ΤΟ ΚΑΠΝΙΣΜΑ ΚΑΙ ΟΙ ΕΝΑΛΛΑΚΤΙΚΕΣ ΜΟΡΦΕΣ ΤΟΥ ΠΑΓΚΟΣΜΙΑ ΚΑΙ ΕΠΕΙΓΟΥΣΑ ΑΠΕΙΛΗ

Panagiotis Behrakis, MD PhD FCCP
Pulmonologist-Intensivist
Former Associate Professor of Athens University and Harvard School of Public Health
Director, Institute of Public Health - The American College of Greece
Head, National Group of Experts on Tobacco Control

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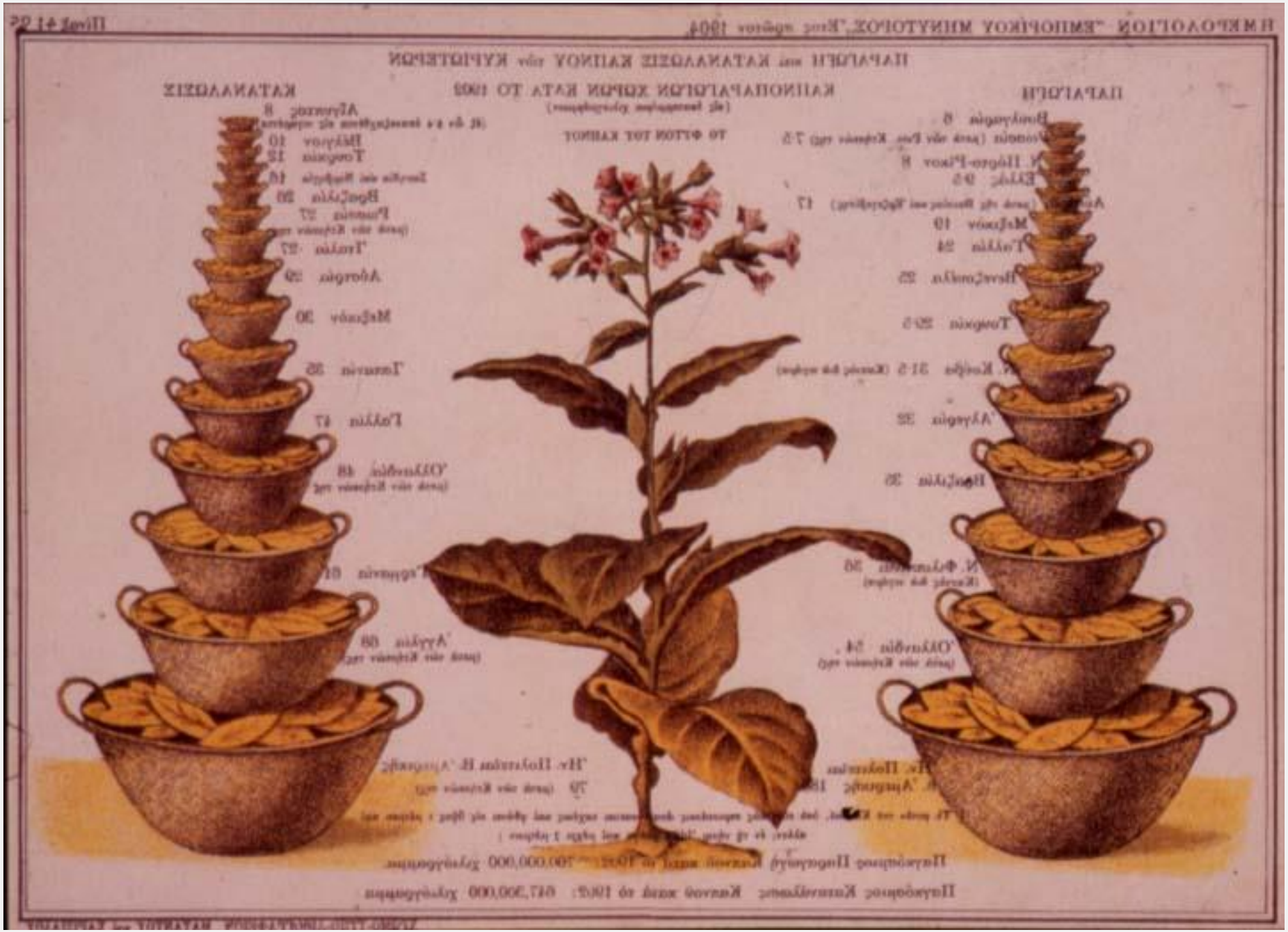
HELLENIC CANCER SOCIETY

SMOKE FREE GREECE

THE AMERICAN COLLEGE OF GREECE Pierce Deree Alba 1875

Institute of Public Health



ΤΟ ΚΑΠΝΙΣΜΑ

ΕΙΝΑΙ

Η ΜΕΓΑΛΥΤΕΡΗ ΕΠΙΔΗΜΙΑ

ΟΛΩΝ ΤΩΝ ΕΠΟΧΩΝ

Σύμφωνα με τον Π.Ο.Υ.

1,1 δισ. άνθρωποι καπνίζουν,
δηλαδή
το 1/3 του πληθυσμού της Γης

ΤΟ ΚΑΠΝΙΣΜΑ ΕΙΝΑΙ Η ΠΡΩΤΗ ΔΥΝΑΜΕΝΗ ΝΑ ΠΡΟΛΗΦΘΕΙ ΑΙΤΙΑ ΝΟΣΗΡΟΤΗΤΑΣ ΣΕ ΠΑΓΚΟΣΜΙΟ ΕΠΙΠΕΔΟ

Σήμερα, πεθαίνουν παγκοσμίως
πάνω από 8 εκ. άνθρωποι το χρόνο
από το κάπνισμα.
Δηλαδή, ένας άνθρωπος
κάθε 6 δευτερόλεπτα περίπου

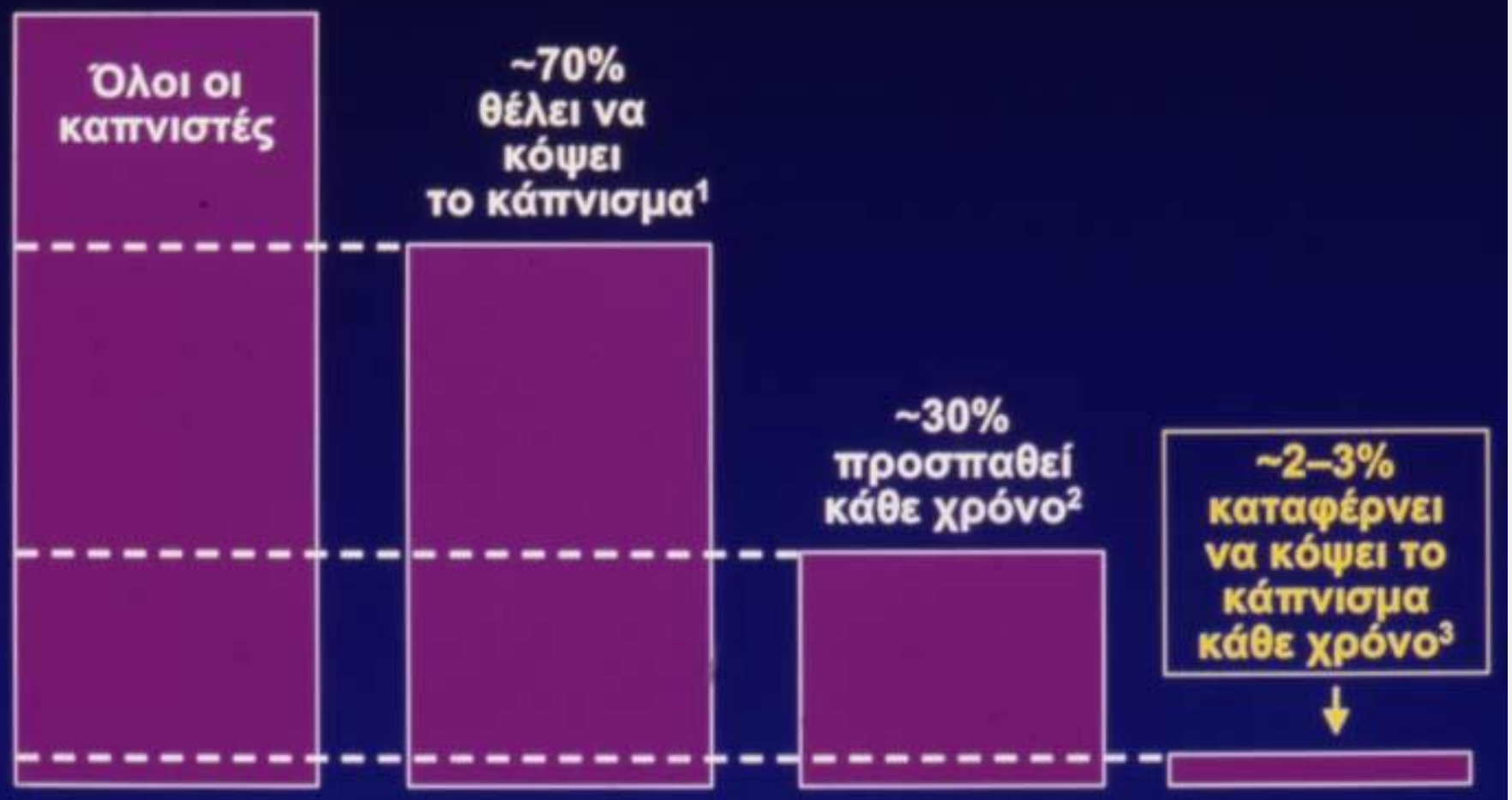
Ένας στους δύο ενήλικες καπνιστές
που δεν διέκοψε το κάπνισμα
θα πεθάνει από νόσημα
που προκλήθηκε από το κάπνισμα

Κάθε χρόνο, στην Ελλάδα,
θα πρέπει να «κατασκευάζονται» 50.000 νέοι καπνιστές
προκειμένου να συντηρούνται τα τεράστια οικονομικά συμφέροντα
του καπνεμπορίου

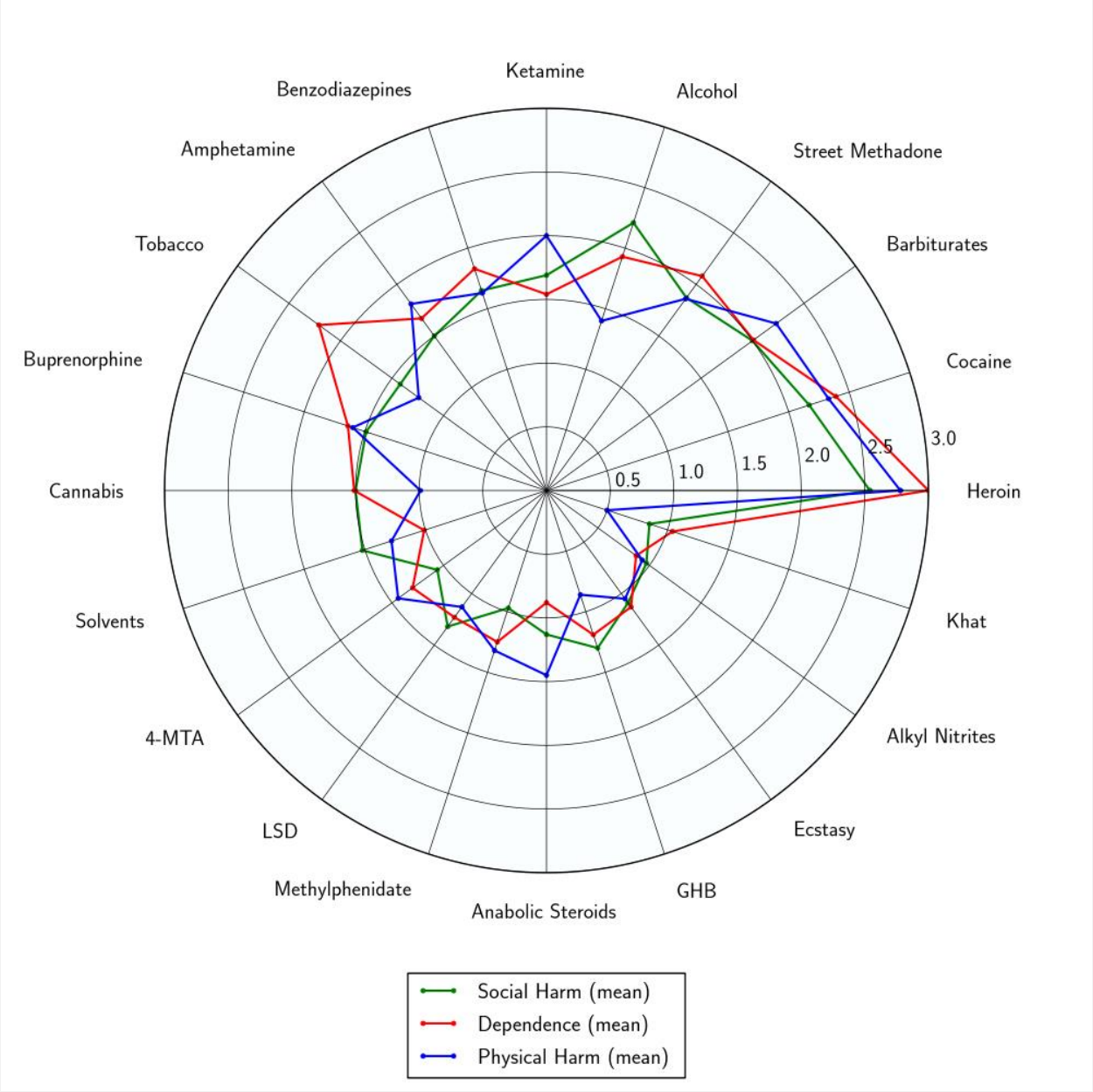
Η χρήση προϊόντων καπνού

- Δεν είναι συνήθεια
- Δεν είναι lifestyle
- Είναι νόσος
- Είναι εξάρτηση

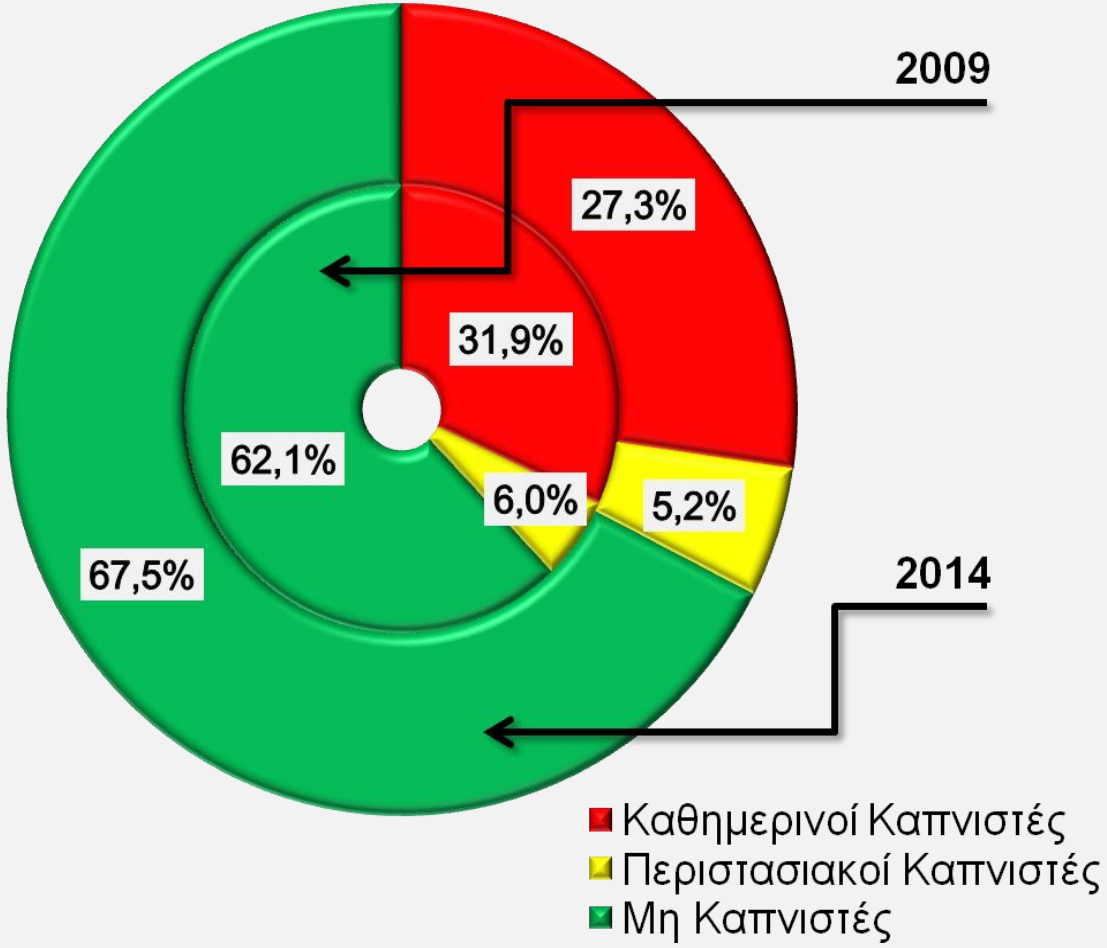
Η δύναμη του εθισμού



1. Bridgwood *et al*, General Household Survey 1998. 2. West, *Getting serious about stopping smoking* 1997. 3. Amsten, *Prim Psychiatry* 1998.


Ketamine
Alcohol
Street Methadone
Barbiturates
Cocaine
Heroin
Khat
Alkyl Nitrites
Ecstasy
GHB
Anabolic Steroids
Methylphenidate
LSD
4-MTA
Solvents
Cannabis
Buprenorphine
Tobacco
Amphetamine
Benzodiazepines
0.5
1.0
1.5
2.0
2.5
3.0
Social Harm (mean)
Dependence (mean)
Physical Harm (mean)

Κάπνισμα στην Ελλάδα 2009 – 2014



Πηγή: Ελληνική Στατιστική Αρχή

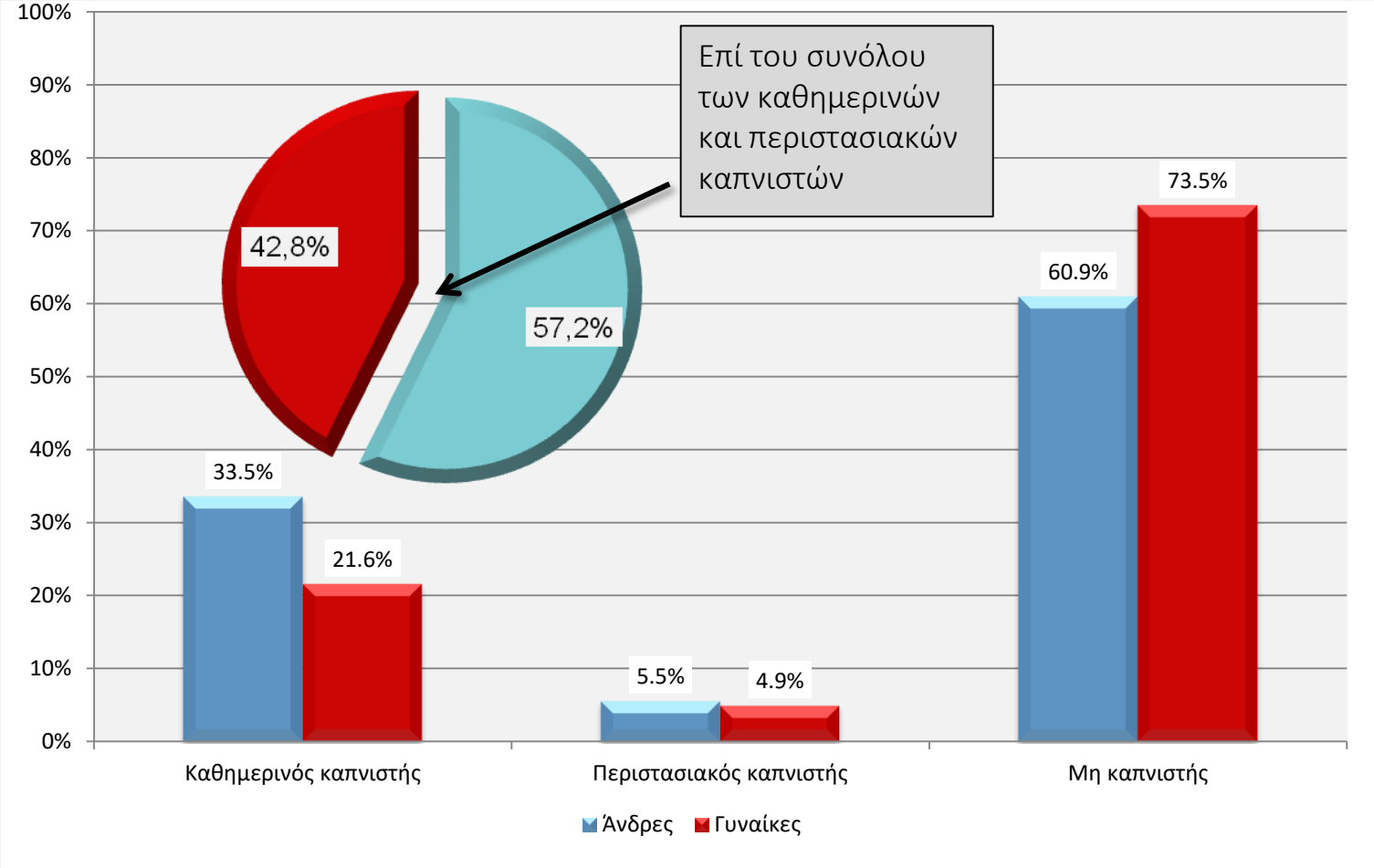
Συνολική μείωση καπνιστών

Καθημερινοί &Περιστασιακοί: ⬇14,2%

Καθημερινοί καπνιστές: ⬇14,4%

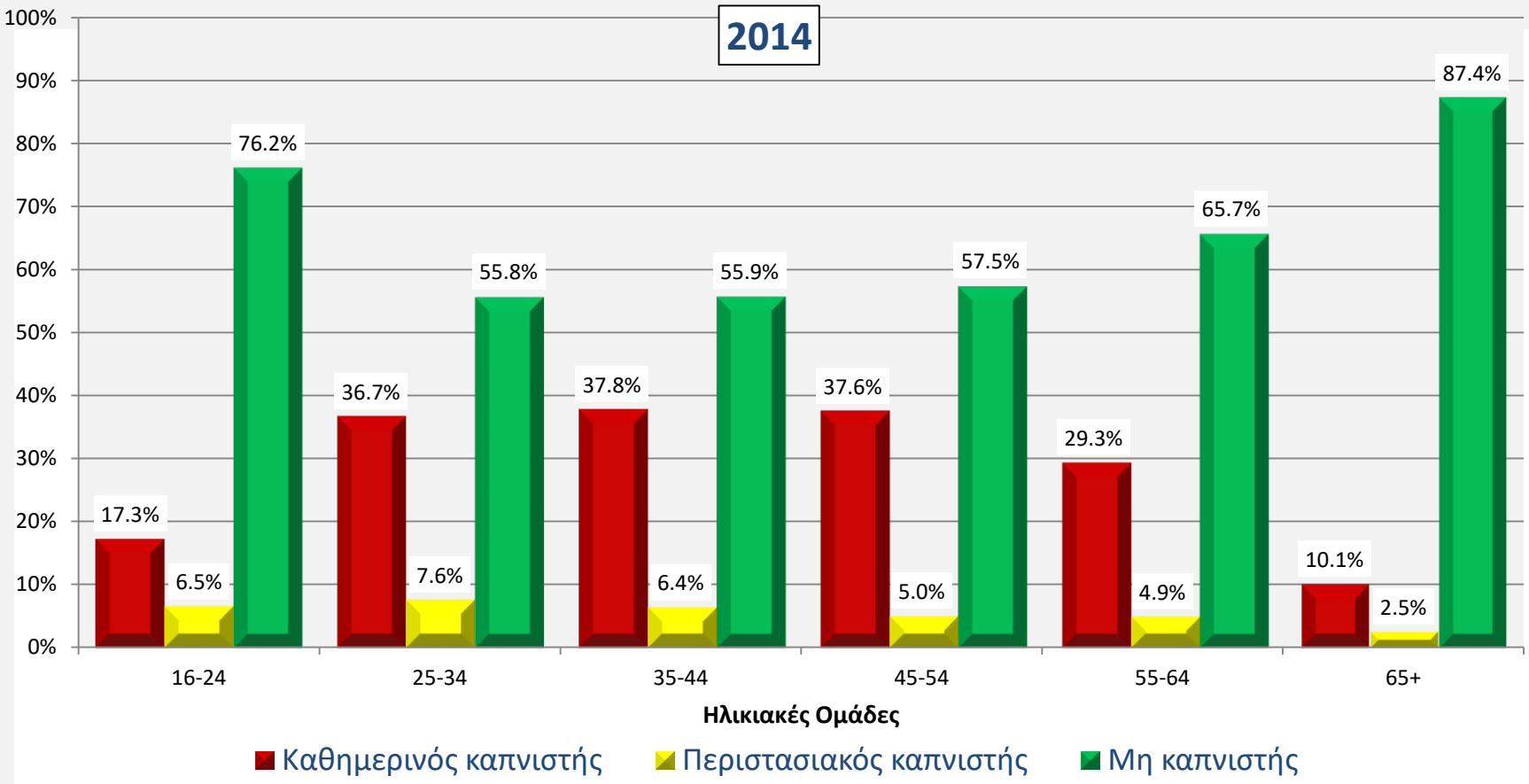
Περιστασιακών καπνιστές: 13,3%

Κάπνισμα στην Ελλάδα ανά φύλο 2014



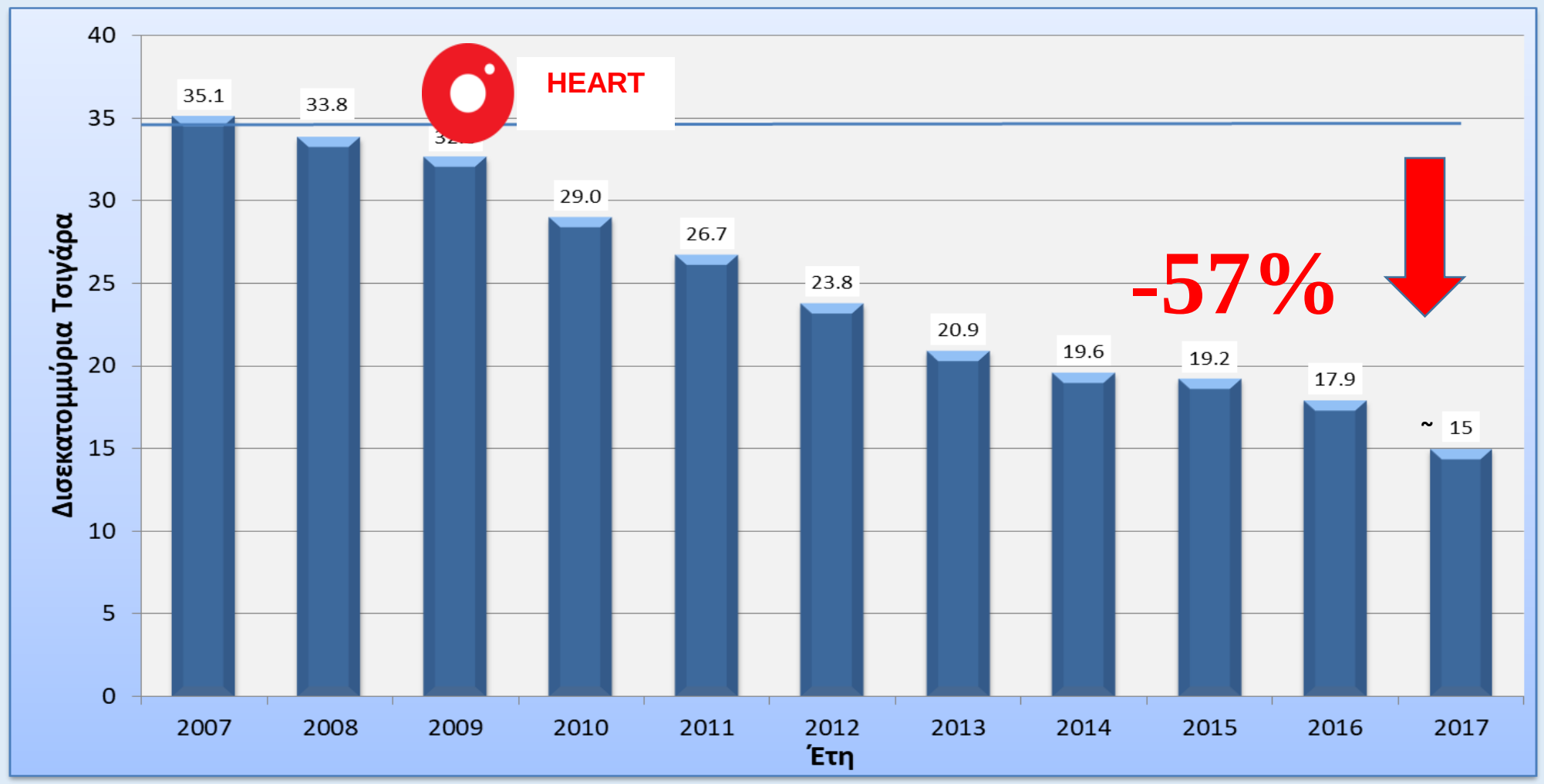
Πηγή: Ελληνική Στατιστική Αρχή

Ηλικιακή κατανομή καπνίσματος στην Ελλάδα 2014



Πηγή: Ελληνική Στατιστική Αρχή

Ετήσια Κατανάλωση Τσιγάρων στην Ελλάδα 2007-2017



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Pierce Deree Alba
1875

Institute of Public Health

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ

- 20% των εφήβων παγκοσμίως καπνίζουν
- 80.000-100.000 νέοι άνθρωποι ξεκινούν το κάπνισμα κάθε μέρα
- 80% των εφήβων παγκοσμίως εκτίθενται στο παθητικό κάπνισμα

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ
Ψυχολογική Συνιστώσα

- Επανάληψη στερεοτύπων
  - Ερεθισμός χειλιών
  - Στόματος
  - Κινήσεις χεριών
- Σύνδεση με ψυχολογικές διακυμάνσεις καθημερινότητας
- Μέσο επικοινωνίας & συναναστροφής στην διασκέδαση

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ ΣΤΗΝ ΕΥΡΩΠΗ

- 54% των εφήβων στην Ευρώπη
  έχουν δοκιμάσει να καπνίσουν έστω και μία φορά

- 28% κάπνισαν τουλάχιστον ένα τσιγάρο
  τις τελευταίες 30 ημέρες

- 2% κάπνισαν 1 πακέτο/ημέρα
  τις τελευταίες 30 ημέρες

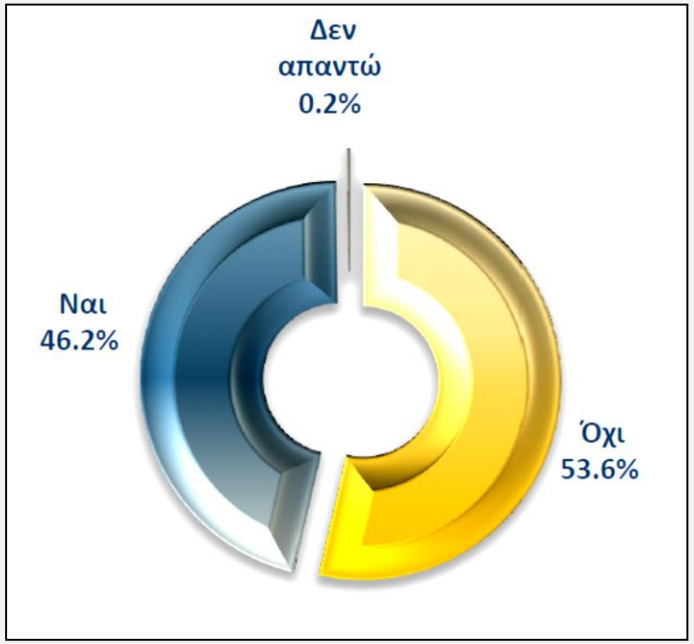
ESPAD

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ ΣΤΗΝ ΕΛΛΑΔΑ

- 46.2% των εφήβων στην Ελλάδα (Αθήνα, Θεσσαλονίκη) έχουν δοκιμάσει να καπνίσουν έστω και μία φορά
- 18.1% κάπνισαν τουλάχιστον ένα τσιγάρο τις τελευταίες 30 ημέρες
- 9.9% των καπνιστών κάπνισαν >20 τσιγάρα/ημέρα

ΕΡΕΥΝΑ ΤΟΥ 2014 ΣΤΑ ΠΛΑΙΣΙΑ ΤΟΥ ΠΡΟΓΡΑΜΜΑΤΟΣ HEART II

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ ΣΤΗΝ ΕΛΛΑΔΑ

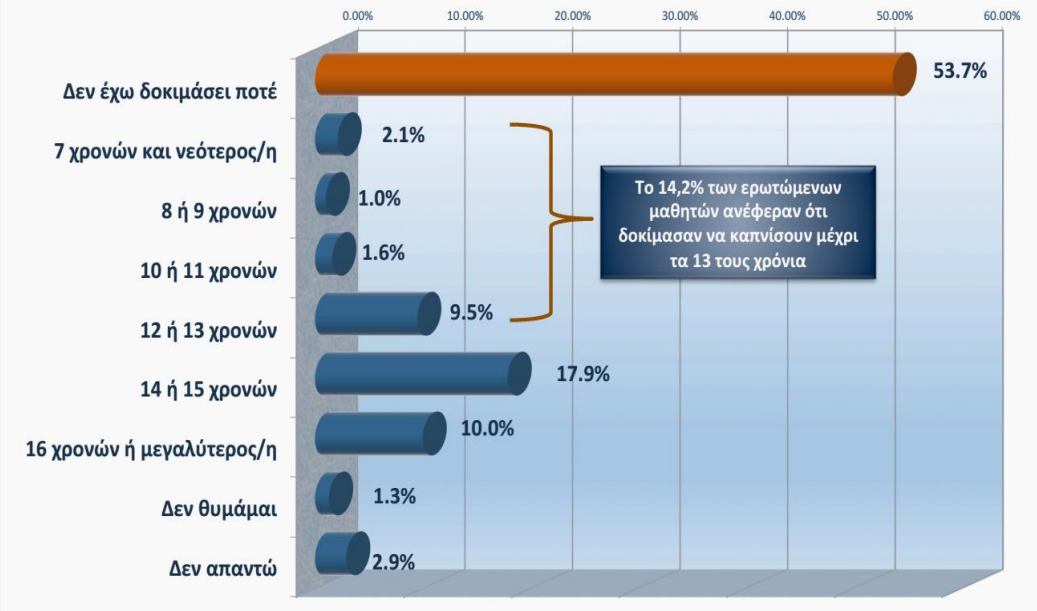


kaparesearch 2014

Ποσοστά μαθητών που αποκρίθηκαν θετικά ή αρνητικά στην ερώτηση:

Έχεις δοκιμάσει ποτέ να καπνίσεις τσιγάρο ή άλλο είδος καπνίσματος, έστω και μια ρουφηξιά;

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ ΣΤΗΝ ΕΛΛΑΔΑ

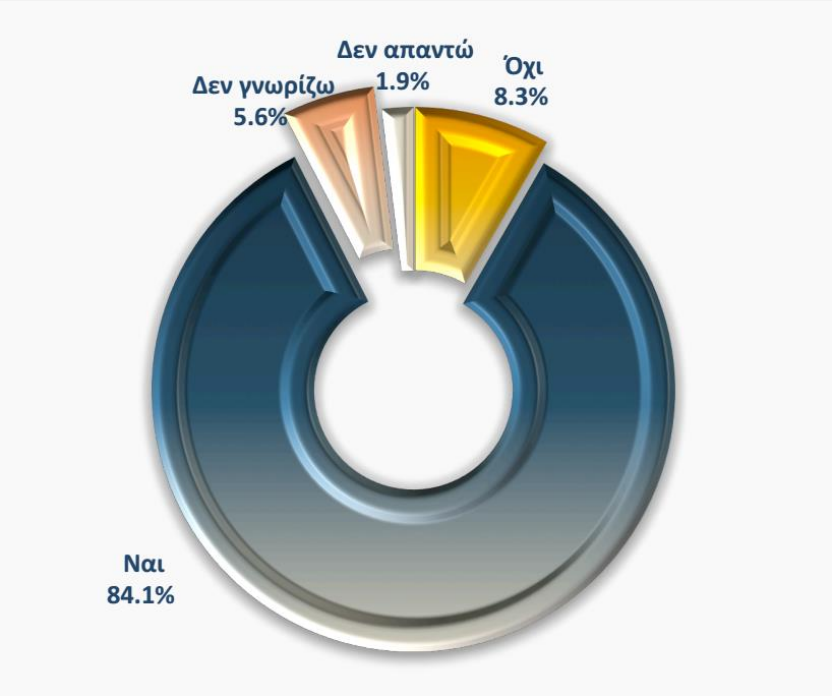


kaparesearch 2014

Πόσο χρονών ήσουν όταν δοκίμασες για πρώτη φορά να καπνίσεις;

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ ΣΤΗΝ ΕΛΛΑΔΑ

ΓΝΩΣΕΙΣ ΓΥΡΩ ΑΠΟ ΤΙΣ ΒΛΑΒΕΡΕΣ ΣΥΝΕΠΕΙΕΣ ΤΟΥ ΚΑΠΝΙΣΜΑΤΟΣ

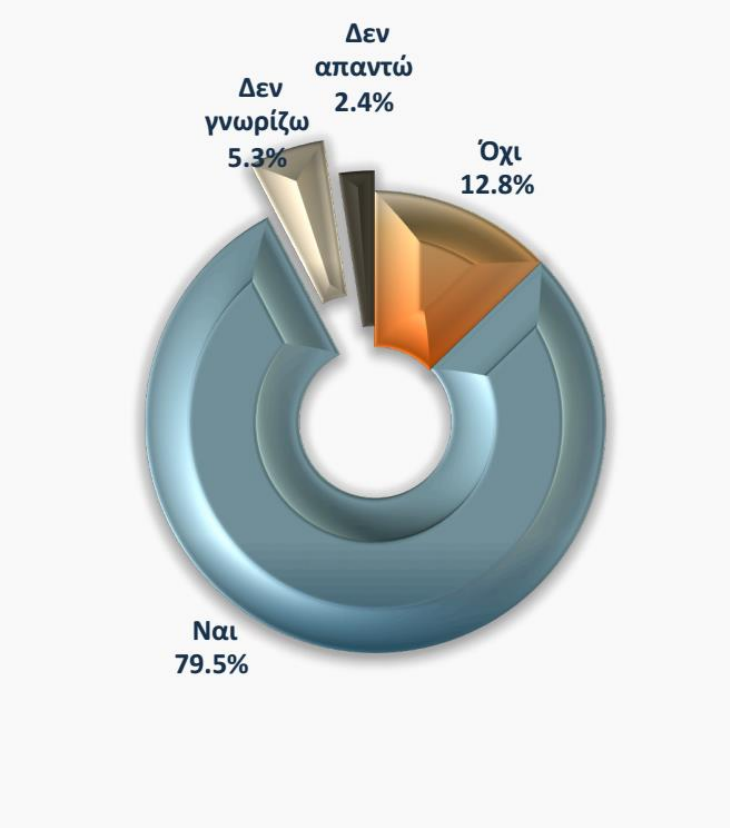


kanaresearch 2014

Σύμφωνα με όσα γνωρίζεις, το κάπνισμα προκαλεί ισχυρή εξάρτηση;

ΕΦΗΒΙΚΟ ΚΑΠΝΙΣΜΑ ΣΤΗΝ ΕΛΛΑΔΑ

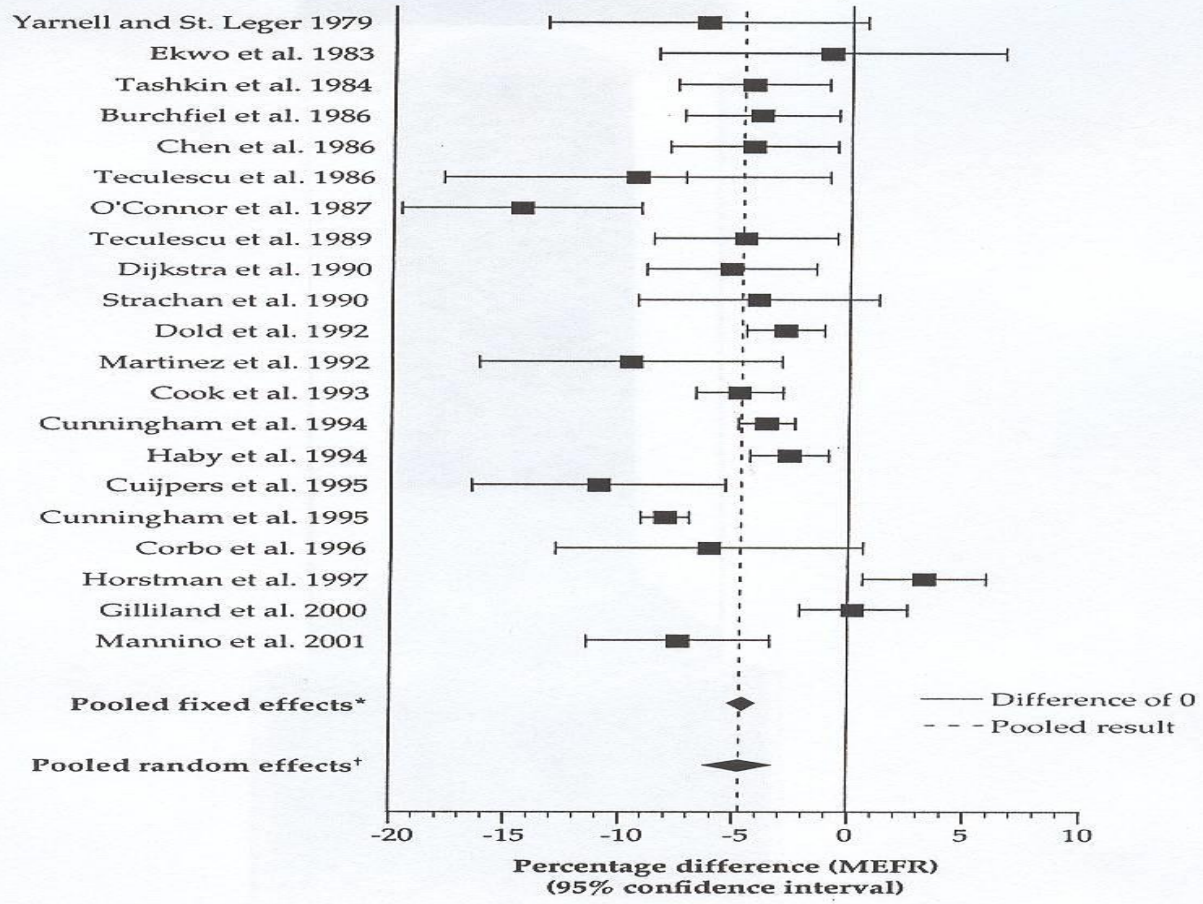
ΑΠΟΨΕΙΣ ΓΥΡΩ ΑΠΟ ΤΗ ΝΟΜΟΘΕΣΙΑ ΓΙΑ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΑΠΟ ΤΟ ΠΑΘΗΤΙΚΟ ΚΑΠΝΙΣΜΑ



kanaresearch 2014

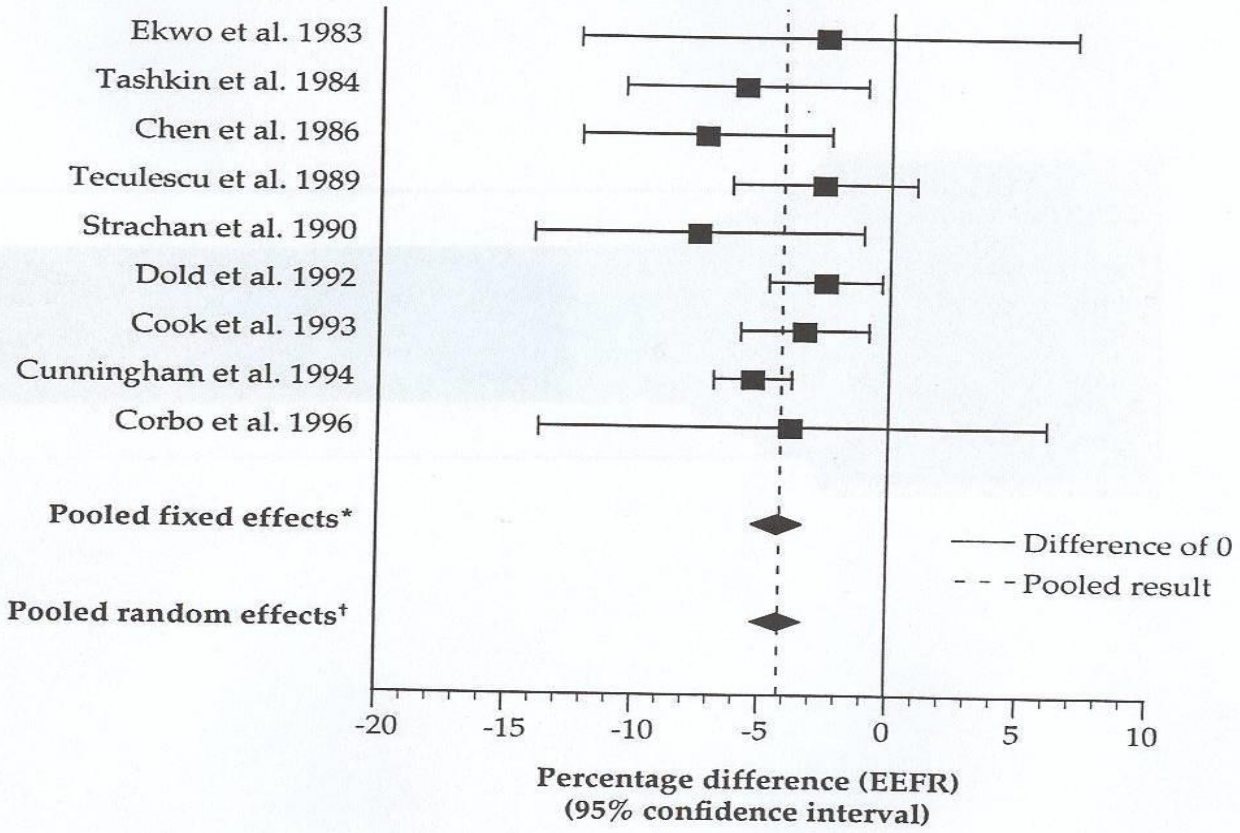
Συμφωνείς με την εφαρμογή της νομοθεσίας για την προστασία από το παθητικό κάπνισμα σε κλειστούς χώρους (μαγαζιά, εστιατόρια, καφετέριες, μπαρ);

Figure 6.16 Percentage difference in the mid-expiratory flow rate (MEFR) between children of smokers children of nonsmokers in studies included in the meta-analysis



*Pooled difference is from the fixed effects meta-analysis.
†Pooled difference is from the random effects meta-analysis.

Figure 6.17 Percentage difference in the end-expiratory flow rate (EEFR) between children of smokers and children of nonsmokers in studies included in the meta-analysis



*Pooled difference is from the fixed effects meta-analysis.
†Pooled difference is from the random effects meta-analysis.

E-CIGARETTES

MORE USERS

in 2014
12% tried at least once

in 2012
7% tried at least once

POPULAR WITH YOUNG PEOPLE

15-24	13%
25-39	11%
40-54	7%
55+	3%

MOTIVATION TO USE

- 67% to reduce or stop smoking tobacco
- 44% to smoke where tobacco smoking is not allowed
- 24% because they are attractive

SMOKERS USING E-CIGARETTES

- 49% did not quit or reduce
- 21% reduced, but did not quit
- 13% quit, but started again
- 14% quit smoking

ATTITUDES OF EUROPEANS TOWARDS TOBACCO 2015 : Key findings of the 2015 Eurobarometer

Tobacco industry's investment in non-cigarette nicotine products

Acronyms
BAT= British American Tobacco
JTI= Japan Tobacco International
MHRA= Medicines and Healthcare Products Regulatory Agency
NRT= Nicotine Replacement Therapy
PMI= Philip Morris International
TI = Tobacco industry

Jul 2002 — **GALLAHER** (now JTI) acquires Gustavus

Feb 2009 — **PMI &** Swedish Match Joint Venture

Dec 2009 — **REYNOLDS AMERICAN** acquires Swedish NRT company Niconovum

Apr 2011 — **BAT** sets up *Nicoventures* to develop nicotine delivery products

May 2011 — **PMI** buys patent for nicotine inhaler from Jed Rose, Duke University

Apr 2012 — **LORILLARD** acquires US-based e-cig company Blu Ecigs ('Skycigs')

Dec 2012 — **BAT** acquires UK-based e-cig company *CN Creative* ('Intellicig')

Feb 2013 — **IMPERIAL TOBACCO** sets up *Fontem Ventures* to develop e-cigs and other non-tobacco products

Jun 2013 — **RJ REYNOLDS** starts test market e-cig brand 'Vuse'

ALTRIA (via NuMark) starts test market of e-cig brand 'MarkTen'

Aug 2013 — **BAT** launches its first e-cig ('Vype') on UK market
---
IMPERIAL TOBACCO (Fontem Ventures) acquires China-based e-cig company Dragonite

Oct 2013 — **LORILLARD** acquires UK-based e-cig company Skycig

Dec 2013 — **PMI/ALTRIA** Agreement. PMI to sell Altria's e-cig brand 'MarkTen' outside US

Feb 2014 — **IMPERIAL TOBACCO** (Fontem Ventures) launches e-cig brand 'Puritane' on UK market

Jun 2014 — **PMI** acquires UK-based e-cig company Nicocigs

JTI acquires UK-based ec-0g company Zandera ('E-Lites')

Jul 2014 — **REYNOLDS AMERICAN** buys Lorillard. E-cig brand BLU is sold to **IMPERIAL TOBACCO**

2002 — 2014

2002-2009
PERIOD OF TI INVESTMENTS IN SWEDISH SNUS
(showing first and last investment only)

Late 2009-2011
TI INVESTMENTS IN PURE NICOTINE

First TI e-cig acquisition in US

First TI e-cig acquisition in UK

MAR 2013 Fontem Ventures takes US-based e-cig companies to court over patent claim

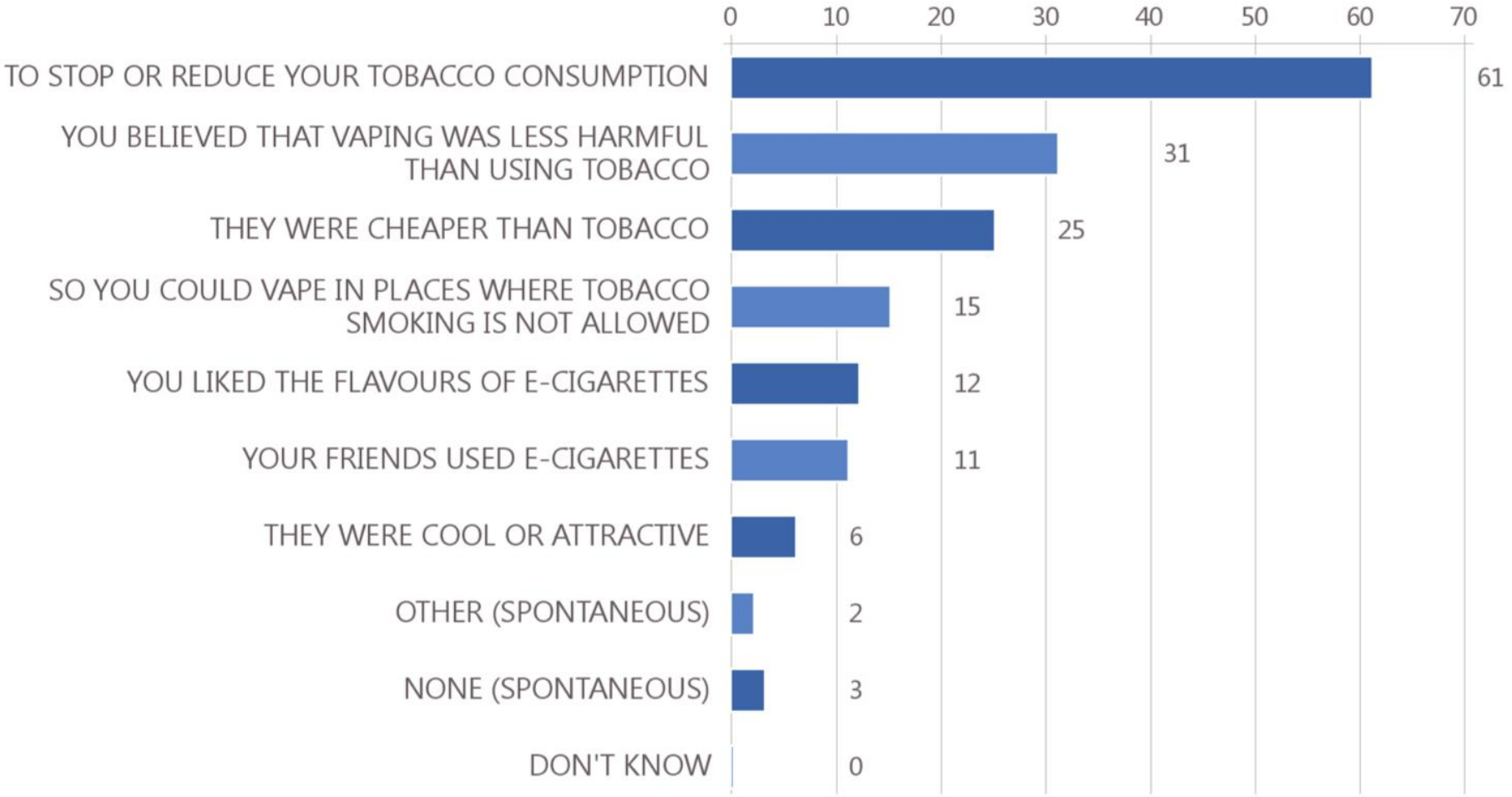
BAT is criticised for running an advert for its e-cig 'Vype' in an online children's game
---
Skycig (LORILLARD) signs a sponsorship deal with UK football team

E-cig brands 'Vype' and 'Puritane' become available in UK pharmacies

SEP 2014 BAT's nicotine inhaler 'Voke' gets MHRA approval to be sold as medicines in the UK.

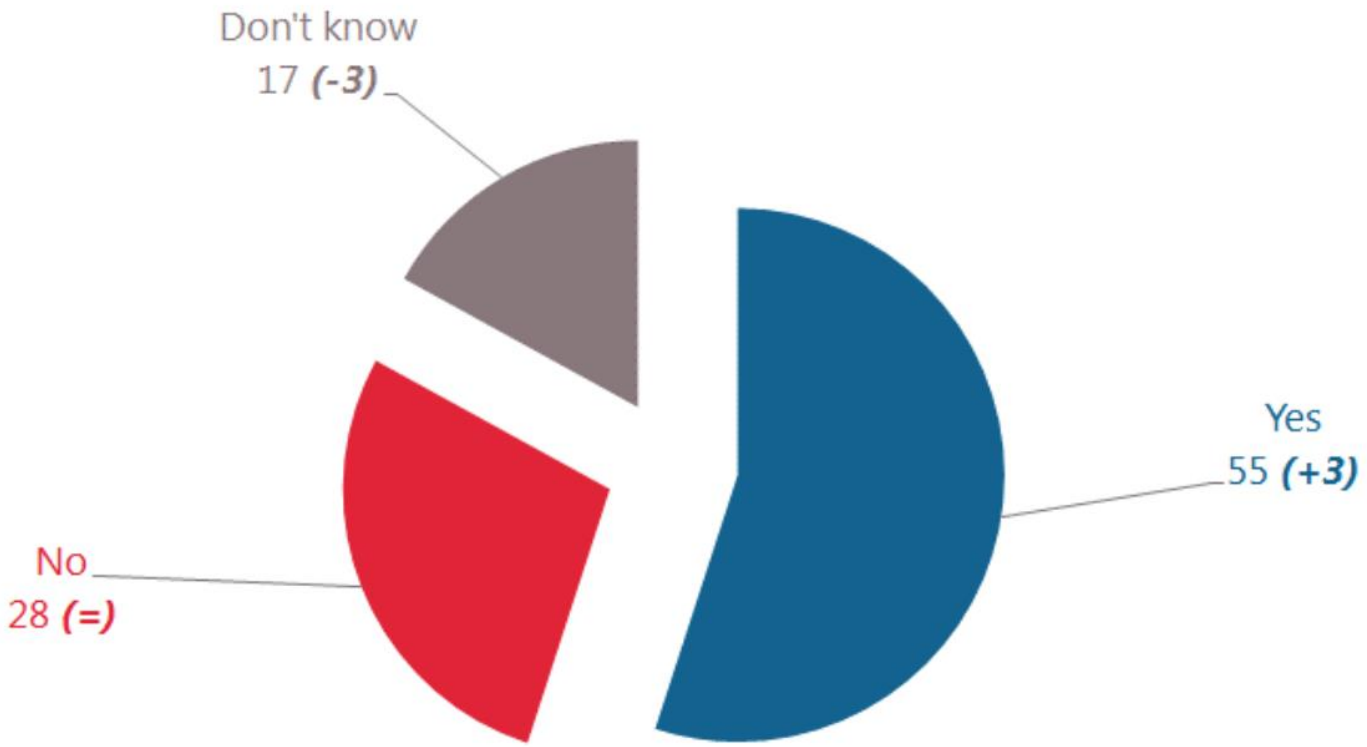
Last updated 8/9/2014

QB14 Which of the following factors, if any, were important in your decision to start using e-cigarettes? (MAX. 3 ANSWERS) **(% - EU)**



Base: respondents who currently use or used e-cigarettes, N=1,565

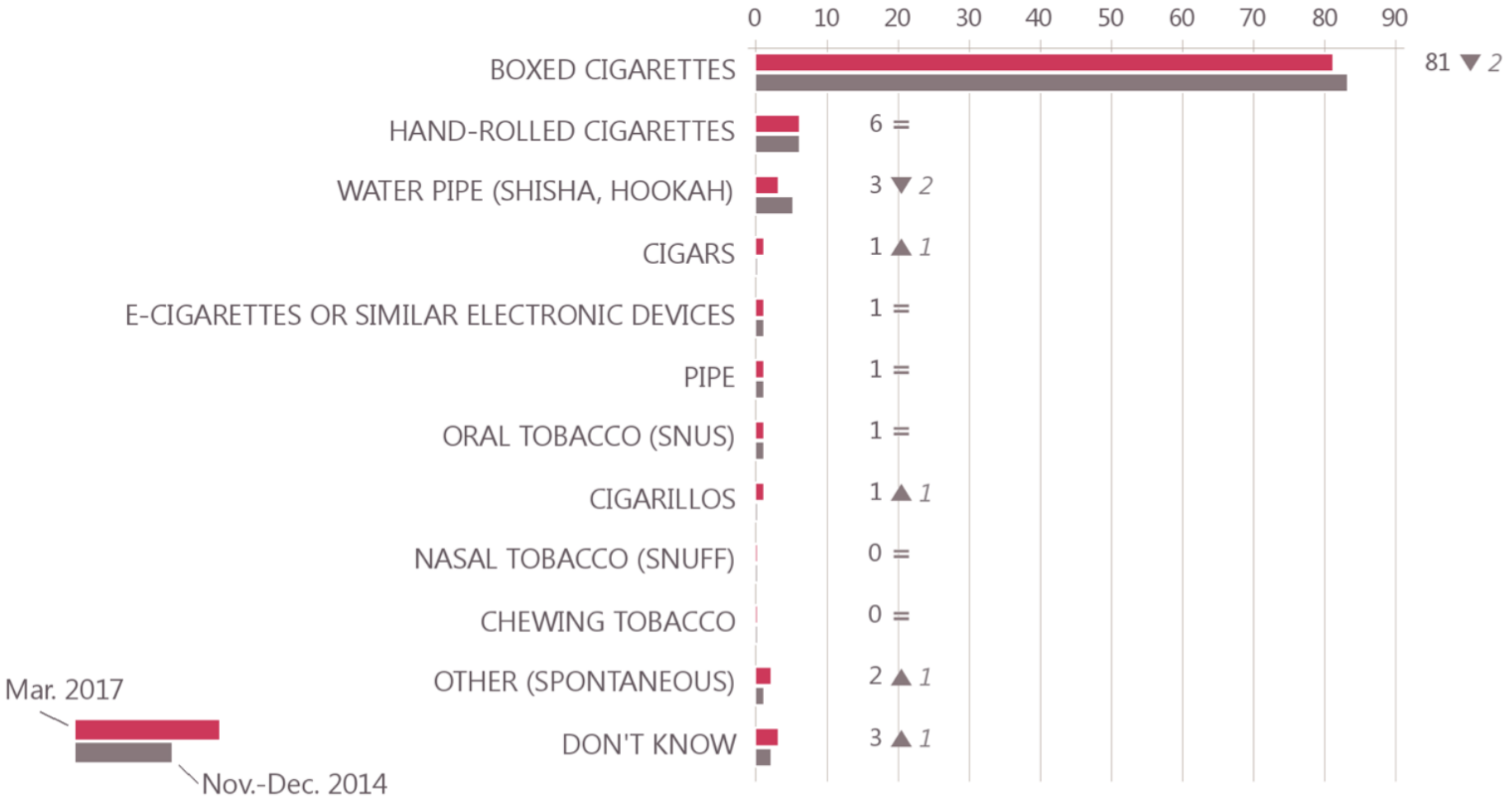
QB9 In recent years electronic cigarettes or e-cigarettes have been increasingly marketed in Europe. Do you think that they are harmful or not to the health of those who use them? **(% - EU)**



(Mar. 2017 - Nov.-Dec. 2014)

Base: all respondents, N=27,901

QB16 Which of the following products did you use or try first?
(% - EU)



Base: smokers, ex-smokers, respondents who have at least tried e-cigarettes, a water pipe or oral tobacco, N=16,142

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Pulmonary Illness Related to E-Cigarette Use in Illinois and Wisconsin — Preliminary Report

Jennifer E. Layden, M.D., Ph.D., Isaac Ghinai, M.B., B.S., Ian Pray, Ph.D., Anne Kimball, M.D., Mark Layer, M.D., Mark Tenforde, M.D., Ph.D., Livia Navon, M.S., Brooke Hoots, Ph.D., Phillip P. Salvatore, Ph.D., Megan Elderbrook, M.P.H., Thomas Haupt, M.S., Jeffrey Kanne, M.D., Megan T. Patel, M.P.H., Lori Saathoff-Huber, M.P.H., Brian A. King, Ph.D., M.P.H., Josh G. Schier, M.D., Christina A. Mikosz, M.D., M.P.H., and Jonathan Meiman, M.D.

PULMONARY ILLNESS RELATED TO E-CIGARETTE USE

METHODS

We defined case patients as persons who reported use of e-cigarette devices and related products in the 90 days before symptom onset and had pulmonary infiltrates on imaging and whose illnesses were not attributed to other causes. Medical record abstraction and case patient interviews were conducted with the use of standardized tools.

RESULTS

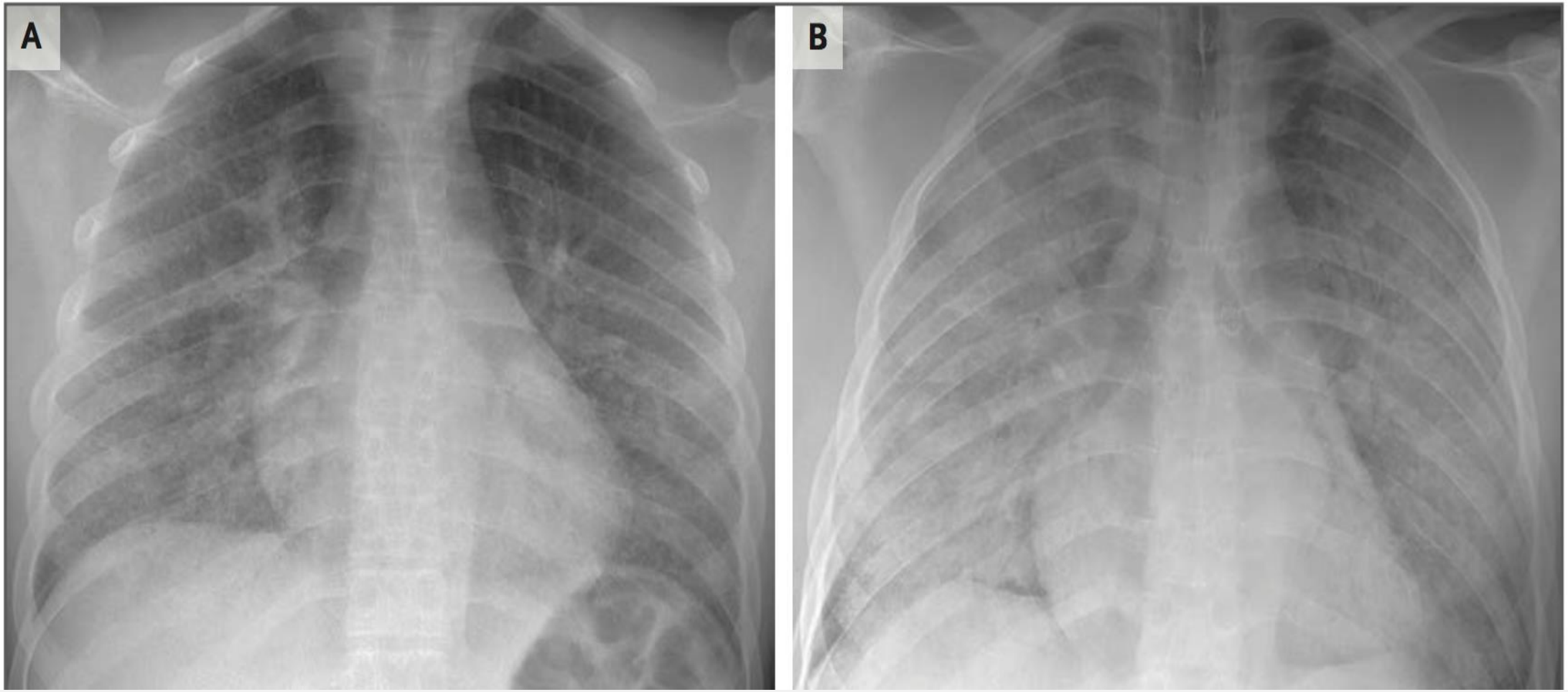
There were 53 case patients, 83% of whom were male; the median age of the patients was 19 years. The majority of patients presented with respiratory symptoms (98%), gastrointestinal symptoms (81%), and constitutional symptoms (100%). All case patients had bilateral infiltrates on chest imaging (which was part of the case definition). A total of 94% of the patients were hospitalized, 32% underwent intubation and mechanical ventilation, and one death was reported. A total of 84% of the patients reported having used tetrahydrocannabinol products in e-cigarette devices, although a wide variety of products and devices was reported.

Syndromic surveillance data from Illinois showed that the mean monthly rate of visits related to severe respiratory illness in June through August of 2019 was twice the rate that was observed in the same months in 2018.

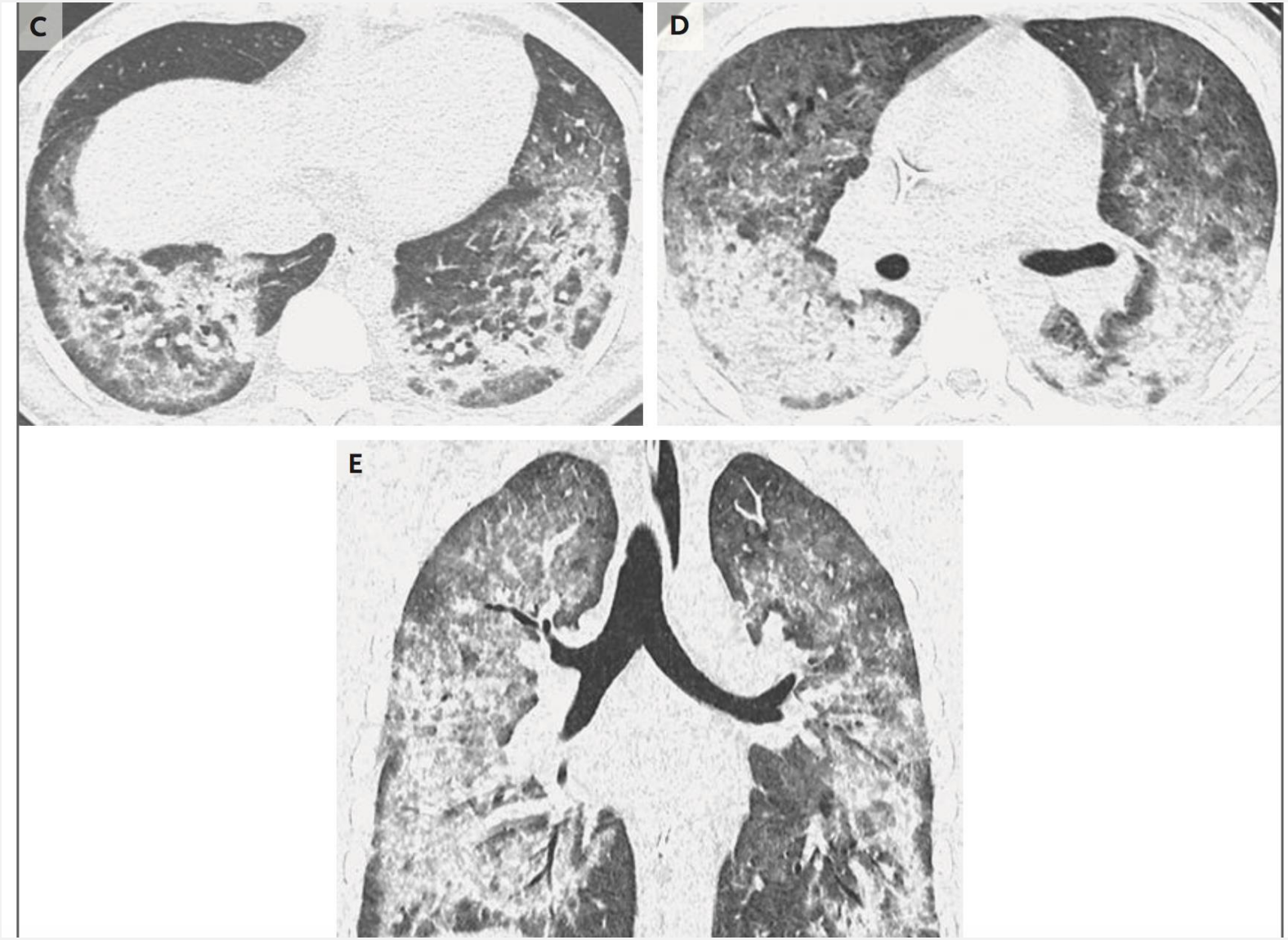
CONCLUSIONS

Case patients presented with similar clinical characteristics. Although the features of e-cigarette use that were responsible for injury have not been identified, this cluster of illnesses represents an emerging clinical syndrome or syndromes. Additional work is needed to characterize the pathophysiology and to identify the definitive causes.

NEJM



NEJM



NEJM

ELSEVIER

Chest

Volume 141, Issue 6, June 2012, Pages 1400-1406

Original Research

Tobacco Cessation and Prevention

Short-term Pulmonary Effects of Using an Electronic Cigarette: Impact on Respiratory Flow Resistance, Impedance, and Exhaled Nitric Oxide

Constantine I. Vardavas MD, MPH, PhD [a, b], Nektarios Anagnostopoulos MD [b, c], Marios Kougias MD [b, c], Vassiliki Evangelopoulou MD [b], Gregory N. Connolly DMD, MPH [a], Panagiotis K. Behrakis MD, PhD, FCCP [a, b, c]

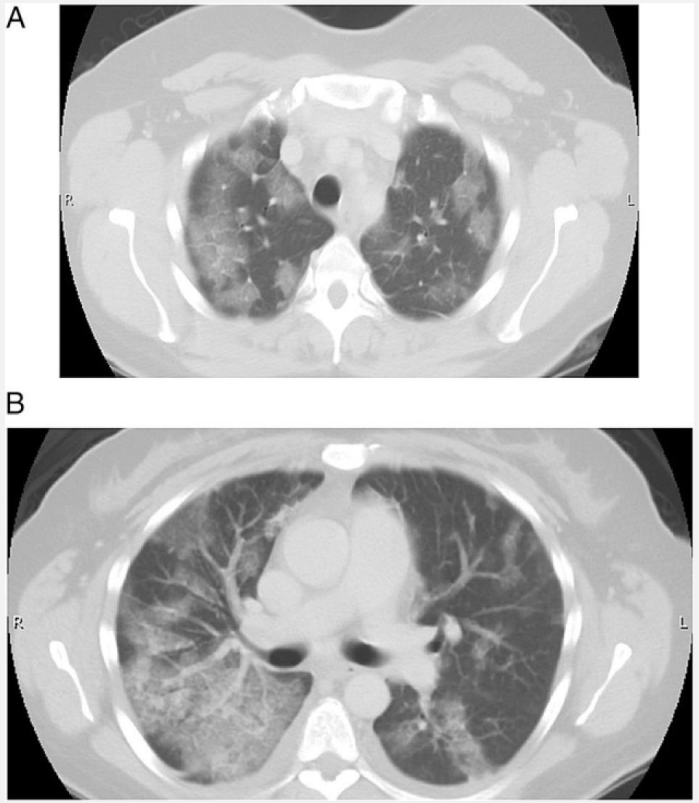
Show more

https://doi.org/10.1378/chest.11-2443

An Unexpected Consequence of Electronic Cigarette Use

Lindsay McCauley, DO, Catherine Markin, MD, FCCP, Danielle Hosmer, MD

CHEST
Volume 141, Issue 4, Pages 1110-1113 (April 2012)
DOI: 10.1378/chest.11-1334



CHEST 2012 141, 1110-1113DOI: (10.1378/chest.11-1334)

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- Full articles – smokers of any kind

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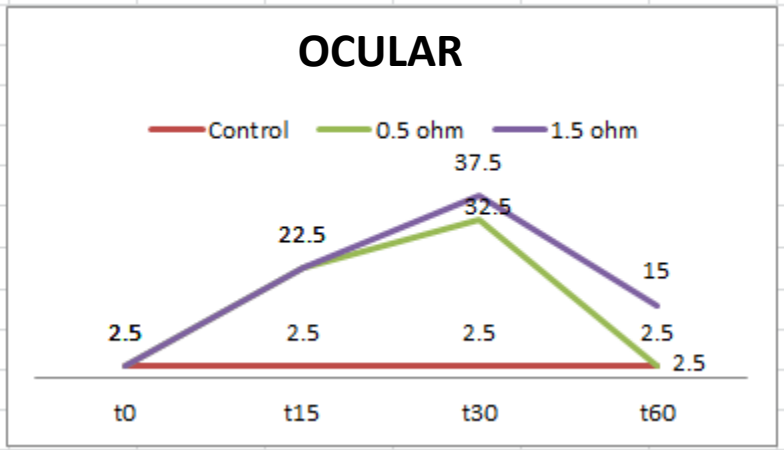
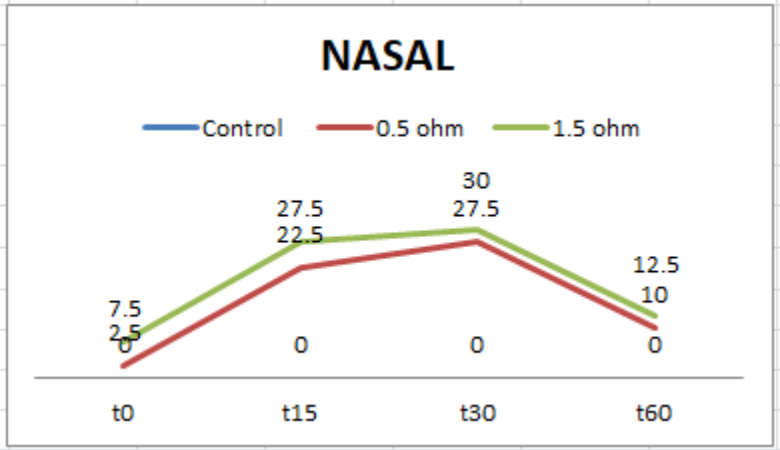
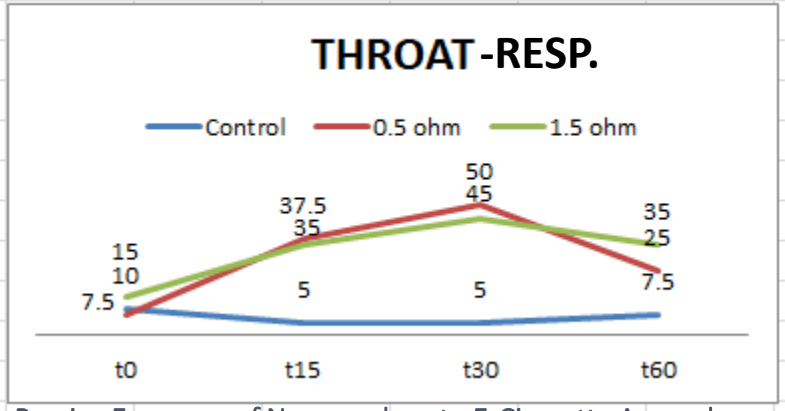
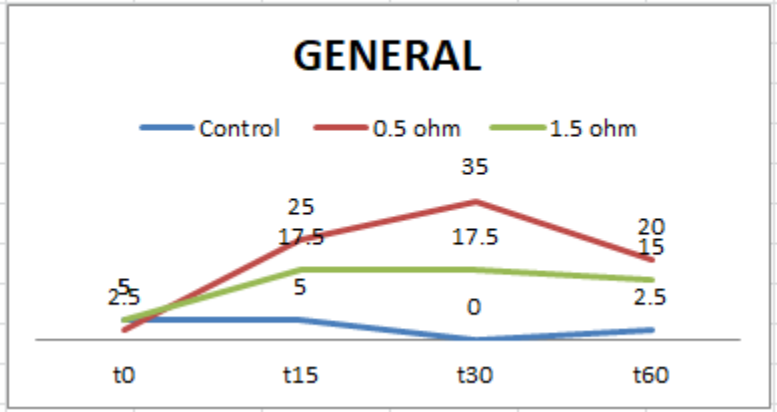
SENSORY IRRITATION PATTERNS



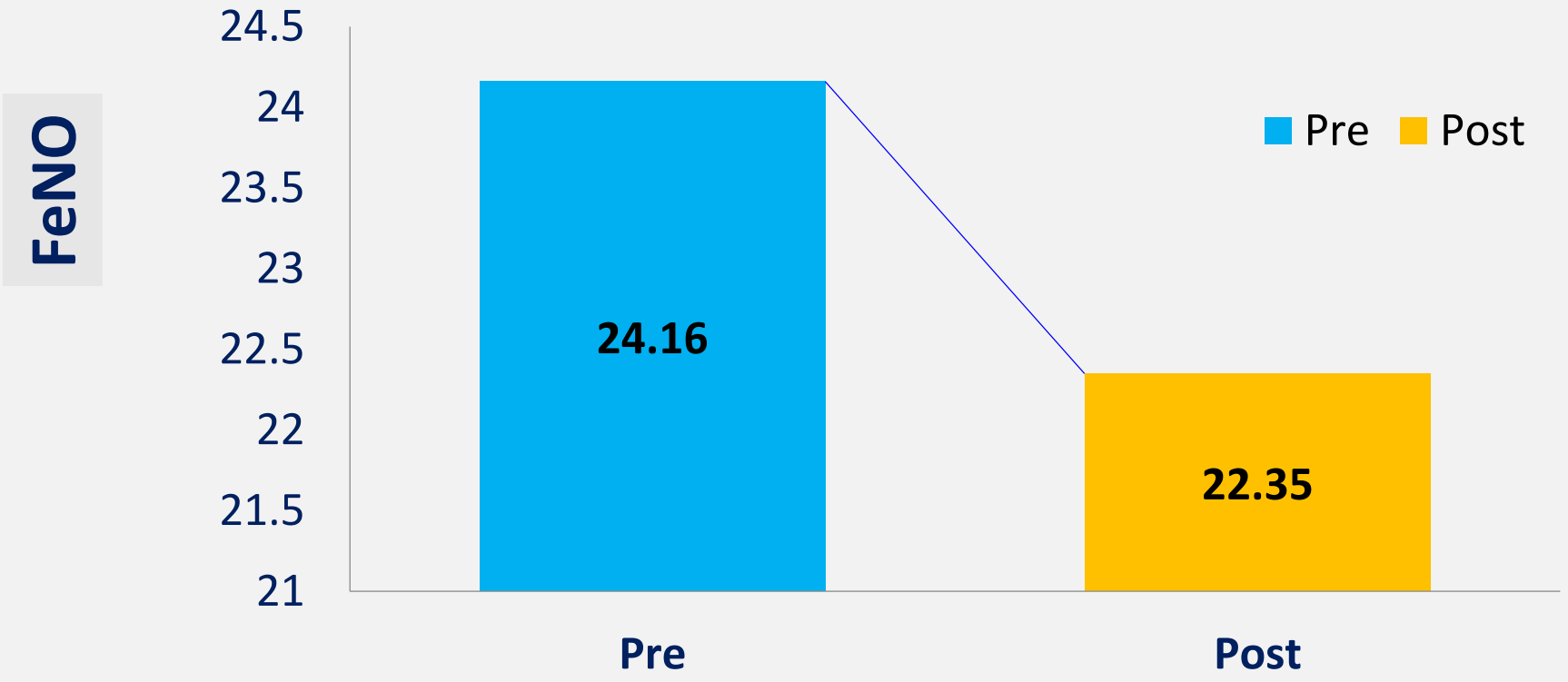






Passive Exposure of Non-smokers to E-Cigarette Aerosols:
Sensory Irritation, Timing and Association with Volatile Organic Compounds

Exhaled Nitrogen Oxide (FeNO)



Passive Exposure of Non-smokers to E-Cigarette Aerosols:
Sensory Irritation, Timing and Association with Volatile Organic Compounds

Table 2. Results of Impulse Oscillometry (IOS) and fractional exhaled nitric oxide (FeNO) pre and post all exposure sessions in 40 participants, Athens 2017.

	Session	Pre	SD	Post	SD	Diff.	p
Z5 (kPa/L/s)	control	0.40	0.11	0.41	0.11	0.01	0.302[t]
	0.5 ohm	0.41	0.12	0.41	0.12	0.00	0.661
	1.5 ohm	0.41	0.13	0.40	0.12	-0.01	0.930
R5 (kPa/L/s)	control	0.38	0.10	0.38	0.11	0.00	0.472[t]
	0.5 ohm	0.39	0.11	0.39	0.12	0.00	0.638
	1.5 ohm	0.39	0.13	0.38	0.12	-0.01	0.721
R10 (kPa/L/s)	control	0.34	0.09	0.34	0.09	0.00	0.291[t]
	0.5 ohm	0.35	0.10	0.35	0.10	0.00	0.540
	1.5 ohm	0.34	0.11	0.34	0.10	0.00	0.377
R20 (kPa/L/s)	control	0.34	0.08	0.34	0.09	0.00	0.580[t]
	0.5 ohm	0.34	0.09	0.35	0.09	0.01	0.373[t]
	1.5 ohm	0.34	0.09	0.34	0.09	0.00	0.571
Mean R5-R20	control	0.36	0.09	0.36	0.09	0.00	0.495[t]
(kPa/L/s)	0.5 ohm	0.36	0.10	0.37	0.11	0.01	0.340
	1.5 ohm	0.36	0.11	0.36	0.10	0.00	0.584
X5 (kPa/L/s)	control	-0.11	0.04	-0.11	0.04	0.00	0.819[t]
	0.5 ohm	-0.12	0.04	-0.14	0.13	-0.02	0.906
	1.5 ohm	-0.12	0.04	-0.11	0.03	0.01	0.286

Continued

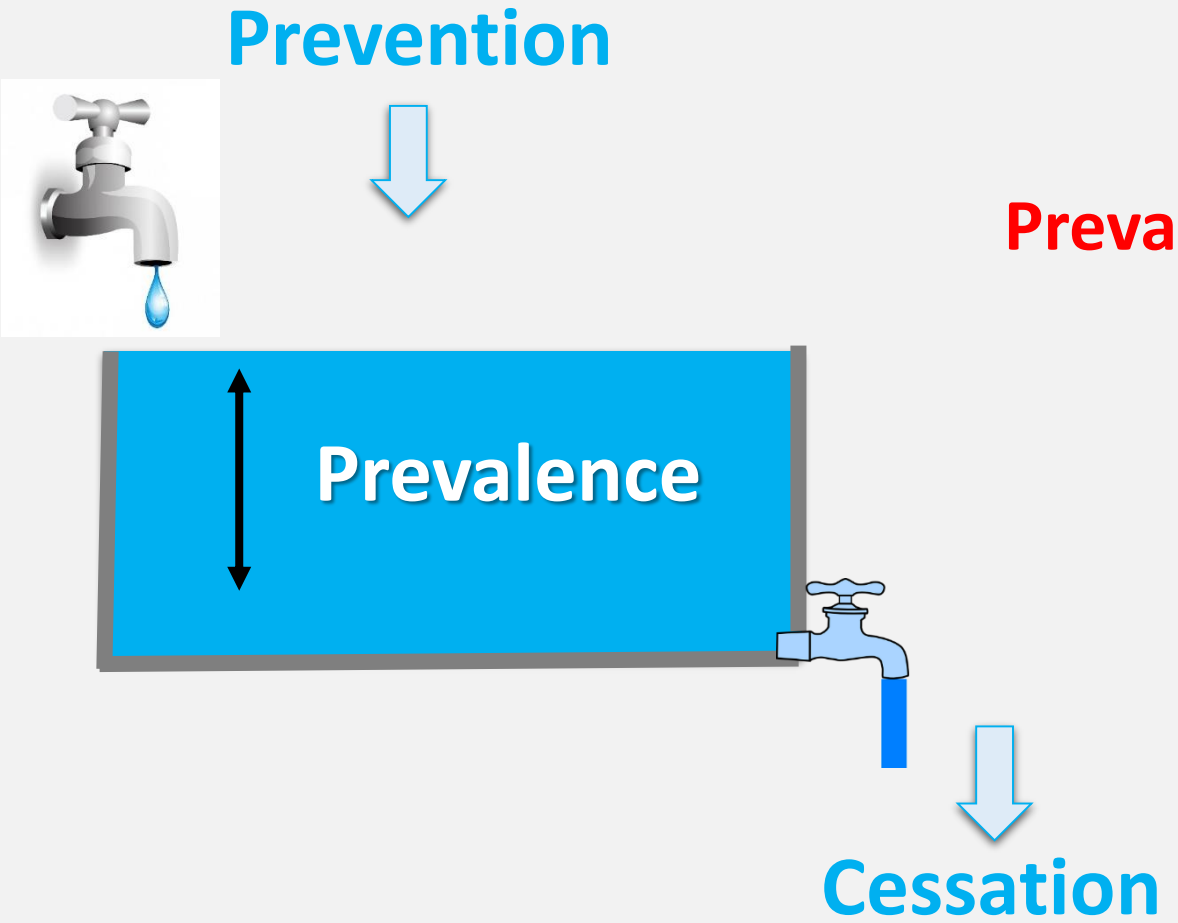
Table 2. Continued

	Session	Pre	SD	Post	SD	Diff.	p	
fres (Hz)	control	11.15	3.24	11.33	3.30	0.18	0.141	
	0.5 ohm	11.70	3.27	11.23	2.82	-0.47	0.066	
	1.5 ohm	11.38	3.66	12.16	4.07	0.78	0.047	
AX (kPa/L)	control	0.33	0.26	0.34	0.28	0.01	0.440	0.047
	0.5 ohm	0.36	0.26	0.34	0.25	-0.02	0.224	
	1.5 ohm	0.38	0.46	0.36	0.26	-0.02	0.247	
FeNO (ppb)	control	26.45	0.11	25.00	0.11	-1.45	0.070	
	0.5 ohm	24.16	0.12	22.35	0.12	-1.81	0.006	
	1.5 ohm	24.35	0.13	23.44	0.12	-0.91	0.368	0.006

SD: standard deviation; p-values result of Wilcoxon signed rank test unless indicated by t-results of t-test; Diff.: Difference between post and pre exposure.

Passive Exposure of Non-smokers to E-Cigarette Aerosols:
Sensory Irritation, Timing and Association with Volatile Organic Compounds

The “runny tap” analogy



$$\text{Prevalence} = f * \frac{\text{Prevention}}{\text{Cessation}}$$

Research

Education

Communication

SCIENCE

Prevention

Cessation

ΕΥΧΑΡΙΣΤΩ