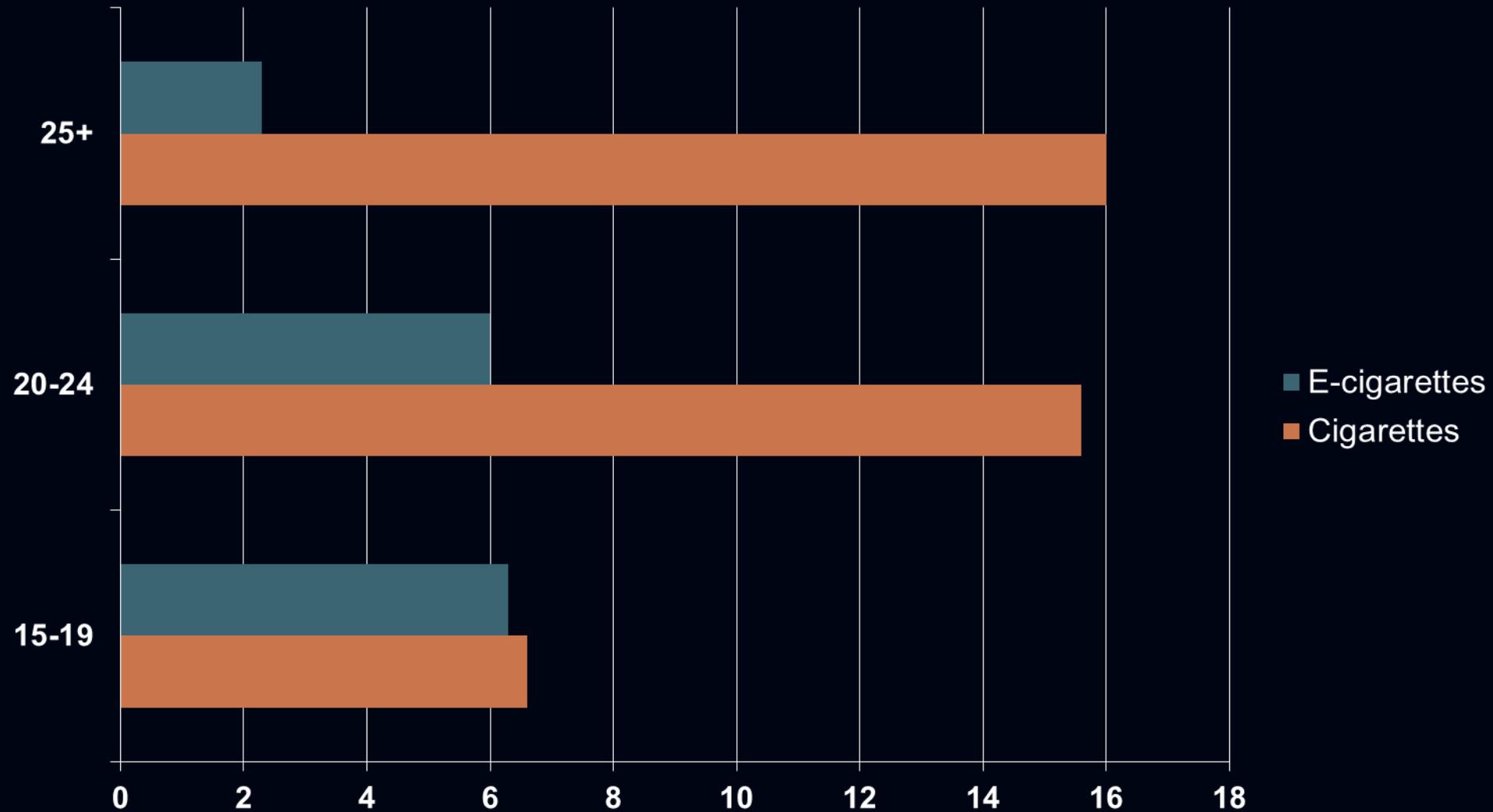
INTRODUCTION



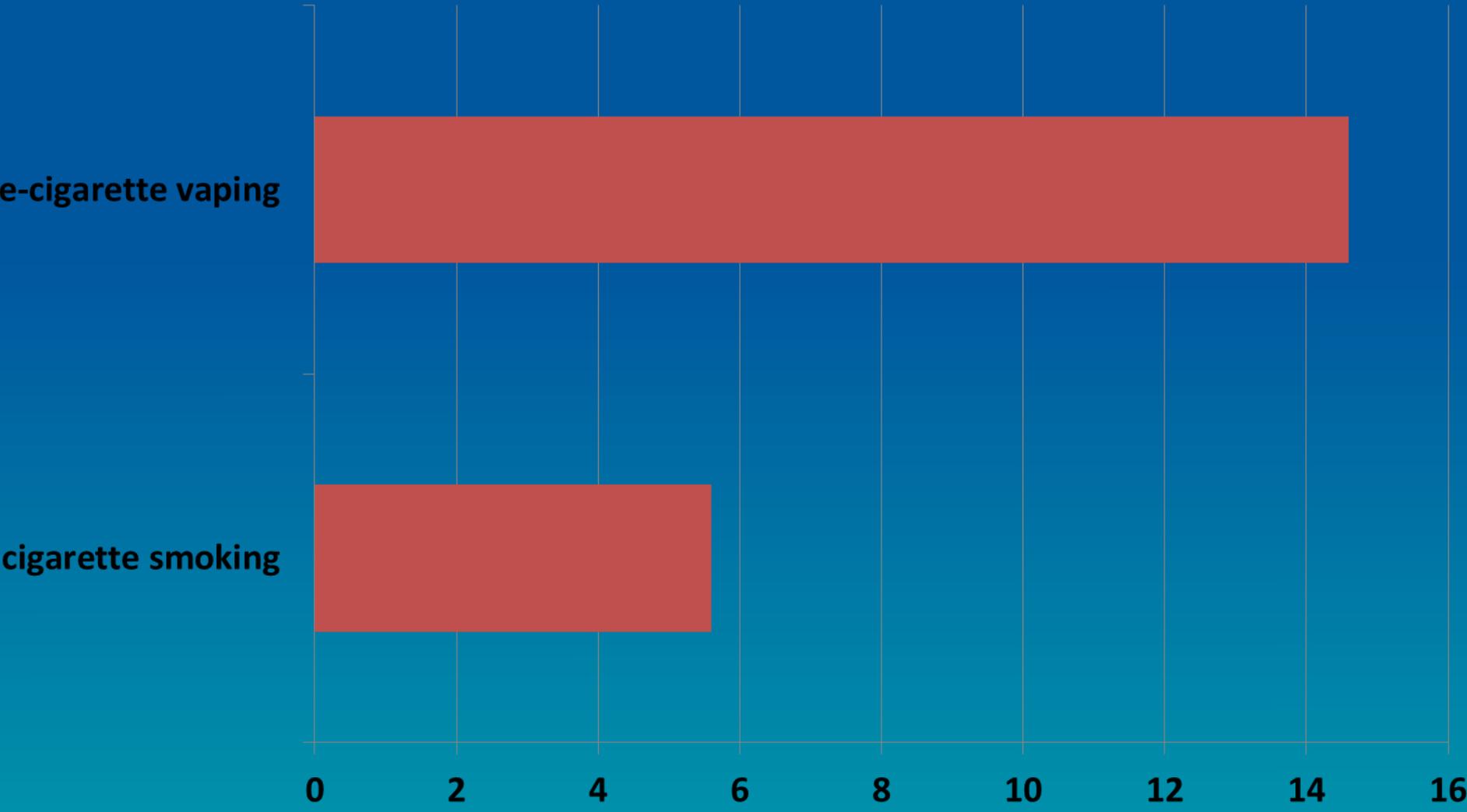
Policy Environment



Prevalence of past 30 day e-cigarette and cigarette use (CTADS 2017)

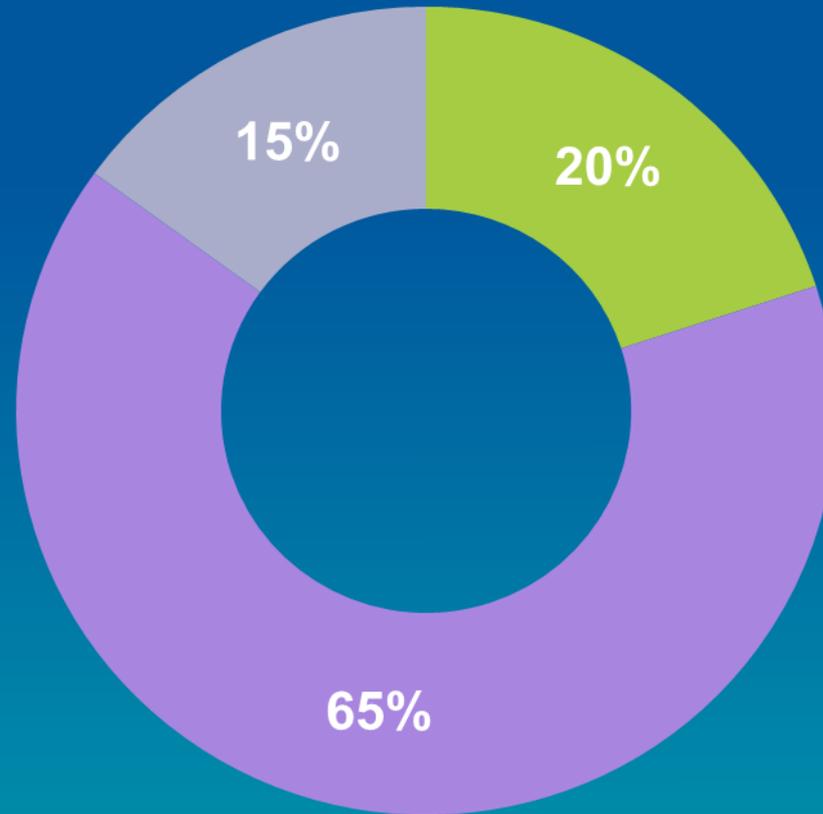


Prevalence of e-cigarette and cigarette use Grades 10-12 (CTADS)



Past 30 day vaping by smoking status (CTADS 2017)

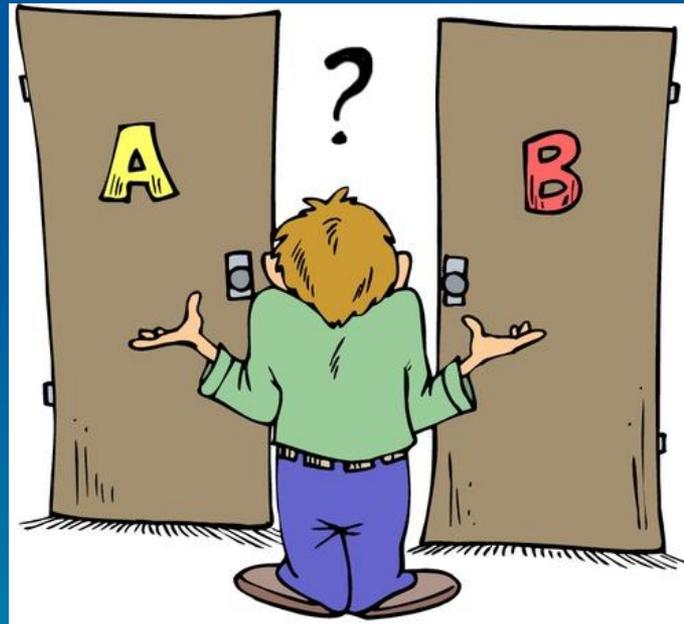
■ Former smokers ■ Current smokers ■ Never smokers





**MORAL
DILEMMA
AHEAD**

Can policy at the same time promote vaping as a cessation aid and prevent non-smokers from becoming long-term regular vapers?



ARE E-CIGARETTES EFFECTIVE CESSATION AIDS?



Conclusively:

The evidence to date is inconclusive!

Policy Options

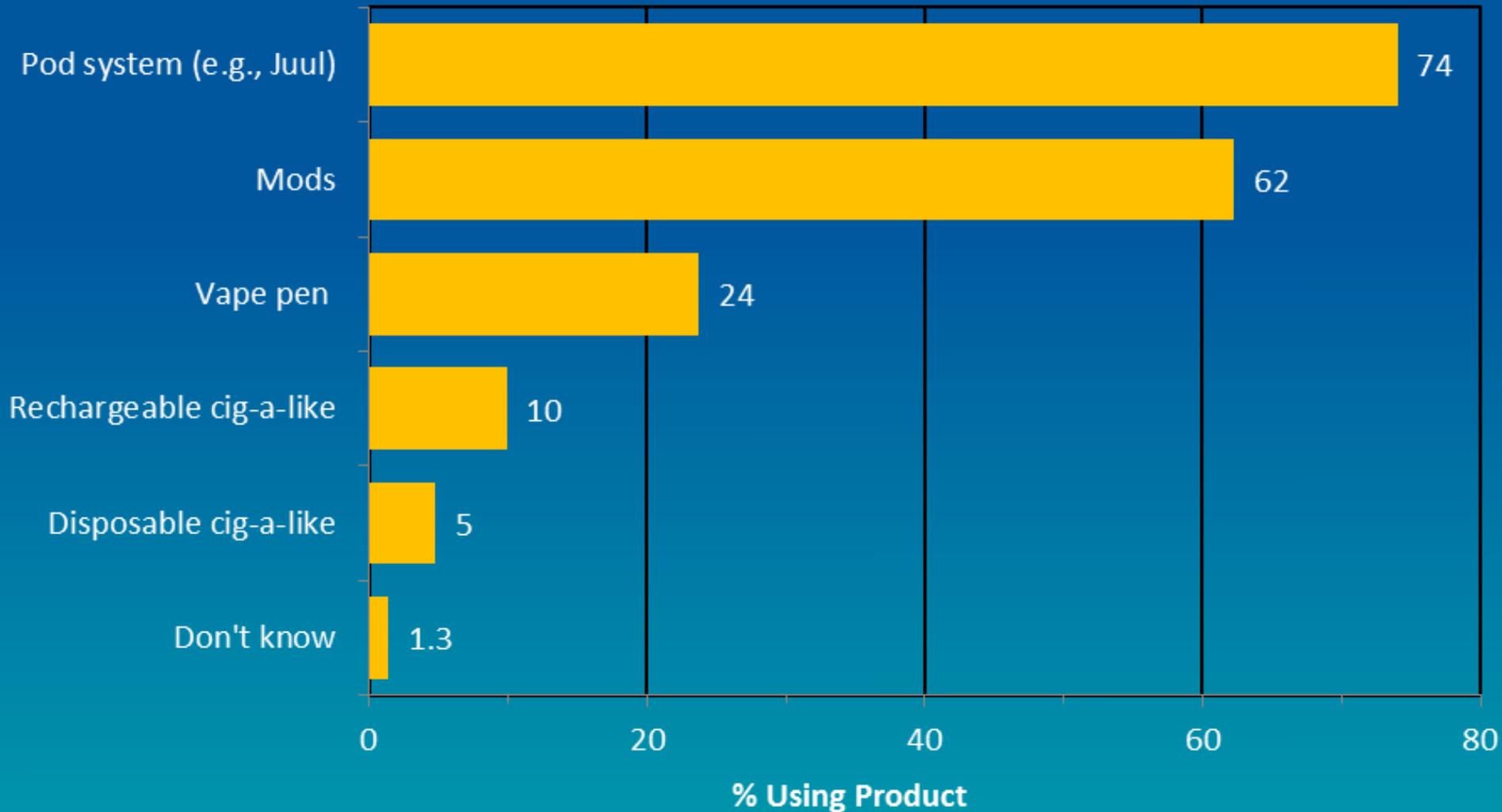
Policy Option	Status
Regulate to decrease safety and health risks	
Regulate to assure nicotine delivery	
Ban all or most flavours	
Restrict to adults	V
Regulate promotion	?
Restrict to current smokers	
Ban vaping in public places	?
Complete ban on sale / use	

Shawn

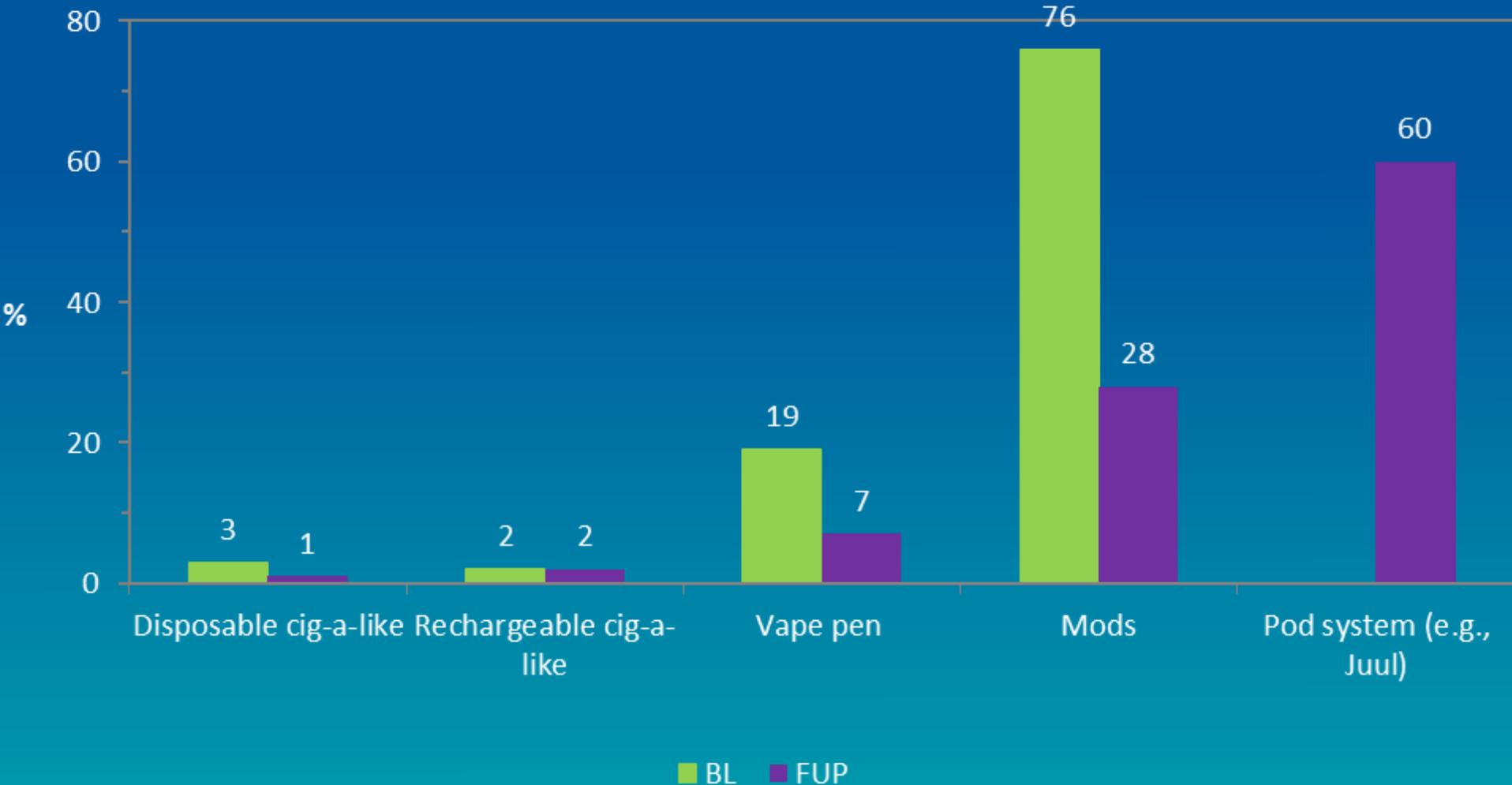
PROMOTION & ADVERTISING

Current Trends

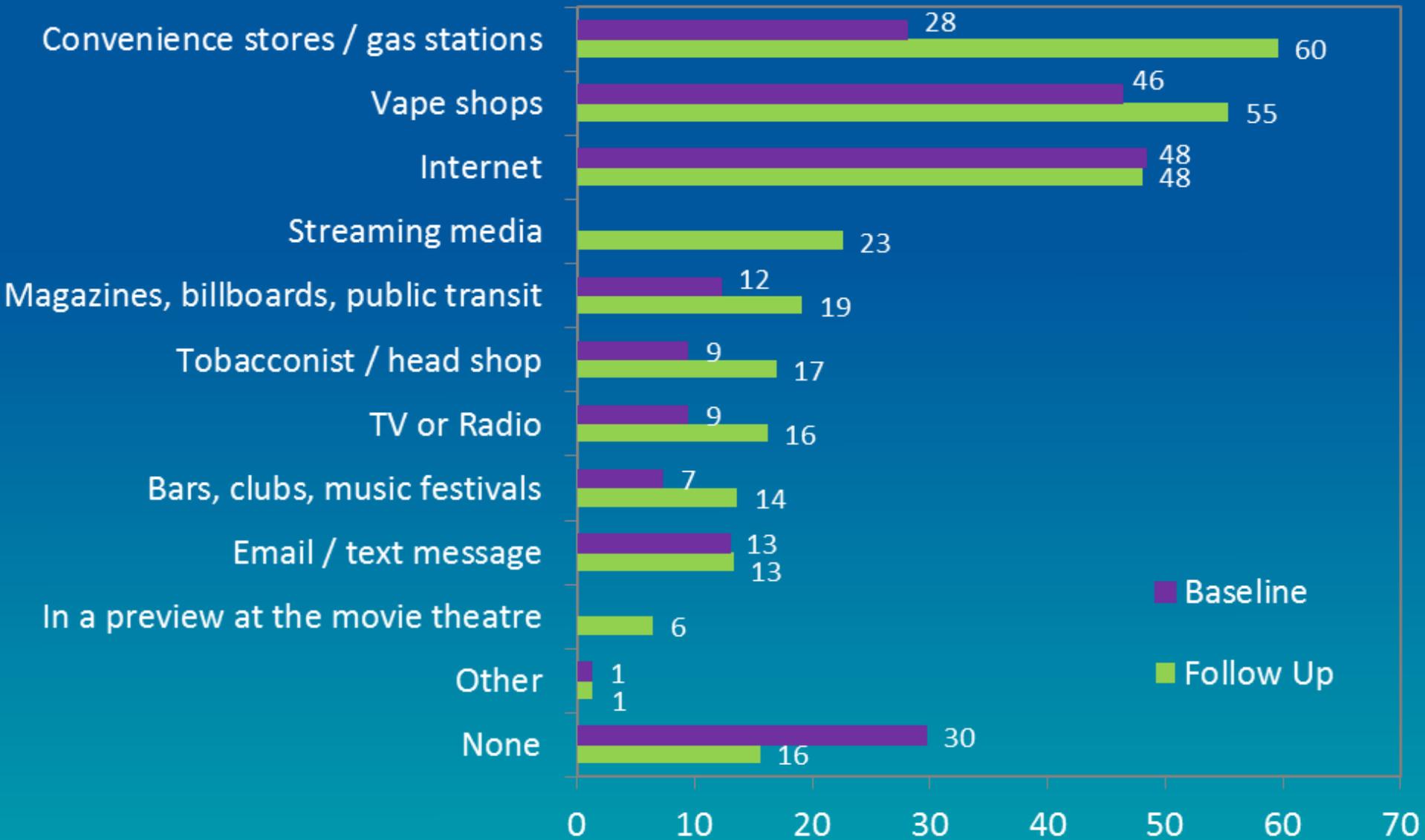
Type of Device Used in the Past 6 Months



Last Device Used, Regular YYA Vapers, BL/FU



YYA Exposure to Vaping Ads/Promotions, Past 30 Days



Point-of-Sale Study

To understand
the role of
products, place,
price and
promotion



Vape Shops: Cessation Clinics or Promoting Recreation?

- ▣ 23 vape shops in 5 cities; interviews in 13
- ▣ Sampling available (all 10), lounges (5), a bar with seating (5), social media presence (5) and provided mixed e-juices (3)

Cessation, Recreational or Dual Focus

Cessation Focus (3/13)

- Supportive, bright, clean, clinical environment
- 99% of customers are there for cessation; intentionally push others away
- Products tailored to needs of smokers trying to quit
- Commitment to helping smokers quit smoking and eventually vaping as well

Dual Focus (10/13)

- Fun store environment (interviewee designated or recreational activities available such as TVs, video games, lounges)
- Sell hobby oriented products (more power, big clouds, etc.)
- High % of customers identified as recreational vapers (70% +)

Point of Sale: Next Wave

A Changed Environment?

\$7.99
5-FOOT AUXILIARY CABLE
\$5.99

\$7.99
10-FT. UNIVERSAL MICRO USB CABLE
\$5.99

\$5.99
LIGHTNING USB CABLE
\$5.99

\$7.99
METALLIC 8-PIN USB CABLE
\$7.99

\$6.99

**WARNING: This product contains nicotine.
Nicotine is an addictive substance.
Use of nicotine during pregnancy may
harm the fetus.**

JUUL

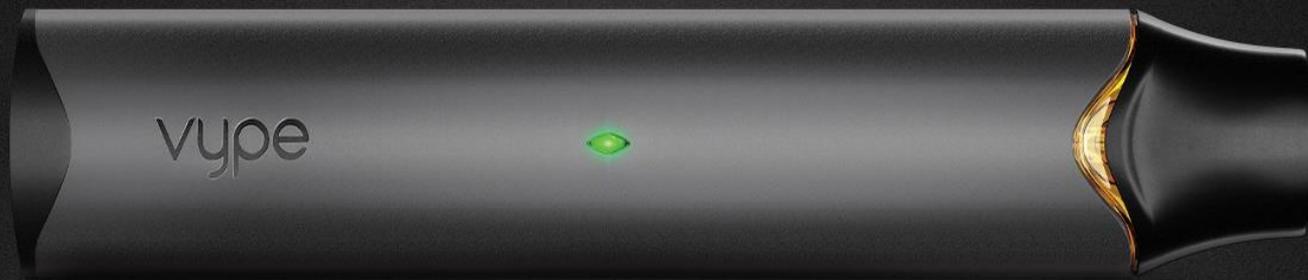


**MAKE
THE
SWITCH**

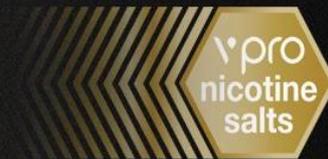
NOT FOR SALE TO MINORS



THE PERFECT PUFF IS HERE



THE NEW VYPE ePOD



May be harmful to health and contains nicotine which is addictive. Only adults 18/19+ based on province. Read leaflet in pack.

19+ CONTAINS NICOTINE

NEW

LOGIC COMPACT



ONE CLICK, ZERO
BUTTON VAPING.

logic.
VAPES

This product is intended to be used with nicotine. Nicotine is an addictive substance.



ePEN3

\$ 25.00

INCLUDES VAPING DEVICE AND 2 CARTRIDGES



CARTRIDGES

\$ 14.00

INCLUDES 2 CARTRIDGES



FIND OUT MORE AT GOVYPE.CA

Vype products may be harmful to health and contain nicotine which is addictive. VYPE PRODUCTS ARE NOT SUITABLE FOR USE BY: persons who are not adults; persons who are under the legal age to purchase vaping products; persons who are allergic/sensitive to nicotine; pregnant or breast-feeding women; persons who have been advised to avoid using tobacco or nicotine products for medical reasons; persons with reduced physical, sensory, mental capabilities or lack of experience/knowledge unless they are under supervision or have been given instructions concerning the use of the product by a person responsible for their safety; and persons with an unstable heart condition, severe hypertension or diabetes. Keep Vype products out of reach of children.



VYPE ePEN3
GENIUS!
CLICK & VAPE.



19+ VYPE PRODUCTS MAY BE HARMFUL TO HEALTH AND CONTAIN NICOTINE WHICH IS ADDICTIVE. ONLY FOR ADULTS WHO HAVE REACHED THE LEGAL AGE TO PURCHASE VAPING PRODUCTS. READ LEAFLET IN PACK. THE TRADEMARKS AND LOGOS DISPLAYED ARE TRADEMARKS OF THEIR RESPECTIVE OWNERS. ALL RIGHTS RESERVED.

AVAILABLE AT GOVYPE.CA



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AVAILABLE AT GOVYPE.CA



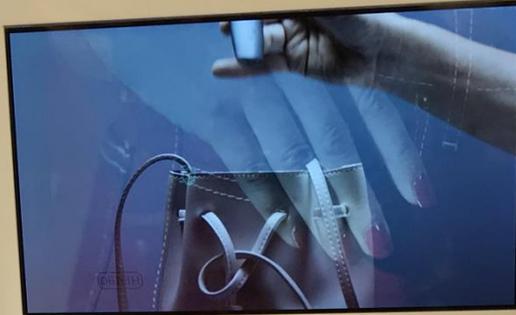
\$20

ATE

OS LOT



21



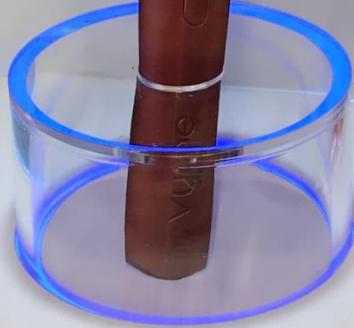
Vype

SWITCHING HAS NEVER BEEN EASIER.

NEW VYPE e-TANK PRO AND e-CIGARETTES



vype



vype



JUUL



 **Authorized Dealer**

Supreme



vype

VYPE OPEN 1

"HITS THE SPOT."

ALL TASTE, NO TAR.

19+



vype

VYPE OPEN 1

"HITS THE SPOT."

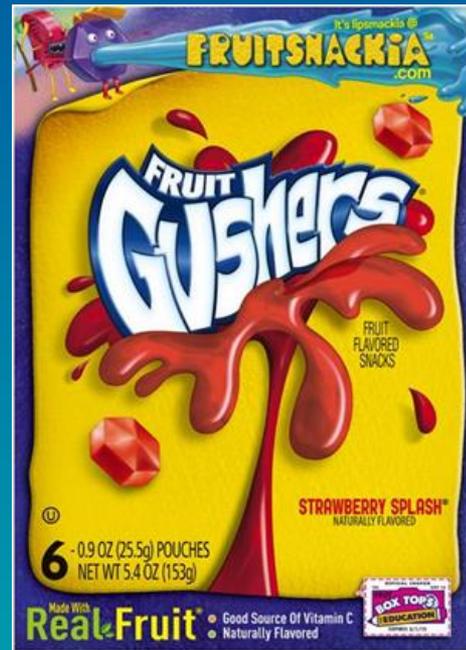
ALL TASTE, NO TAR.

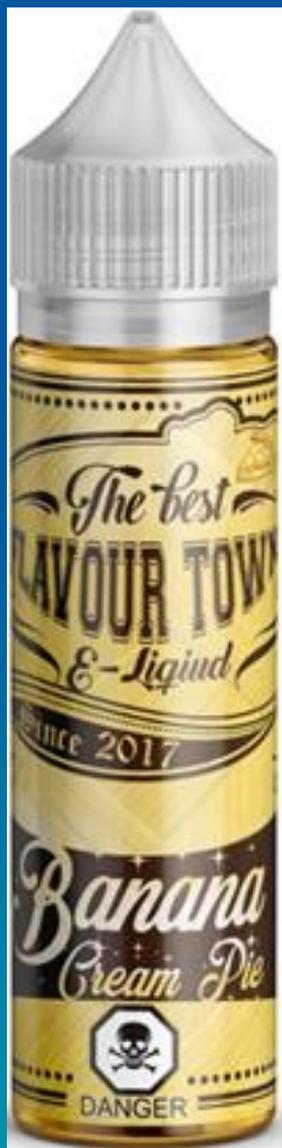
19+

Self service



Vaping Product Flavours





Google Top Searches

Query Topic	%
Purchase intent	61
How to	20
Cannabis	9
Health	7
Social Media	2
Regulation	0

Top Searches

All Topics

1	Vape stores near me
2	Vape store
3	Vape shop near me
4	Vaping
5	Dash Vapes
6	Vape pen
7	Vape shops near me
8	Vape juice
9	Vape Canada
10	Vape store near me
...	23% of all searches
20	Is vaping bad for you

Health Topic

1	Is vaping bad for you
2	Is vaping bad
3	Vaping health
4	Vaping vs smoking
5	Vaping side effects
6	Side effects of vaping
7	Popcorn lung vaping
8	Dangers of vaping
9	Does vaping cause cancer
10	Is vaping safe
	47% of all Health searches



SMALL GROUP WORK

1

1. What gains are you seeing from vaping?
2. What pains are you seeing from vaping?
3. Where are you seeing marketing and promotion?

Lori

WHAT HAPPENS TO SMOKERS WHO VAPE TO QUIT?

E-Cigarette Use for Smoking Cessation



E-Cigarette Effectiveness



Conclusion 17-1. Overall, there is **limited evidence** that e-cigarettes may be effective aids to promote smoking cessation.

Conclusion 17-2. There is **moderate evidence** from randomized controlled trials that e-cigarettes with nicotine are more effective than e-cigarettes without nicotine for smoking cessation.

Conclusion 17-3. There is **insufficient evidence** from randomized controlled trials about the effectiveness of e-cigarettes as cessation aids compared with no treatment or to Food and Drug Administration–approved smoking cessation treatments.

Concept Mapping Study

- A mixed methods, participatory approach to identify a framework of views and/or experiences of specific groups
- Participants complete:
 - Brainstorming
 - Sorting statements
 - Rate statements

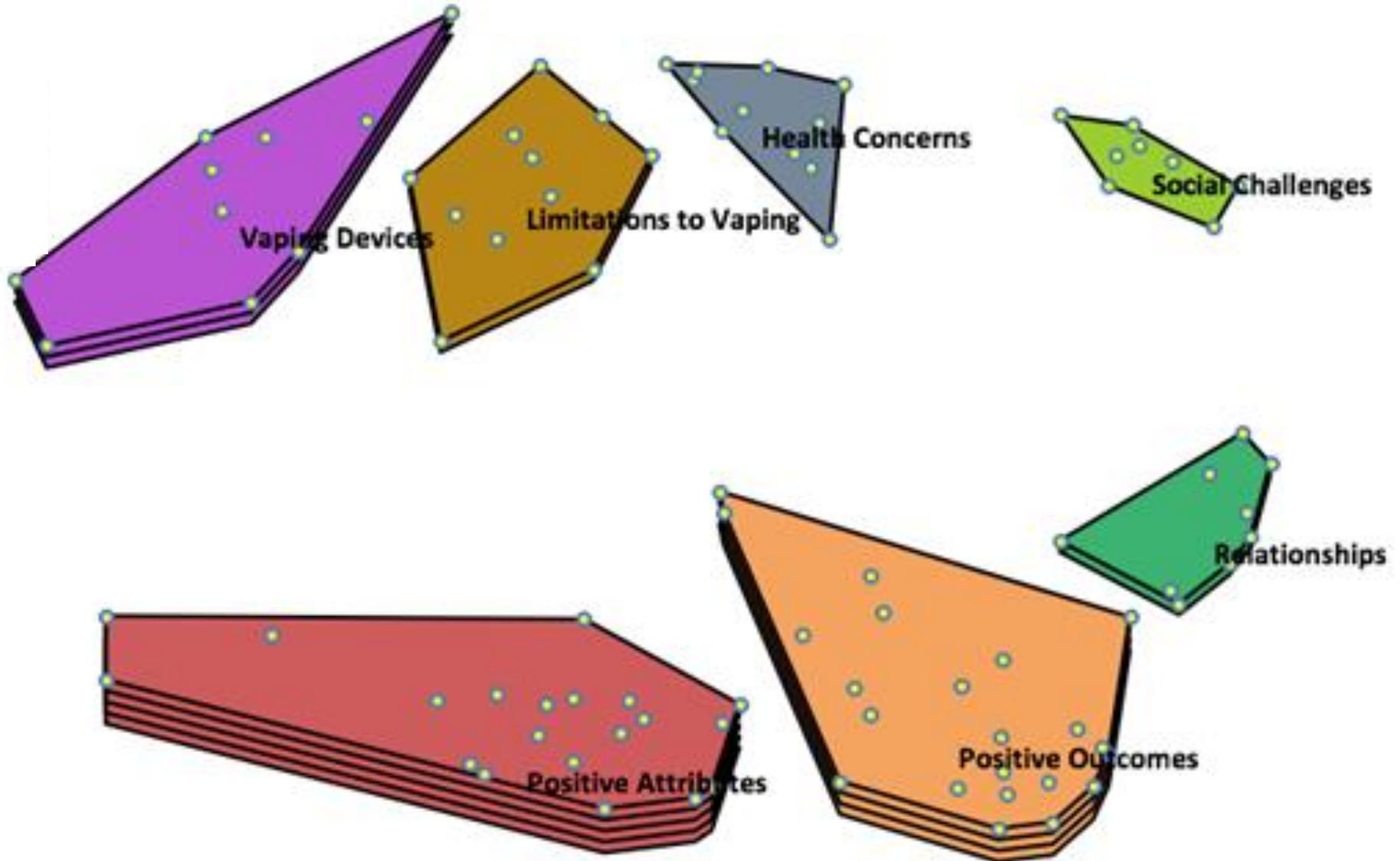
Concept Mapping Participants

- Mean age = 36 years; 60% female
- 31% with high school education or less
- 51% married / living with partner
- 44% self-reported that vaping helped them quit
- 35% were non-smokers at the time of the study

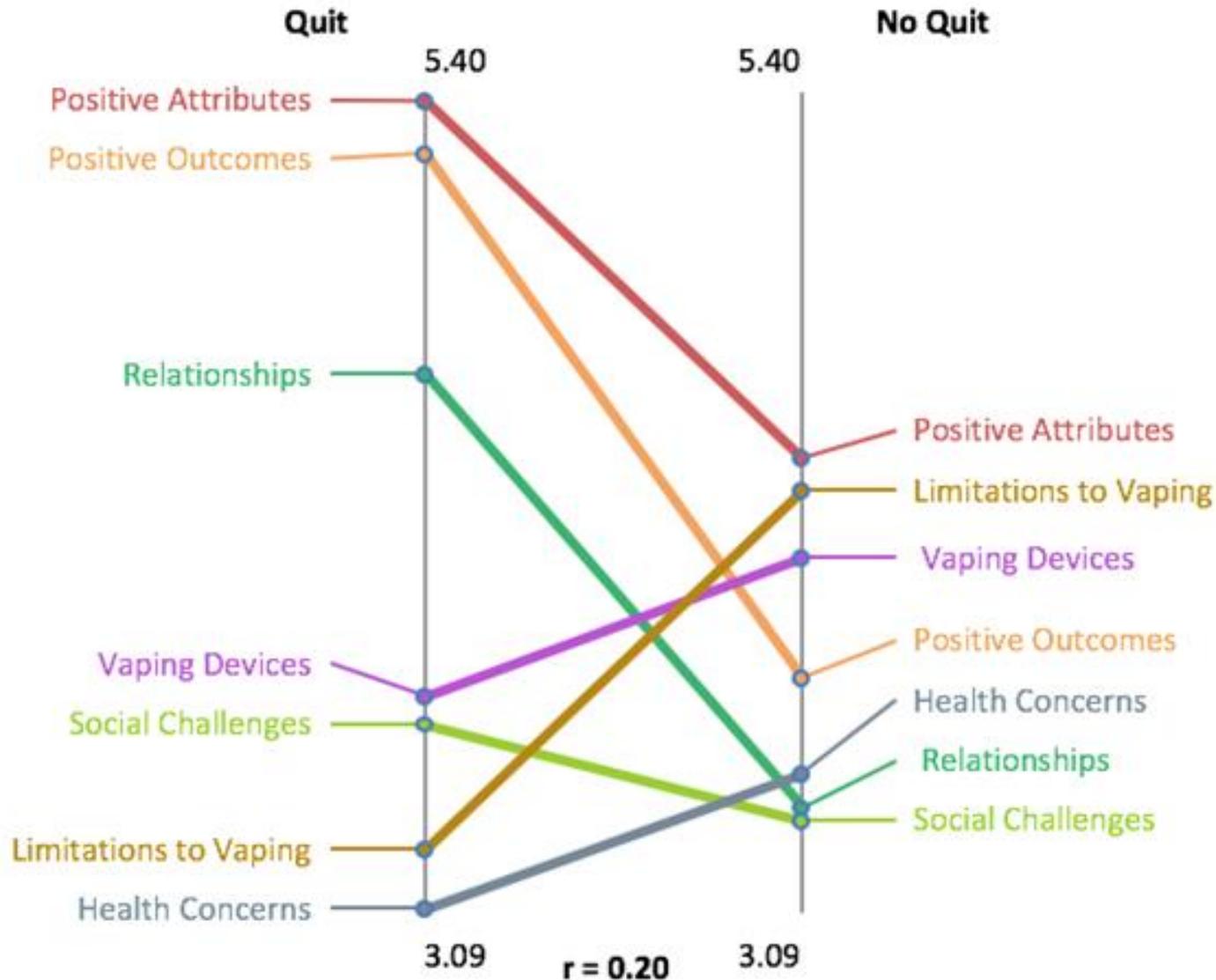
Focus Prompt

A specific experience I've had while using e-cigarettes for trying to quit smoking – either positive or negative – is...

Vaping to Quit Cluster Map



Pattern Match – by Perceived Success of Vaping to Quit Smoking



Survey of Smokers Who Have Tried Vaping to Quit

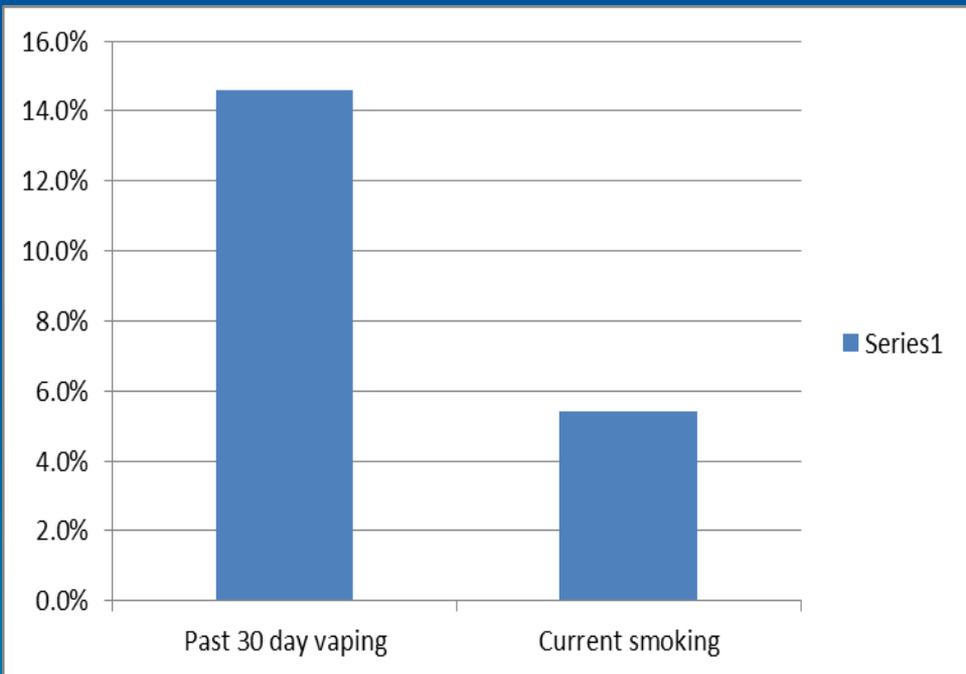


Rob

WHAT HAPPENS TO YOUNG VAPERS OVER TIME?

Do non-smokers become dependent long-term vapers?

GRADES 10-12, CSTADS 2016-17



*Conclusion 8-1. There is **substantial evidence** that e-cigarette use results in symptoms of dependence on e-cigarettes. NASEM 2018*

OTRU RECIGWP study of 600 regular vapers (age 16-24):

- 52% self-report being somewhat (40%) or very (12%) addicted to vaping,
- 58% do not intend to stop vaping
- 65% have already been vaping for more than a year.
- 63% are never smokers

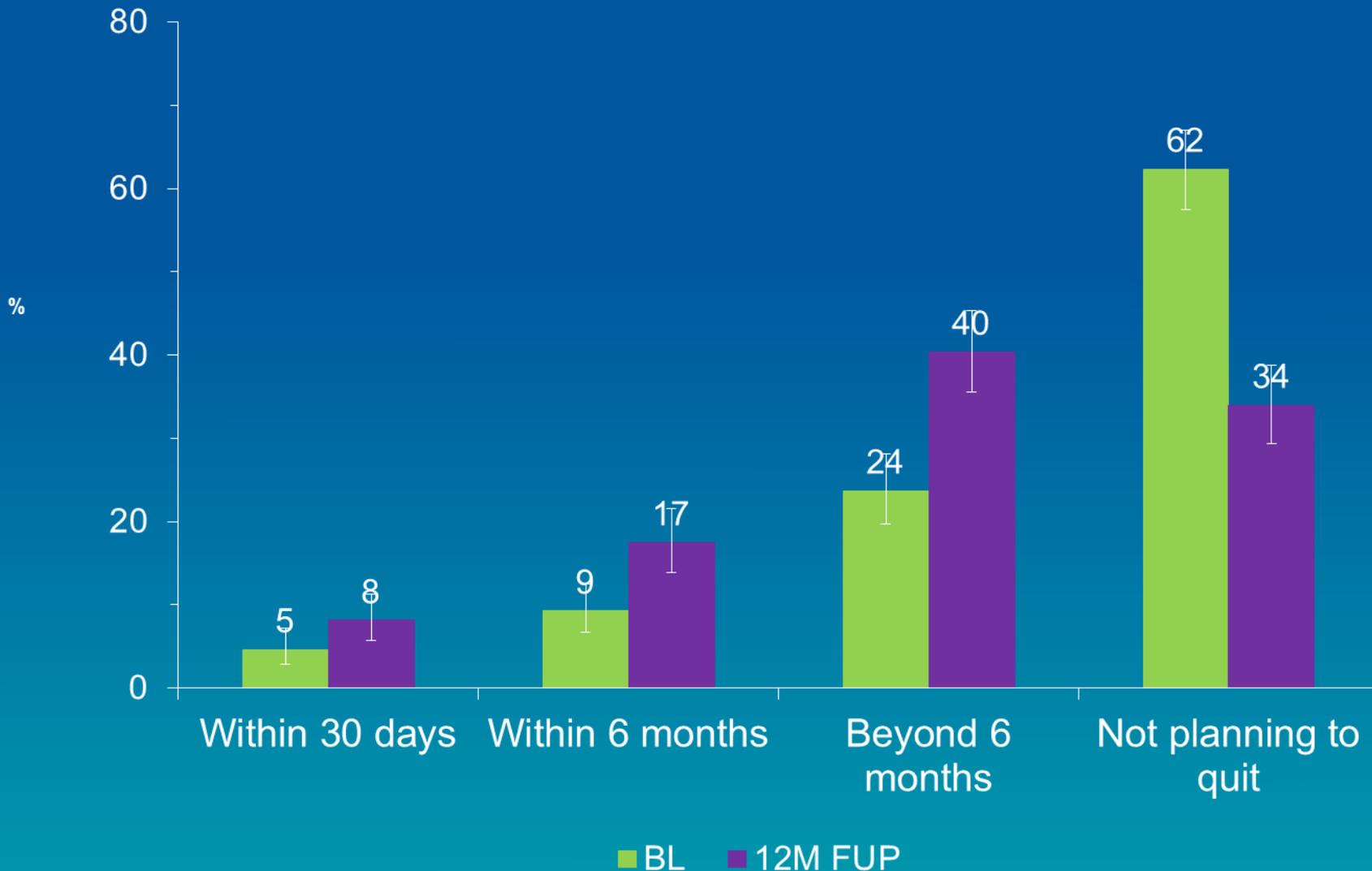
60%



57%



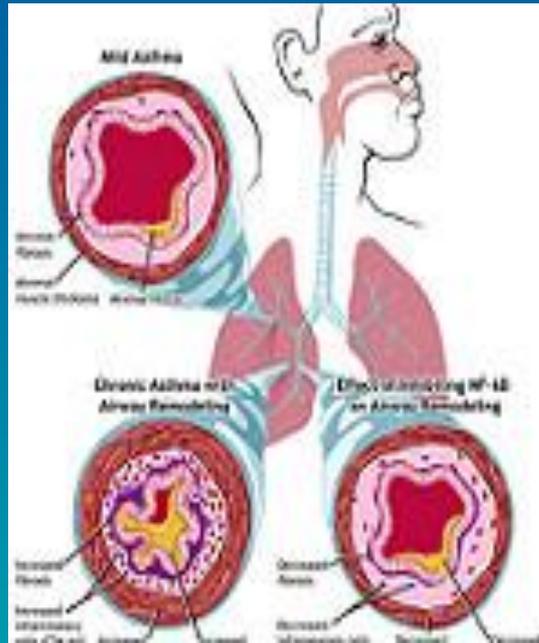
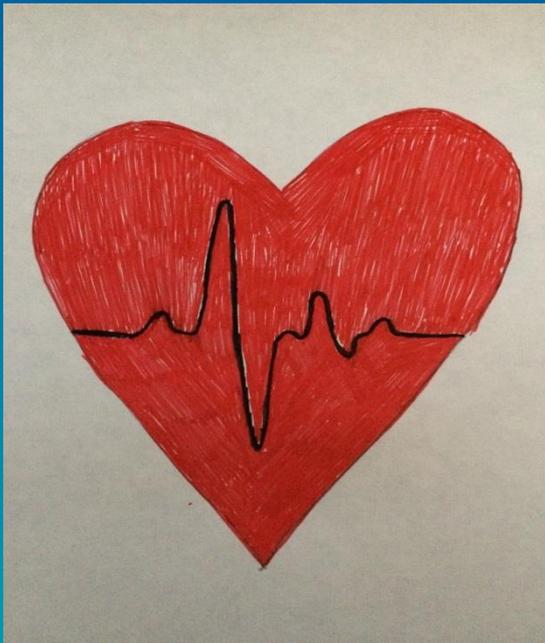
YYA Intention to Quit Vaping Among Regular Vapers (Baseline, 12M)



So what of long-term regular vaping

Vaping is not benign:

Potential health effects found in some studies include cardiovascular and respiratory disease; studies have also identified carcinogens in e-cigarette aerosol (NASEM).



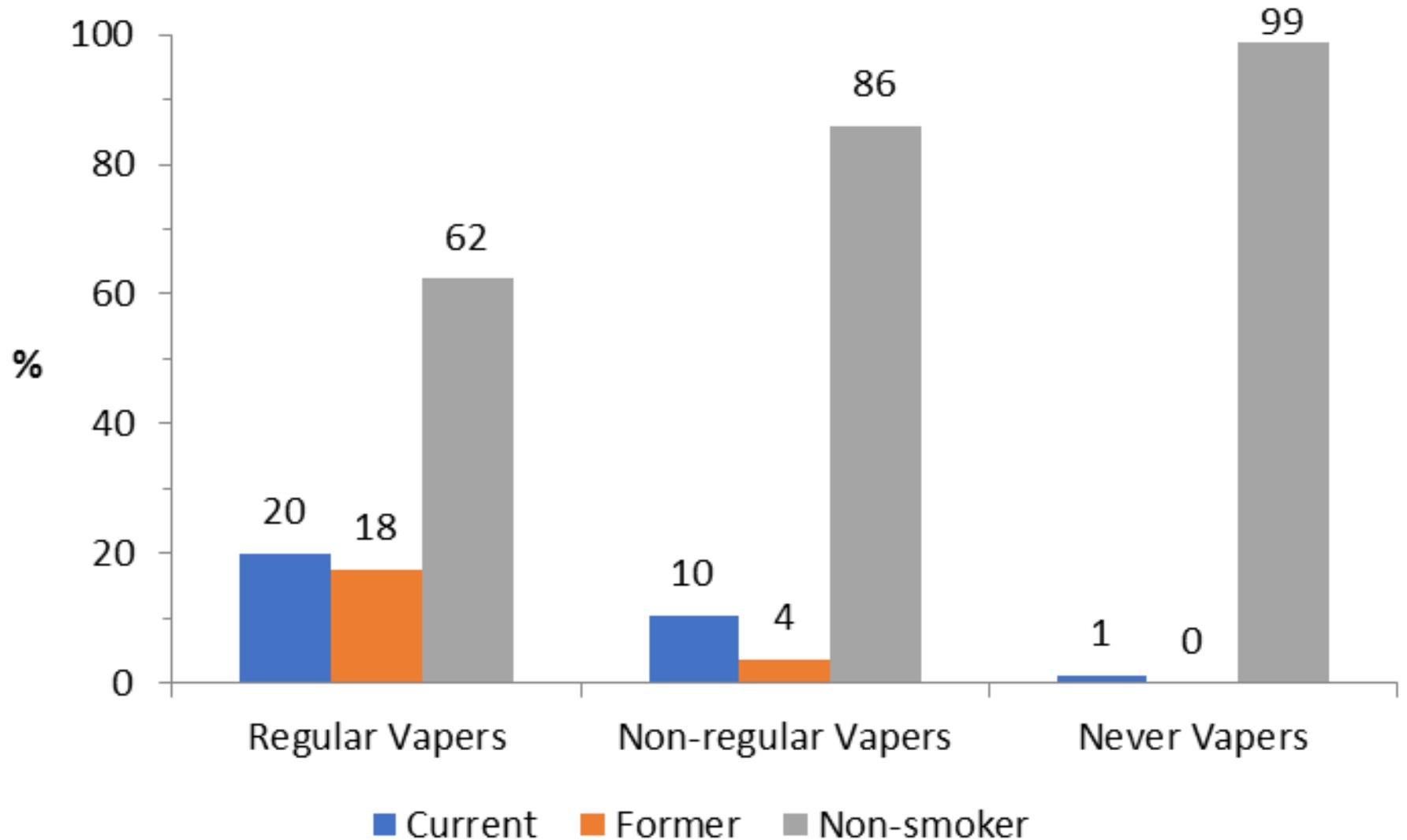
Amongst the potential health effects of vaping e-cigarettes for young people, respiratory symptoms are most likely to become evident early on. Symptoms of chronic bronchitis and asthma in young people have been associated with lung function decline amongst older people (Bernal et al., 1989; Vestbo and Lange, 2016 in NASEM p. 446)

*“There is **moderate evidence** for increased cough and wheeze in adolescents who use e-cigarettes and an association with e-cigarette use and an increase in asthma exacerbations.”*

NASEM



Vaping by Cigarette Smoking Status



Cindy

TAKING ACTION: POLICY & PRACTICE



Taking Action— Policy and Practice

Cindy Baker-Barill RN
Program Manager SMDHU Smoke-Free Program and Central East Tobacco Control Area Network
May 2, 2019
CPHA





**The Regional/Provincial
Perspective in Ontario**

Promotion





OTRU Report

Interventions to Prevent Harms from Vaping

Intervention Types

- School-Based Programming
- Community-Based Programming
- Public Education
- Health-Care Provider
- Aerosol-free Policies
- Age Restrictions
- Flavour Restrictions
- Advertising & Promotion Restrictions
- Labelling & Health Warnings
- Safety Requirements

PHU/TCAN Interventions

School Based

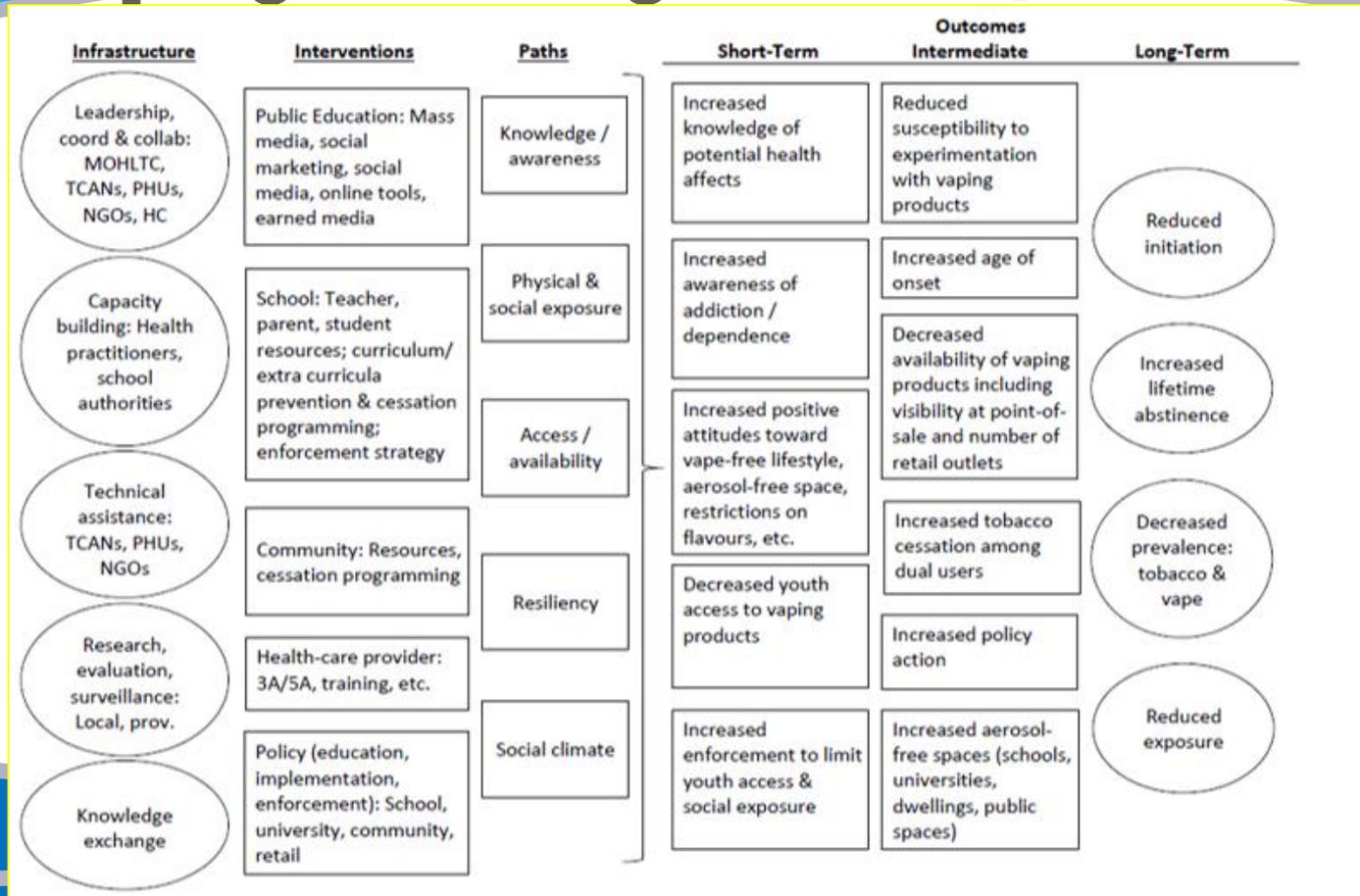
- ❖ Policy
- ❖ Curricular
- ❖ Student program/resources
- ❖ Parent resources
- ❖ School authority resources

- ❖ School authority toolkit

Public Education

- ❖ Internet / social media
- ❖ Mass media
- ❖ Posters / resources

Vaping Path Logic Model, Ontario



Policy/Bylaw Work



This resource has been developed to support Ontario's local governments in your efforts to build healthier communities by encouraging the implementation of policies and bylaws that strengthen the current provincial smoke and vapour-free legislation. This resource provides examples of how local governments can provide residents with greater protection from secondhand smoke and vapour than the minimum standards set by the Smoke-Free Ontario Act (SFOA), 2017. It also outlines the many benefits to the whole community.



Intervention Type	Knowledge from Existing Examples	Applicability to TCAN / PHU Activity
School-based Programming	Moderate	High
Community-based Programming	Low	High
Public Education	Moderate	High
Health Care Provider	Low	Moderate/High
Aerosol-free Policies	High	High (enforcement)
Age Restrictions	High	High (enforcement)
Flavour Restrictions	Low	?
Advertising & Promotion Restrictions	High	?
Labelling & Health Warnings	Moderate	Low
Safety Requirements	Moderate	Low

School-Based Interventions (6)

- **Stanford Medicine - The Tobacco Prevention Toolkit (MS, HS)**
- **CATCH My Breath Youth E-Cigarette Prevention Program (11-18)**
- **The Ontario Lung Association: The Talking about Series**
- **Scholastic: Get Smart About Tobacco - Health and Science Education Program (3-7)**
- **Scholastic: E-cigarettes-What you need to know: Teacher's Guide (6-12)**
- **Vaping and JUULING Lesson Plans (MS, HS)**
- **Minnesota School E-Cigarette Toolkit**

Stanford Medicine – The Tobacco Prevention Toolkit

Middle School and High School Curriculum:

Learning Objectives, PowerPoint class presentation, class activities, Quiz (that can be used as a before/after); and Discussion guides that can be assigned as take-home assignments.

Teacher Training:

Stanford offers in-person or webinar trainings to help people use the Toolkit.

Parent Resources:

Resources section that provides additional information and websites that are relevant to educators, parents, youth, and others who are interested.

Evaluation Tools:

Stanford is currently conducting a randomized control trial to evaluate the Toolkit. Early pre- and post- data show desired changes in knowledge, attitudes, and behaviors.



Stanford
MEDICINE

Tobacco Prevention Toolkit
Modules for tobacco and nicotine education



CATCH MY BREATH

Middle School and High School Curriculum:

Each session includes a lesson plan with learner outcomes, detailed directions and materials including Power Point presentations.

Teacher Training Webinar and Training Survey and Resources:

55 minute training webinar for educators, training survey and educator resource list

Parent Resources:

videos, tips/ fact sheets, Pinterest site, parent/community educational presentation

Evaluation Tools:

Student Pre and Post Surveys and Teacher Feedback Survey

Policy Guides for Schools



A photograph of three vaping devices on a yellow background. On the left is a purple pen-style device. In the center and right are two more complex devices, one blue and one silver. A white vapor plume is visible in the background. A black and yellow hazard symbol is in the top left corner. A black text box is overlaid on the bottom left.

Consider the Consequences of Vaping

Next Steps

“To accomplish this [goal], a coordinated and planned strategy will be vital to this work”

(OTRU p.24, 2019)

Cindy.Baker-Barill@smdhu.org

SMALL GROUP WORK

2



1. What are opportunities for interventions to prevent harms from vaping?
2. What are challenges of implementing such interventions?
3. Outline at least one new intervention idea

Contact information

Robert.schwartz@utoronto.ca

Shawn.oconnor@camh.ca

Lori.diemert@camh.ca

Cindy.Baker-Barill@smdhu.org

Website: www.otru.org

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