

Smoking on the Margins: An Equity Analysis of Vancouver's Outdoor Smoke-free Policy in Parks and on Beaches



Chizimuzo T.C. Okoli, PhD, MPH,
Director, Tobacco Treatment and Prevention Division, Tobacco Policy Research Program,
University of Kentucky College of Nursing, Lexington, KY, USA



Ann Pederson, MSc, PhD (C),
Director, B.C. Centre of Excellence for Women's Health, Vancouver, BC, Canada





Dr Joan Bottorff (Co-I)



Christina Tonella (Partner)

Dr Milan Khara (Collaborator)

Tom Heah (Collaborator)



Dr Andrew Johnson
(Collaborator)



Dr Chizimuzo Okoli (PI)

Dr Ellen J Hahn (Collaborator)



Ann Pederson (PI)

Dr Lorraine Greaves (Co-I)

Natalie Hemsing (Co-I)

Nancy Poole (Co-I)

Wendy Rice (Res. Coordinator)

Anna Liwander (Res. Coordinator)



Jack Boomer (Partner)



Thomas Soulliere
(Partner)



Deborah McLellan
(Partner)

**SMOKING
ON THE MARGINS
PROJECT TEAM,
COLLABORATORS
AND
PARTNERS**

Funding Source

CIHR Population Health Intervention Research Operating Grant – designed to study an intervention in action not controlled by the investigators



Canadian Institutes
of Health Research

Instituts de recherche
en santé du Canada

Project Overview:

Smoking on the Margins (SOTM)

- **Purpose:** To examine the health and health equity impact of the newly implemented smoke-free policy for Vancouver's parks and beaches
- **Methods:** Our aims are primarily descriptive, using a mixed-methods approach (observational data, survey research and various qualitative methods including ethnographic and group interviews) to generate a comprehensive understanding of a policy *in context*.

**VANCOUVER'S
PARKS &
BEACHES
WILL BE
SMOKE-FREE
STARTING SEPT 1, 2010**
vancouverparks.ca



Why smoke-free policies in parks and beaches?

- Health



- there is no known 'safe-level' of SHS exposure

- Aesthetics/Environmental



- reducing litter, the risk of fires

- Denormalization



- eliminating the perception that smoking is a normative behavior (particularly on youth)



Context

- On September 1, 2010 a smoke-free bylaw banning the **smoking of any substance** in the city's parks, beaches and recreational facilities was implemented.

A By-law of the City of Vancouver Board of Parks and Recreation to regulate smoking in parks

WHEREAS it has been determined that second-hand smoke is a health hazard and nuisance for people in parks in the City of Vancouver....

3.1 A person must not smoke:

- (a) in a park;
- (b) on a seawall or beach in a park;
- (c) in a building in a park, except in a caretaker's residence;
- (d) in a customer service area in a park;
- (e) in a vehicle for hire in a park;
- (f) on public transit in a park; or
- (g) in an enclosed or partially enclosed shelter in a park where people wait to board a vehicle for hire or public transit.

Fine for offence

4.2 Every person who commits an offence against this By-law is punishable on conviction by a fine of not less than \$250.00 and not more than \$2,000.00 for each offence, except that a person who commits an offence under section 3.2(a), 3.2(b) or 3.2(c) of this By-law is liable to a fine of not less than \$500.00 for each offence.

Project Components

Primary Elements:

- Ethical Framework
- **Parks and beaches observation**
- **Population survey**
- Park Ranger focus groups
- Description of policy context and policy development
- **Media analysis**



Other data sources:

- Beach litter
- By-law citations



PARKS AND BEACHES OBSERVATION PROJECT

- Examine changes in Frequency of smoking in selected Parks (n=3 prelaw, n = 3 postlaw) and on selected Beaches (n=3)
- Examine changes in locations of smoking in selected Parks and on selected Beaches

Protocol

- 30 minutes observation, 2 observers per venue

Record:

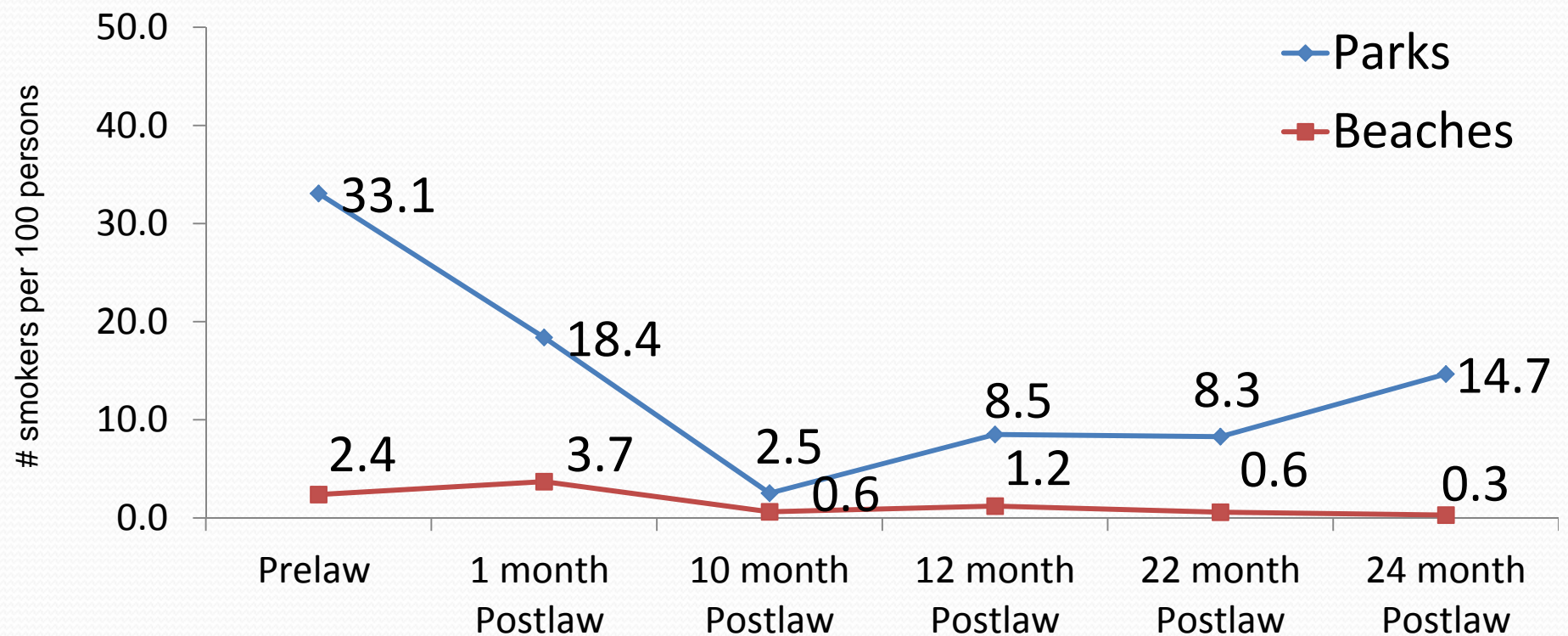
- time of entry & exit,
- temperature (warm, cool), wind condition (breezy, none breezy),
- number of persons in venue, number of smokers (by gender and approximate age)
- non-smoking signs
- interactions between smokers and nonsmokers



Observed smoking in selected Beach (Prelaw Vs.12-month Postlaw)



Changes in smoking rates* in selected Parks and Beaches (Prelaw to 24-month Postlaw)



Note:

Smoking rate = $(\# \text{ smokers} / \# \text{ persons in venue}) * 100$

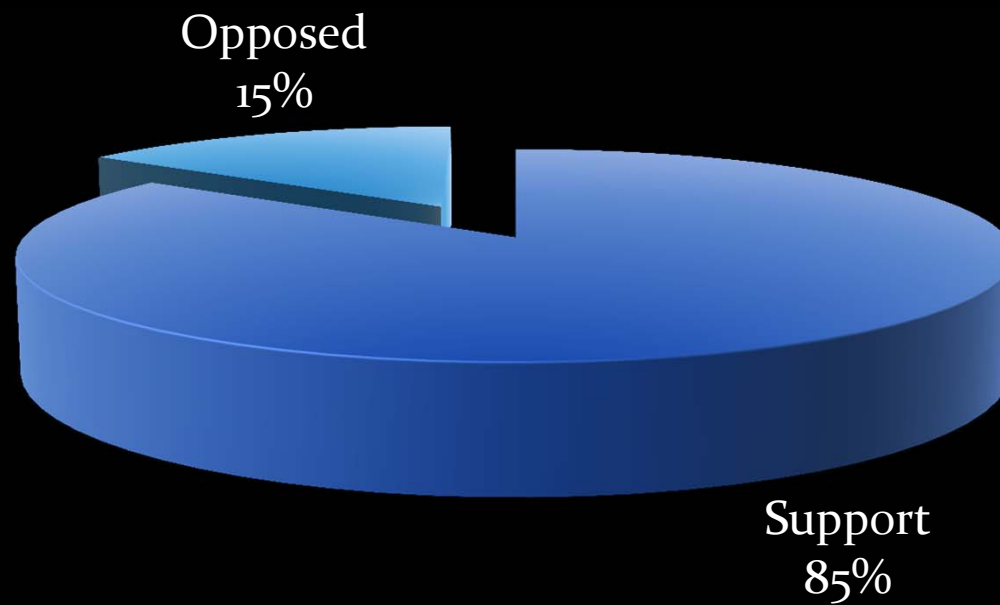
Despite significant overall decreases in smoking rates in the total venues and parks, differences between prelaw and 12-month and prelaw and 24-month mean rates were not statistically significant (using Bonferonni corrections) in total venues combined and in beaches.

Population Survey Project



- Sampling: Random-digital-dialing of residents in Vancouver, BC, who have visited a park or beach in previous year.
- $N = 496$
- Survey carried out September 2011.
- Information obtained:
 - Demographics (age, sex, income level, ethno-cultural affiliation, education status)
 - Smoking history (i.e., current smoking status, cigarettes smoked per day and nicotine dependence for smokers)
 - SHS exposure (sources and frequency of exposure)
 - Opinions regarding the smoke-free policy
 - Behaviour changes in using parks and beaches since the smoke-free policy was introduced.

Support for the Smoke-free Law in Parks and on Beaches

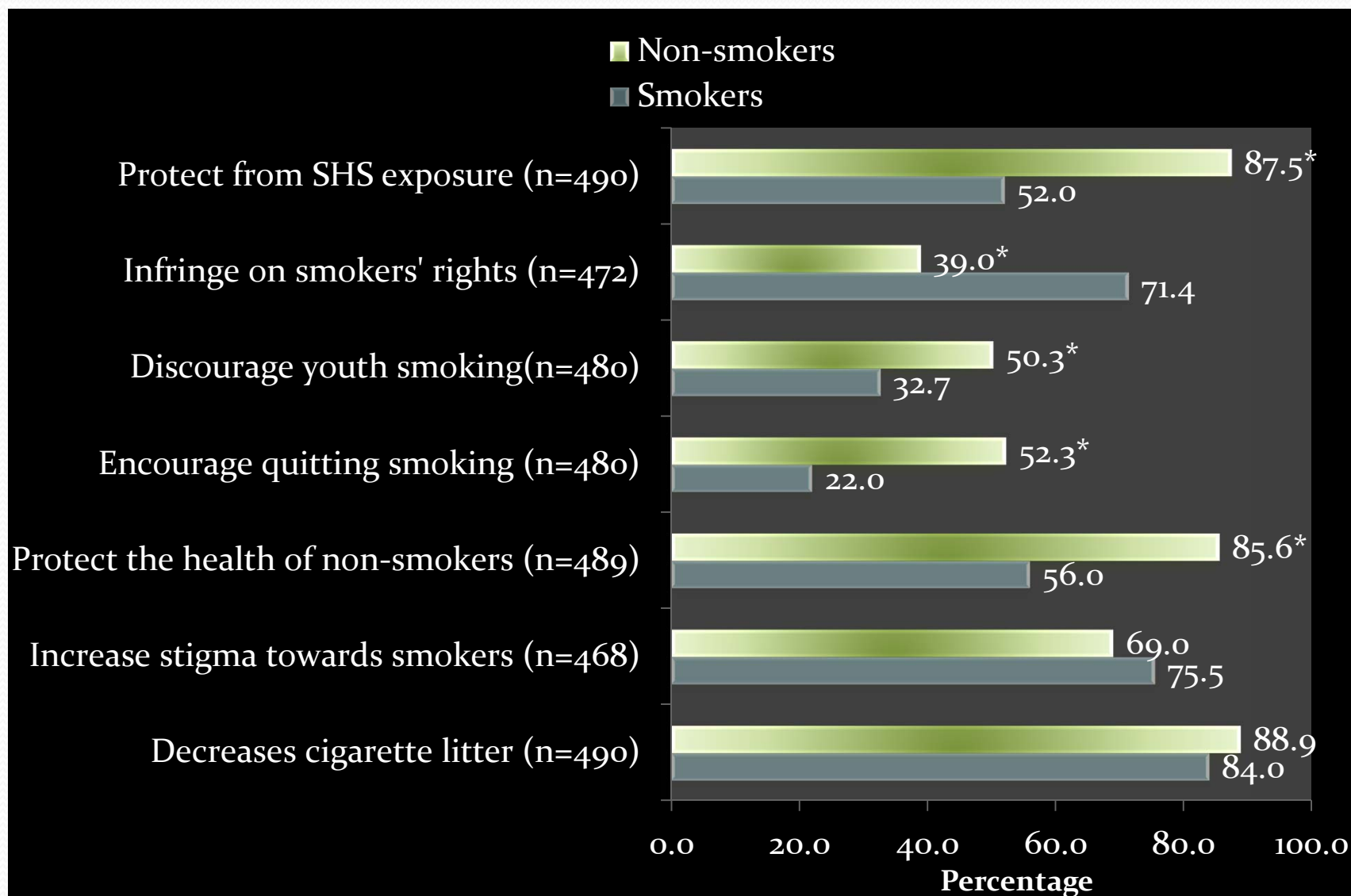


Significant demographic variables associated with support for a smoke-free law (support vs. oppose) in parks and beaches

	B (SE)	OR (95% CI)
Gender		
Female	1.0 (0.3)	2.8 (1.5-5.1)
Male (referent)		1.0
Marital status		
Never married	-0.8 (0.4)	0.5 (0.2-1.0)
Divorced/Separated/Widowed	-1.1 (0.4)	0.3 (0.2-0.7)
Married, living with spouse/common law (referent)		1.0
Education status		
High school graduate or less (referent)		1.0
Some College or Community College	0.6 (0.5)	1.7 (0.6-5.0)
Community College/University Graduate	0.9 (0.4)	2.5 (1.1-5.5)
Post Graduate degree	0.9 (0.5)	2.5 (1.0-6.0)
Smoking Status		
Non-smoker	1.8 (0.4)	6.1 (2.9-12.7)
Smoker (referent)		1.0

B = coefficient for the constant, SE = standard error, OR = Odds Ratio, 95% CI = 95% Confidence Interval

Opinions regarding support for smoke free law



* indicates significant differences ($p < .05$) between smokers and nonsmokers

Media Analysis Project

Newspapers

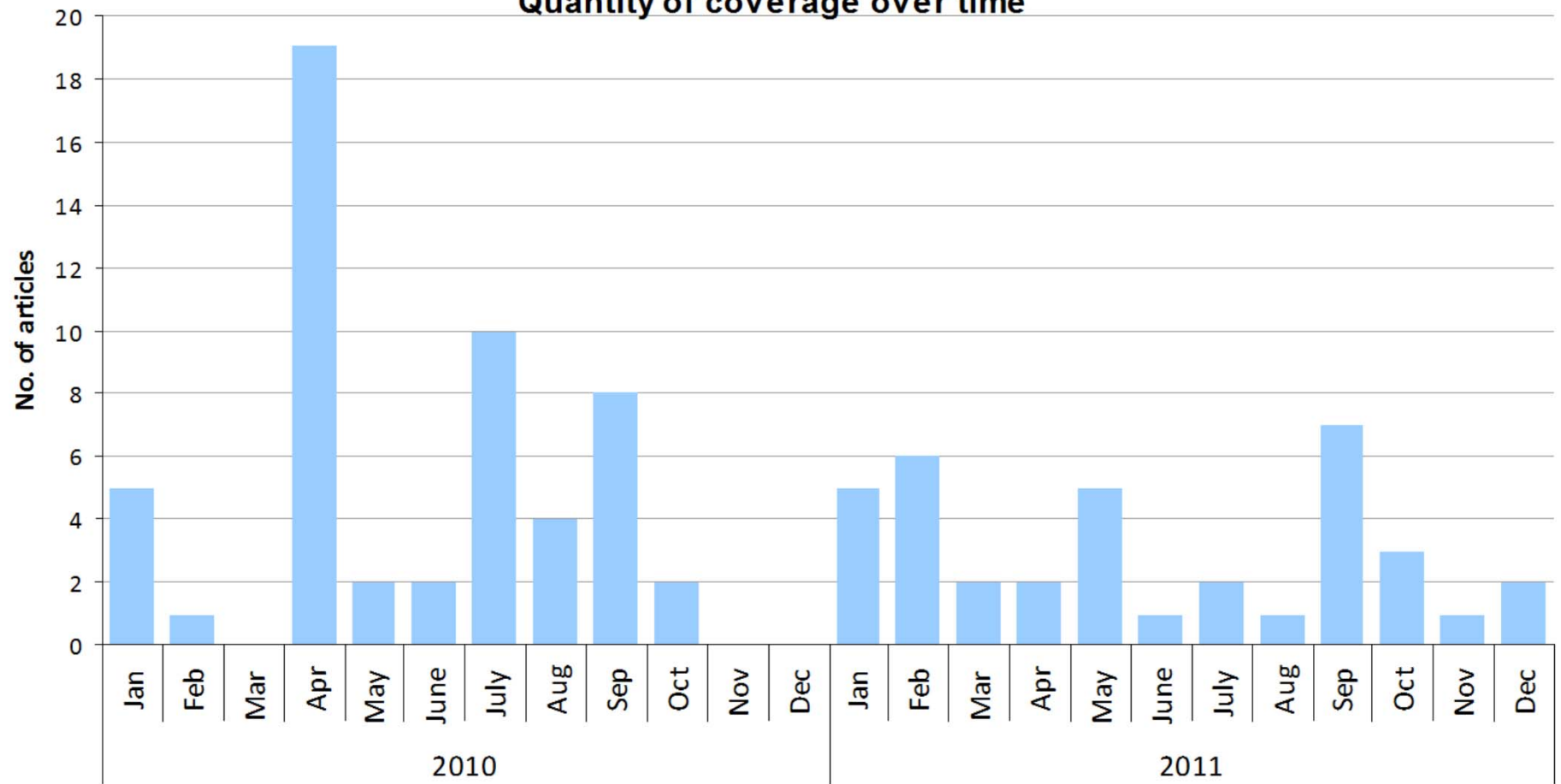
- The Vancouver Sun
- The Province
- The Globe and Mail (BC Edition)
- The Georgia Straight
- The Surrey Leader
- Kelowna Capital News
- Penticton Western News



Date Range

- January 2010 – December 2011 (N = 90 articles)

Quantity of coverage over time





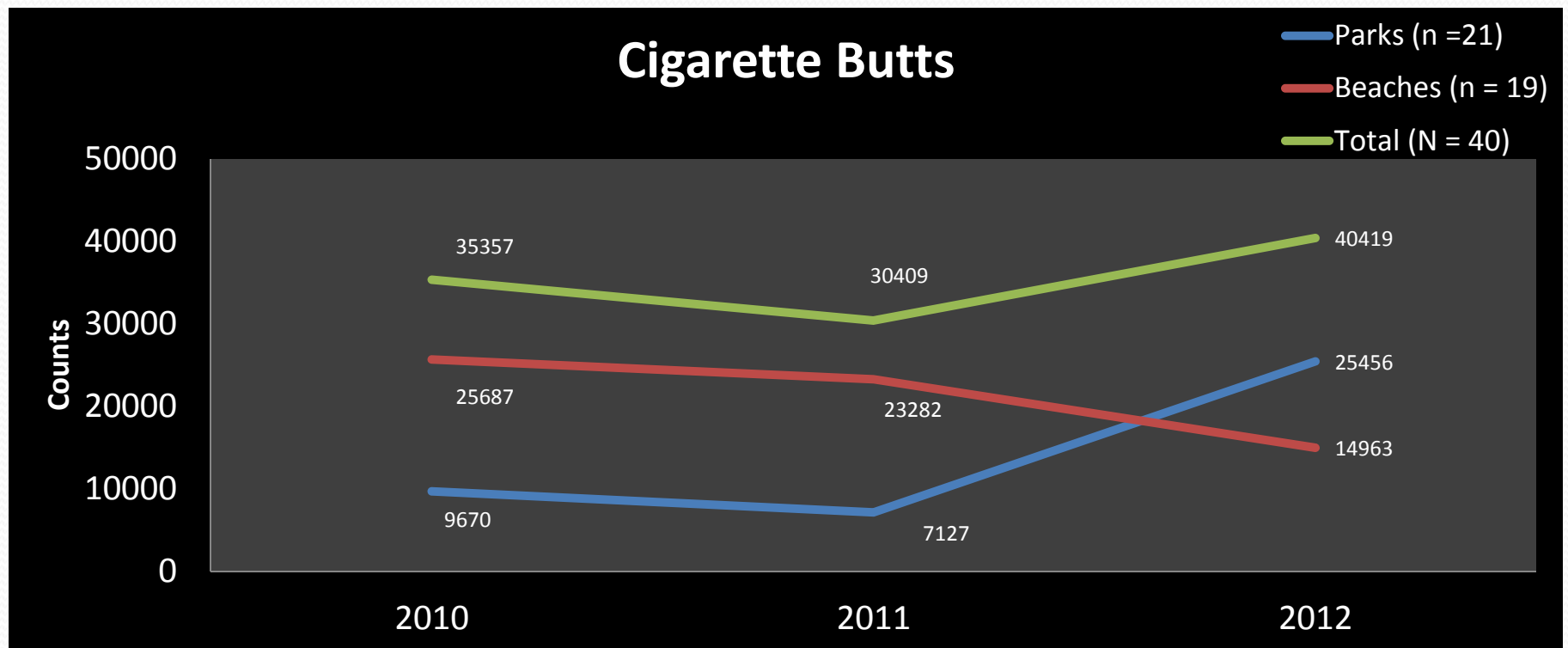
Article Slant

	Positive (%, n)	Neutral (%, n)	Negative (%, n)	N/A (%, n)
All Articles	38.9%, 35	30.0%, 27	22.2%, 20	8.9%, 8
News reports	50.0%, 27	38.9%, 21	7.4%, 4	3.7%, 2
Letters to the Editor	23.5%, 4	5.9%, 1	64.7%, 11	5.9%, 1

Beach Litter Project



- Data obtained from the Great Canadian Shoreline Cleanup, both pre- and post- ban (2010-2012).
- Frequencies of total cigarette related litter per beach count data reported by year.



By-Law Citations Project

- Purpose is to examine changes in smoking citations during summer and fall months (May, June, July, August, Sept, October)
- Data on citations has been obtained from the Vancouver Board of Parks and Recreation for September 2010-July 2013

Vancouver outdoor smoke-free bylaw enforcement statistics (September July 2013)

	2010	2011	2012	2013 (Jan –July)
Written warning		61	159	151
Municipal Tickets Issued	1	37	66	42



Preliminary Conclusions

- The smoke-free law is well received and supported by city park and beach users. However, there are differences in support of the law by smoking status
- There is evidence for differential compliance effects of the law; selected parks have a significant decrease in observed smoking rates as compared to beaches.
- Important issues surrounding unintended consequences of the law need to be addressed--data still being analyzed

Questions? Comments?

