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Smoking on the Margins: An Equity Analysis of the Outcomes of an Outdoor Smoke-free Policy

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British Columbia
Centre of Excellence
for Women's Health



Smoking on the Margins

An Equity Analysis of the Outcomes of
an Outdoor Smoke-free Policy

Chizimuzo Okoli and Ann Pederson, Co-PAs



Project Overview



- Purpose: To analyze the health and health equity impact of the newly implemented smoke-free policy for Vancouver's parks and beaches
- CIHR Operating Grant: Population Health Intervention Research – designed to study an intervention in action not controlled by the investigators
- End date of funding, March 31, 2013 (with potential 12-month extension)

Project Team

Co-Principal Applicants:

- Dr Chizimuzo Okoli, Kentucky Center for Smoke-free Policy, University of Kentucky
- Ann Pederson, BC Centre of Excellence for Women's Health

Co-Applicants:

- Dr Joan Bottorff, Institute for Healthy Living and Chronic Disease Prevention, UBC Okanagan
- Dr Lorraine Greaves, BC Centre of Excellence for Women's Health
- Natalie Hemsing, BC Centre of Excellence for Women's Health
- Nancy Poole, BC Centre of Excellence for Women's Health

Project Staff

- Wendy Rice, Research Coordinator, BC Centre of Excellence for Women's Health



Collaborators and Partners

- Jack Boomer, Clean Air Coalition of BC
- Dr Ellen J Hahn, Kentucky Center for Smoke-free Policy and University of Kentucky
- Tom Heah, Vancouver Coastal Health Authority Mental Health Services
- Dr Andrew Johnson, University of Kentucky College of Public Health
- Milan Khara, Vancouver Coastal Health Addictions and Mental Health Services



Collaborators and Partners cont.

- Deborah McLellan, International Network of Women Against Tobacco
- Thomas Soulliere, Vancouver Board of Parks and Recreation
- Christina Tonella, Vancouver Coastal Health Tobacco Reduction Strategy



Project Objectives

- To understand the **health and health equity effects** of Vancouver's new smoke-free policy in parks and on beaches.
- To assess the **differential impact of the policy** for diverse groups of women and men, in particular those with a high prevalence and susceptibility to smoking and SHS exposure.
- To understand how **social, economic and environmental factors influence** women and men's capacity to manage SHS exposure and tobacco use in parks and on beaches, and their **compliance** with the policy.
- To **develop recommendations** to refine future smoke-free policies to enhance their effectiveness and reduce any unintended contributions to health inequities.

Overall Research Questions

1. Are there any adverse health and health equity effects of a new outdoor smoke-free policy for diverse women and men?
2. What are some of the key barriers to preventing outdoor tobacco use or SHS exposure found in the course of implementing of an outdoor smoke-free policy?
3. How do diverse women and men support and/or resist such a smoke-free policy?



Research Methods

- **Methods:** This study employs 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*. Our aims are descriptive and analytical.
- **Theoretical approach:** Policy research informed by equity-focused Health Impact Assessment, population health ethics, Sabatier's Coalition Advocacy perspective, and UK Overseas Development Institute's research-policy framework
- **Analysis:** Descriptive and multivariate analysis are being applied to the quantitative data collection; thematic analyses are guiding the qualitative data.

Conference Presentations

Posters in relation to the project have been presented at:

- National Conference on Tobacco or Health, Toronto, November 2011.
- Public Health Association of British Columbia Annual Conference, Richmond, BC, November 2011.
- World Conference on Tobacco or Health, Singapore, March 2012.
- Canadian Public Health Association Conference, Edmonton, June 2012.



Project Components

Primary Elements:

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

Other data sources:

- Beach litter
- By-law citations



Ethical Framework

The purpose of the ethical framework is to:

- Develop an understanding of the interplay between evidence and ethics in relation to outdoor smoke-free policies, and the potential impact of such policies on equity;
- Analyze the benefits and burdens of outdoor smoke-free policies, particularly in relation to certain subpopulations; and
- Develop recommendations to ensure future outdoor smoke-free policies are ethical and equitable.

Evidence, Ethics & Equity Paper

- Paper will be published by the BC Centre of Excellence for Women's Health.
 - Framework document using a modified version of the Kass (2001) public health ethics framework.
 - Gives background on health equity and the scope of public health.
 - Scientific and policy background on SHS exposure.
 - Summarizes current debates.
 - Provides an ethical analysis of outdoor smoke-free policies.

CIHR Public Health Ethics Casebook

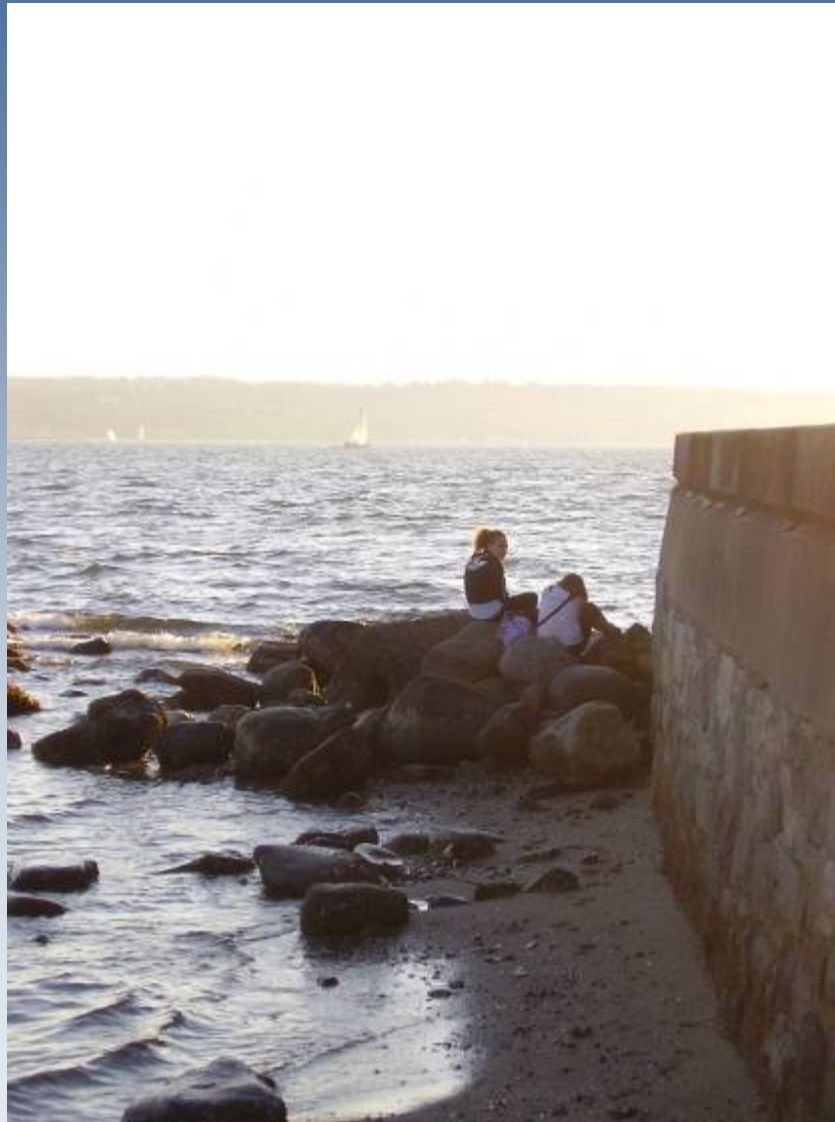
- Submission accepted to contribute to a casebook examining current ethical issues in population and public health.
- Casebook to be published in December 2012.
- Our piece examined:
 - The subpopulations who may be disproportionately affected by such policies;
 - Possible unintended consequences of outdoor smoke-free policies on these subpopulations; and
 - Possible solutions to the ethical challenges posed by these policies.

Balancing Benefits and Burdens paper

- Paper developed for submission to *Critical Public Health*.
- Focuses primarily on modified Kass (2001) framework to guide analysis.
 - Examines the stated goals of outdoor smoke-free policies;
 - Discusses evidence of their effectiveness; and
 - Looks at the associated benefits and burdens of such policies.



Smoking in Parks and Beaches following the Introduction of a Smoke-Free Law



Observational Study Purpose

- 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

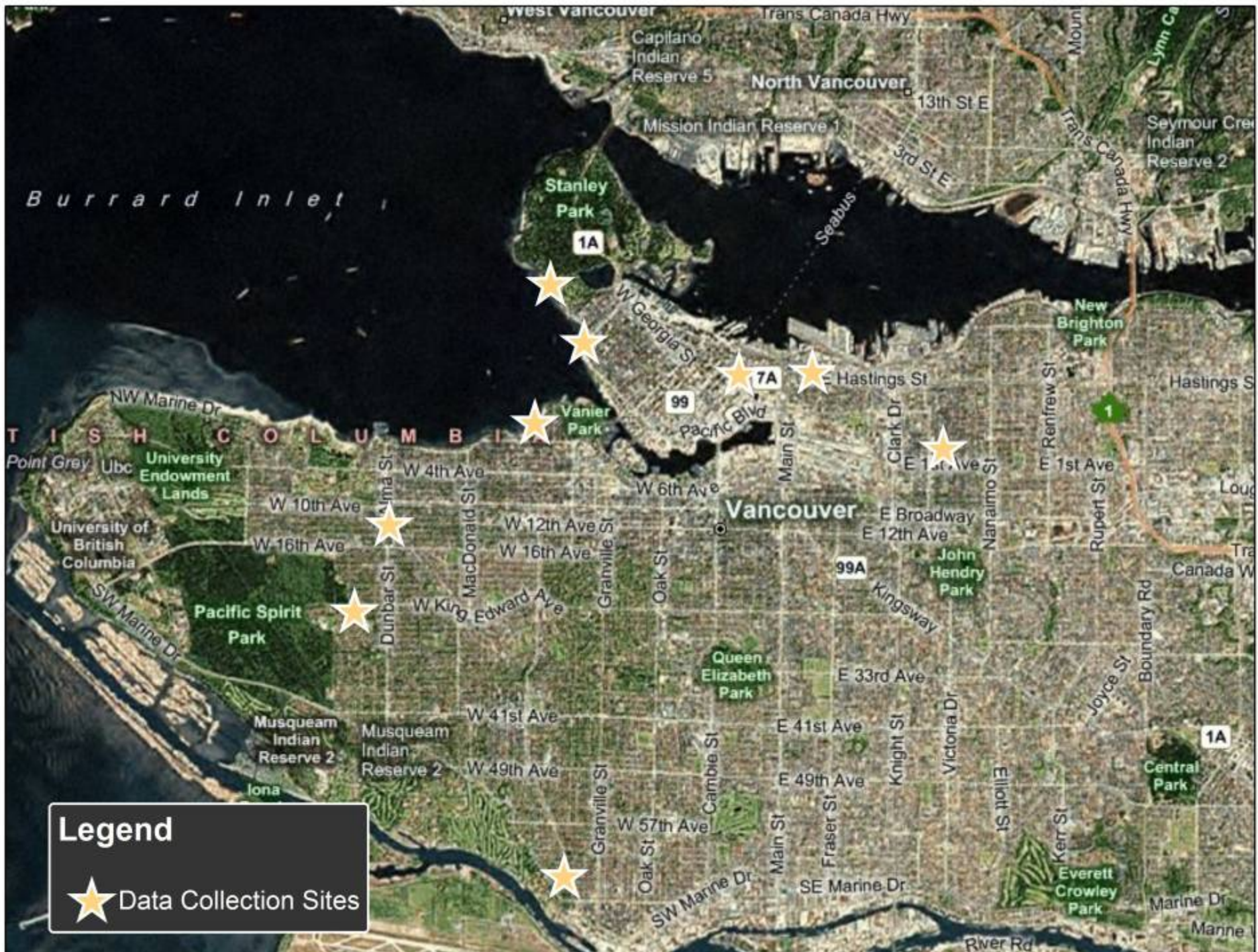
Protocol

- 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





Legend

★ Data Collection Sites

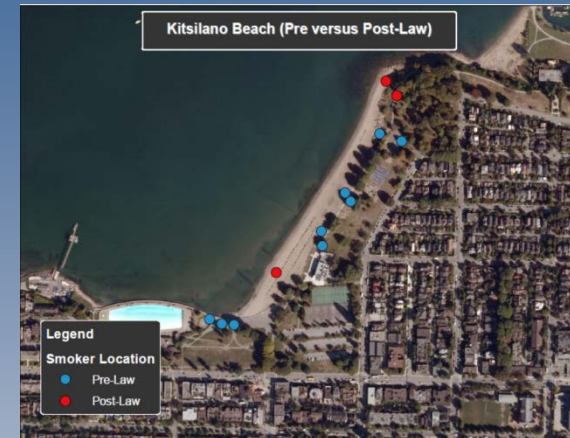
Observed smoking in selected Venues (Prelaw vs. 12-months Postlaw)



Second Beach



English Bay



Kitsilano Beach



Oppenheimer Park

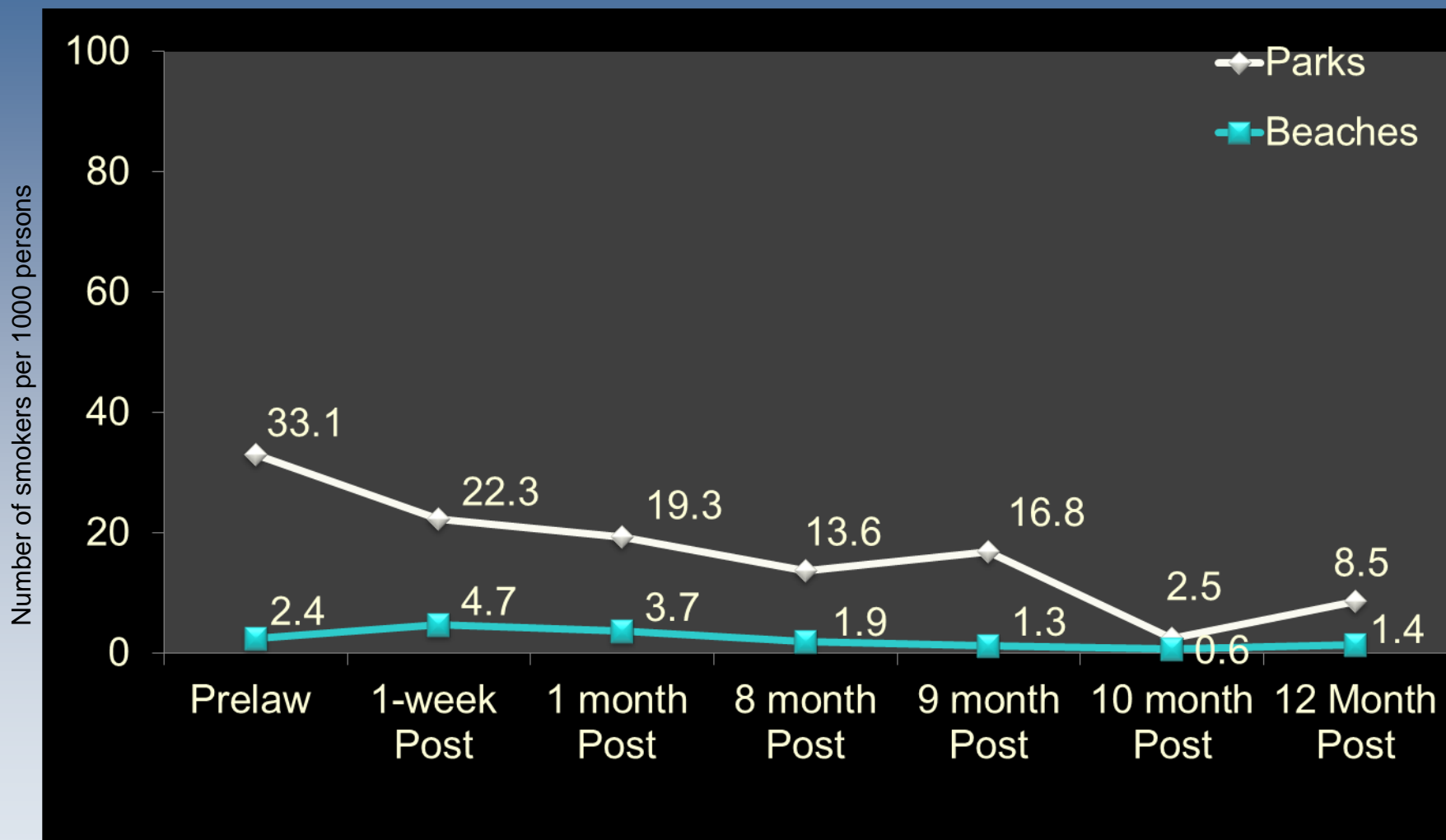


Victoria Park



Victory Square

Changes in the rate of observed smokers in selected parks and beaches (pre-law to 12-month postlaw)



Beaches = ($F=6.2$ ($df=6,11$), $p=.01^*$) Parks = ($F=2.5$ ($df=6,11$), $p=.1$)

Observational Study Dissemination

- Preliminary results have been presented at:
 - National Conference on Tobacco or Health, Toronto, November 2011
 - World Conference on Tobacco or Health, Singapore, March 2012.
- Paper detailing the analysis for 2010 and 2011 currently submitted to *Health & Place*.

Vancouver Smoke-Free Law in Parks and on Beaches Population Survey



Purpose

- To understand self-reported perceptions, attitudes, and behaviour changes in response to a smoke-free policy in parks and beaches in Vancouver.



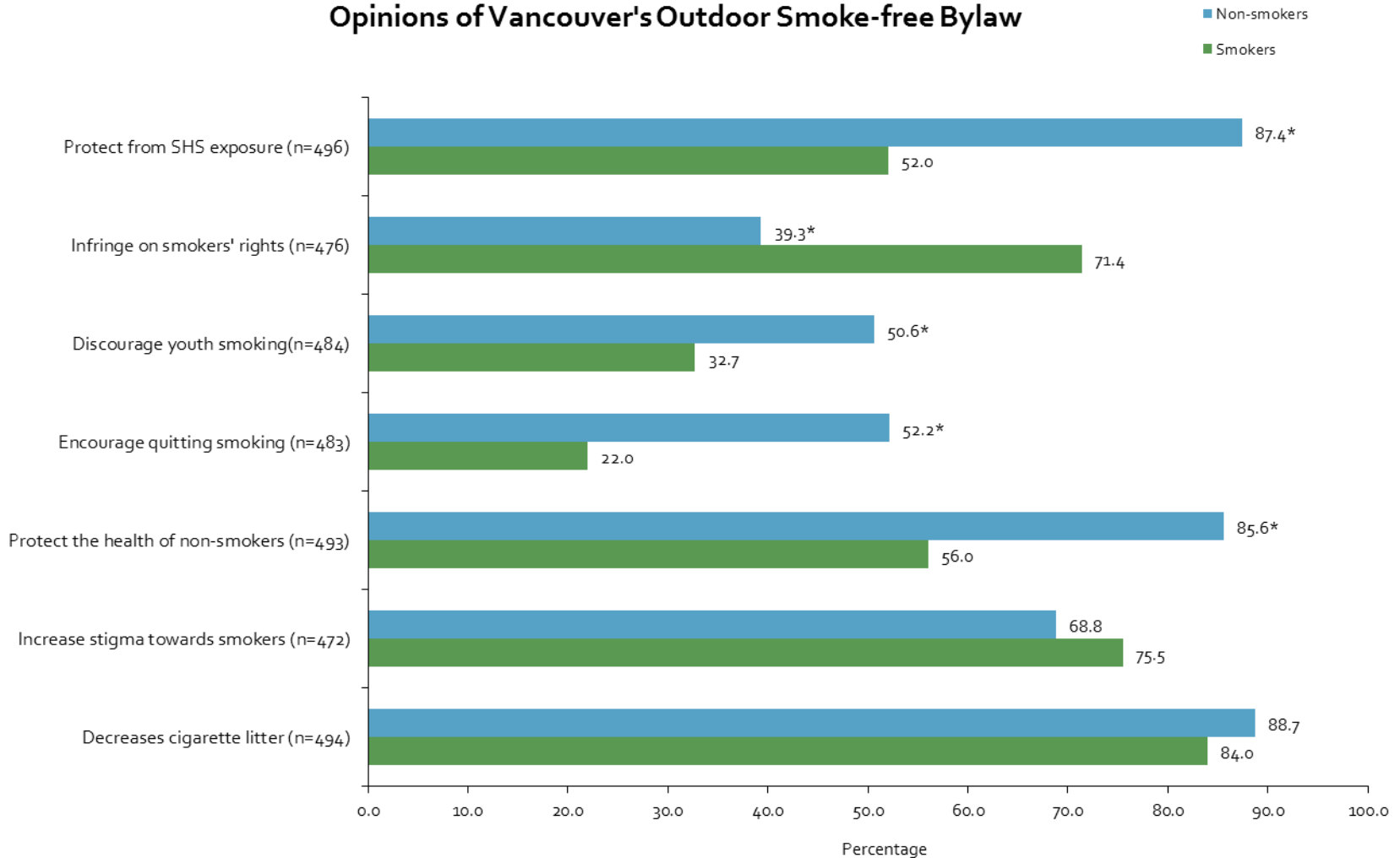
Methods



- Sampling: Random-digital-dialing of residents in Vancouver, BC, through a survey research company (NRG Research Group)
- N = 500
- 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.

Preliminary Results

Opinions of Vancouver's Outdoor Smoke-free Bylaw



Population Survey Dissemination

- Poster detailing preliminary results presented at the Canadian Public Health Association conference, Edmonton, June 2012.
- Paper detailing the findings of the population survey has been submitted to *Health Policy*.

Vancouver Park Ranger Focus Groups



Purpose

- To determine the perceptions of Vancouver Park Rangers on the changes in smoking patterns in parks and beaches and describe the experiences of enforcing the smoke-free by-law



Methods

- Two focus groups (n= 5 - 7 in each group) have been conducted with the Vancouver Park Rangers, one in 2011 and one in 2012 (following implementation of the ban).
- The focus groups were digitally recorded and transcribed verbatim.
- Data will be analyzed thematically.
- These data will be used in a paper discussing enforcement of the bylaw, including implications for the bylaw enforcement officers and descriptions of their experiences.

Assessment of Policy Context



Source: 24 Hours <http://vancouver.24hrs.ca/News/local/2011/08/28/18610831.html>

Overview

- The policy analysis examines the development, adoption and implementation of the smoking ban in Vancouver and draws some comparisons to experiences with similar bylaws in Kelowna, Surrey and Penticton, BC.



Theoretical Framework

Informed by 3 approaches:

1. **Sabatier's Advocacy Coalition Framework (1988, 2007)** – stresses policy learning
2. **UK Overseas Development Institute's research-policy framework (Crewe & Young 2002)**
 - stresses context, evidence, links
3. **Equity-focused Health Impact Assessment (Mahoney et al. 2004)** – stresses incorporating equity lens

All three address approaches view policy development as a process of knowledge exchange and hence look at what evidence is mobilized, by whom, and for what purposes.

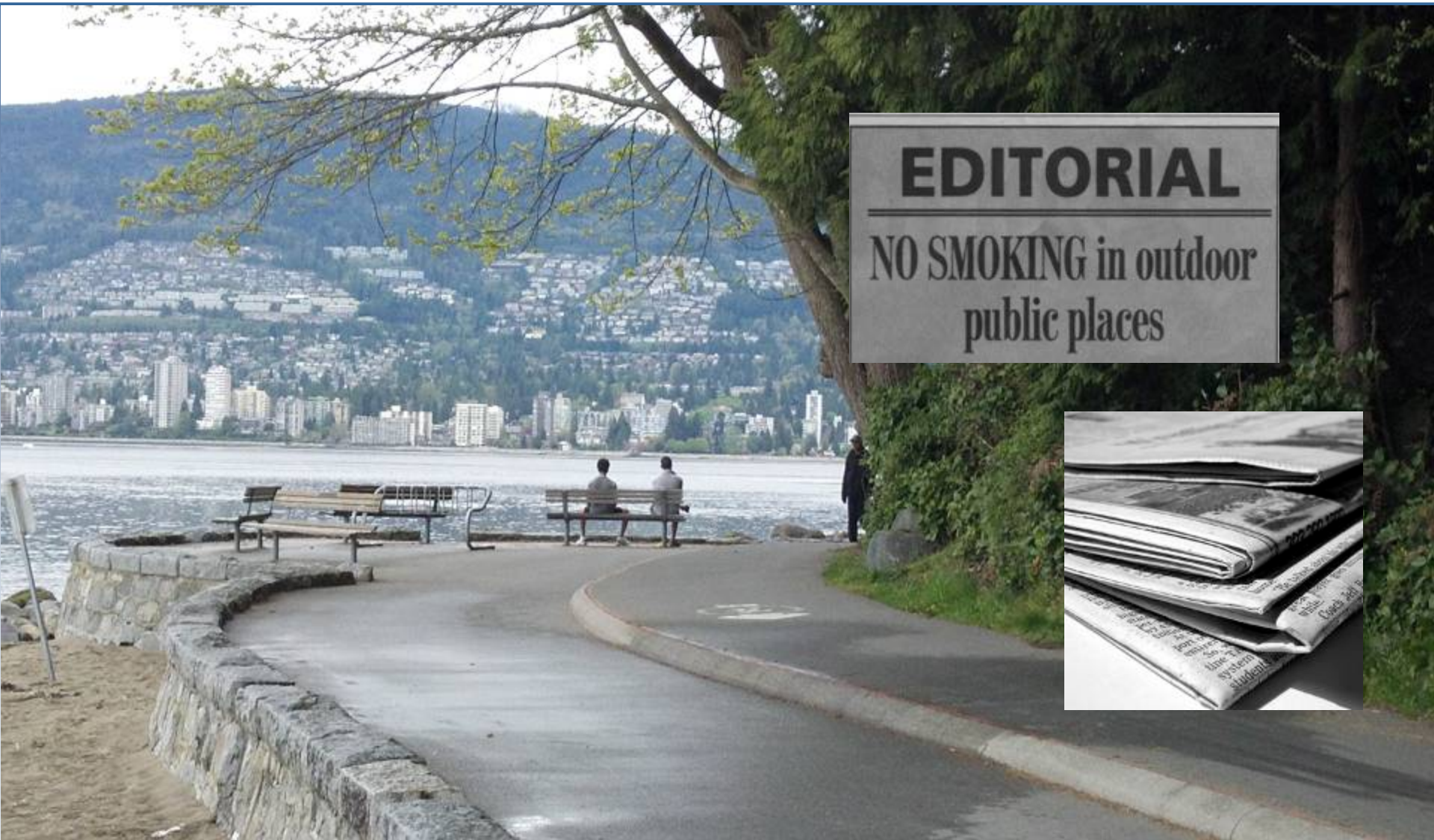
Key informant interviews

- 8 key informant interviews have been carried out in Vancouver.
- Research Assistants have been trained to carry out further interviews in comparator jurisdictions.
 - 4-6 in Kelowna and Surrey
 - 1-2 in Penticton
- Data will be used to inform journal article examining the factors influencing the development and implementation of outdoor smoke-free policies.

An Evolving Context



Media Analysis



Background and Purpose



- Media plays a significant role in policy making as a mechanism of information dissemination and in shaping public opinion
- Purpose of this component is to assess the potential effects the media may have had on public opinion regarding the smoke-free policy

Methods

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 2012

Approach

- Agenda Setting and Framing Theories

Preliminary Results

- Coverage of Vancouver's smoke-free policy was highest when the ban was announced, and to a lesser extent, prior to its implementation.
- This implies that the potential for agenda setting effects of news media was greatest when the ban was announced to the public.
- General coverage of the smoke-free policy focused on health reasons for the ban, increasing the potential for the public to place importance on health as the salient issue regarding smoking regulation.
- News articles, which made up over half the sample, identified health and environmental factors as the primary reasons for the need for smoke-free policy.
- Letters to the editor, however, were largely focused on issues related to individual rights and concerns about the regulation of public spaces.

Media Analysis Dissemination

- Poster of preliminary results presented at Canadian Public Health Association conference, Edmonton, June 2012.
- Paper being developed for journal submission.



Other Data Sources – Beach Litter

- Purpose – to determine the changes in smoking-related litter on the beaches.
- Data obtained from the Great Canadian Shoreline Cleanup, both pre- and post- ban.
- The litter data will be analyzed to determine changes in smoking-related litter on Vancouver beaches.
- Frequencies of total cigarette butts per beach count data will be reported by year.



<http://shorelinecleanup.ca/en>

Other Data Sources - By-Law Citations

- Purpose - 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-March 2012
- Frequencies of citations will be assessed by month and by venue of citation (low socioeconomic venue vs. high socioeconomic venue).
- Chi-square analysis will be employed to determine citation frequency by venue of citation.

*Vancouver outdoor smoke-free bylaw enforcement statistics
(September 2010-March 2012)*

	2010	2011	2012
Voluntary compliance	723	6274	23
Formal verbal warning		20	
Written warning		61	
MTI	1	42	



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Questions? Comments?

