



The Economics of Smoke-Free Air Policies

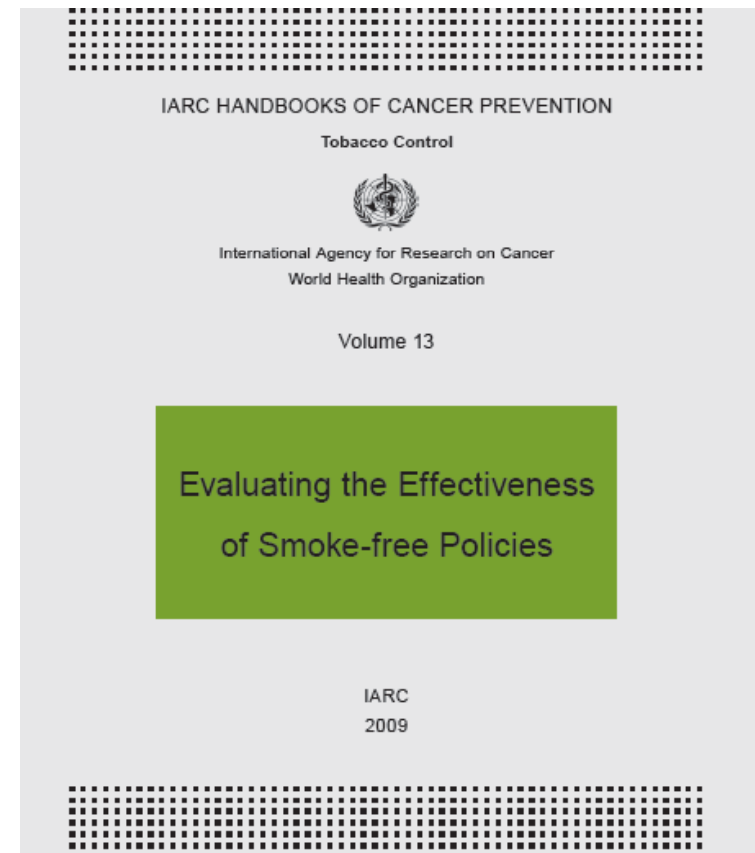
**Frank J. Chaloupka
University of Illinois at Chicago**

**Tobacco Control Network Webinar
September 15, 2010**




Overview

- Costs of Smoking to Business
 - Health care
 - Lost productivity
 - Maintenance, cleaning, etc.
- Economic impact of smoke free policies
 - Oppositional arguments
 - Types of studies
 - Key findings



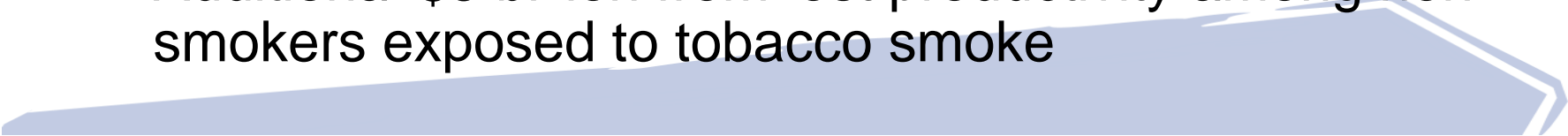


Costs to Business

- Health Care Costs
 - Account for about 1/6 of US gross domestic product
 - Rising at twice the rate of inflation and wages
 - Over \$8,300 per employee in health insurance costs
 - Smoking-Attributable Health Care Costs
 - \$96 billion per year, 2001-2004
 - Up to 15 percent of total health care spending
 - Over \$2,250 per smoker
 - Additional \$5+ billion for non-smokers exposed to tobacco smoke
- 

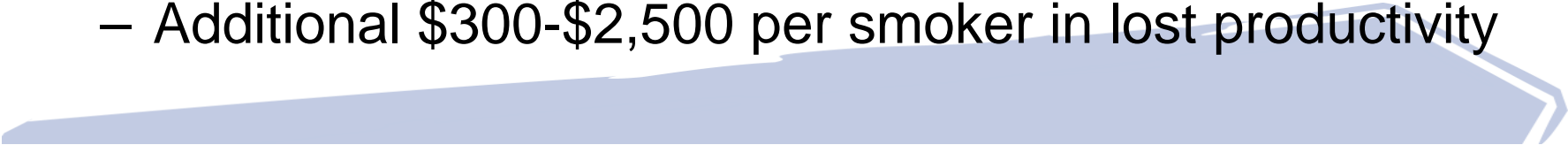


Costs to Business

- Lost Productivity – Deaths from Smoking
 - According to CDC/SAMMEC:
 - About 400,000 premature deaths per year from smoking
 - Almost 50,000 more from exposure to tobacco smoke
 - Over 5 million years of life lost from premature death
 - Lost Productivity Costs
 - From premature deaths:
 - \$96.8 billion per year, 2001-2004
 - Additional \$5 billion from lost productivity among non-smokers exposed to tobacco smoke
- 




Costs to Business

- Lost Productivity - absences
 - Smokers absent from work 7.7-10.7 days per year more than non-smokers
 - Additional \$1,200-\$1,700 per smoker in lost productivity
 - Costs from non-smoker absences due to illnesses caused by exposure to tobacco smoke
 - Lost Productivity - smoking breaks
 - Estimated 4 to 30 minutes per day in sanctioned and unsanctioned smoking breaks
 - Additional \$300-\$2,500 per smoker in lost productivity
- 




Costs to Business

- Higher insurance premiums
 - Health insurance premiums up to 50% higher
 - Life insurance: \$90 more per smoker per year for \$75,000 life insurance policy
 - Fire/hazard insurance: \$11-\$21 higher per smoker
 - Higher cleaning and maintenance costs
 - EPA estimated at \$4.8 billion in 1994 (\$7.0 billion in current dollars)
 - \$305 per 1,000 SF of warehouse space
 - \$728 per 1,000 SF of office space
- 




Costs to Business

- Potential litigation costs
 - Costs from non-smoking employees seeking compensation for diseases, lost productivity due to exposure in the workplace
 - Discrimination lawsuits from exposed non-smokers sensitive to tobacco smoke
 - Hundreds of cases with widely varying payouts in the US and other countries
- 




Why not go smoke-free?

- Fears about lost revenues due to loss of business from smoking patrons
 - Less frequent and/or shorter visits
 - Smokers take business to businesses where smoking is allowed (e.g. in nearby jurisdictions)
 - Fueled by tobacco industry “evidence” of harmful economic impact
 - Fails to account for increased business from non-smokers who enjoy smoke-free environment
- 




Why not go smoke-free?

- Potential problems with smoker discrimination challenges
 - Exacerbated by state “smokers’ rights” laws in 29 states
 - Do not appear to conflict with smoke-free policies
 - Lack of awareness about costs from smoking and non-smoker exposure to tobacco smoke
 - Much more known today about health consequences of exposure to tobacco smoke
 - Knowledge about how much smoking costs businesses is less widespread
- 




Why not go smoke-free?

- Costs of going smoke-free
 - Costs of enforcement seem limited given relatively high compliance
 - Costs of creating and maintaining smoking rooms/lounges for smoking employees
 - Lost productivity from smokers taking more/longer smoking breaks
 - Costs of providing smoking areas for smoking patrons
 - Separately ventilated or free-standing
 - Accommodating smoking will cost considerably more than going completely smoke free
- 



Economic Impact of Smoke-Free Policies


- Adoption, diffusion, and increasing comprehensiveness of smoke-free policies provide many “natural experiments” for researchers to assess
 - Local, state, national policies
 - Restrictions vs. smoking bans
 - Covering increasing number of venues
 - Many studies over past 20 years
 - Need to sort out the good from the bad
 - Nearly all focus on impact on hospitality industry
- 



Economic Impact of Smoke-Free Policies

Good or bad?

Researchers in Chicago interviewed selected bar and restaurant owners about the anticipated impact of the smoking ban that will go into effect later this year. The majority of owners indicated that they expected the ban to have a negative impact on their businesses, suggesting that smokers will take their business to restaurants and bars in nearby suburbs where smoking was allowed.






Economic Impact of Smoke-Free Policies

Good or bad?

Researchers in Ireland observed that dozens of pubs closed following the adoption of the country's comprehensive ban on smoking in public places and workplaces, that included bars and restaurants, leading them to conclude that the smoking ban was bad for business.






Economic Impact of Smoke-Free Policies

Good or bad?

Casino owners in Illinois reported a sharp drop in revenues in 2008, after observing increases in revenues in previous years. They attribute the drop in revenues to the state smoke-free air policy that went into effect in January 2008, banning smoking in virtually all public places, including casinos and horse tracks.




Economic Impact of Smoke-Free Policies

Good or bad?

Researchers examined sales tax revenue data from bars and restaurants in 12 communities that adopted smoke-free restaurant and bar policies, along with 12 comparable communities that allowed smoking. Using data from two years before the policy changes and two years after the changes, controlling for economic conditions in these communities, and using appropriate multivariate regression methods, they concluded that the adoption of the smoke-free policies had no adverse impact on the revenues of businesses affected by the policies.




Economic Impact of Smoke-Free Policies

- Characteristics of a good study
 - Uses objective data on business activity
 - Revenues (sales tax revenues, total revenues)
 - Employment
 - Number of licensed establishments
 - Not expected revenues or owner assessments of how much business is down after policy adoption
 - Or population-based, representative samples
 - Surveys of full population
 - not convenience samples of current patrons or business owners who show up at hearings
- 




Economic Impact of Smoke-Free Policies

- Characteristics of a good study
 - Includes appropriate control group
 - Comparable jurisdictions where similar policy changes have not occurred
 - Includes sufficiently long period before and after the policy change
 - Allows underlying trends to be captured
 - Does not focus on transitory effects as smokers and non-smokers adapt to policy change
 - Accounts for other factors that affect outcomes of interest
 - e.g. underlying economic conditions, population change, etc.
- 



Economic Impact of Smoke-Free Policies


- Characteristics of a good study
 - Uses appropriate statistical methods
 - multivariate regression analyses
 - Tests for statistical significance of estimates
 - Good studies will be most likely to be published in peer-reviewed journals
 - Pay attention to source of funding for study
- 

Summary of Existing Studies (as of 1/31/08)

Type of data	Methodological quality	Peer reviewed?	Reported a negative impact?		Total
			No	Yes	
Official reports of sales, employment or related measures (n=86)	Meet criteria for methodologically sound studies (n=49)	<i>Yes (n =21)</i>	20	1	49
		<i>No (n=28)</i>	27	1	
		<i>Total for studies meeting all four criteria (n=49)</i>	47	2	
	Met some of but not all criteria for methodologically sound studies (n=37)	<i>Yes (n=3)</i>	3	0	37
		<i>No (n=34)</i>	15	19	
		<i>Total for studies meeting some of criteria (n=37)</i>	18	19	
		Subtotal	65	21	86




Economic Impact of Smoke-Free Policies

- A few examples:
 - Glantz and Smith (1994, 1997) compared 15 CA and CO smoke-free communities with matched communities with no restrictions
 - Included data for at least one year following policy adoption
 - Appropriate multivariate statistical methods
 - Objective sales tax data
 - Controlled for trends, other factors
 - Concluded that policies had no adverse impact on restaurant or bar revenues
- 



Economic Impact of Smoke-Free Policies


- A few examples:
 - Bourns and Malcomson (2001) study of Ottawa's ban on smoking in restaurants, bars and pubs
 - Appropriate multivariate statistical methods
 - Objective employment data (employment, unemployment insurance claims)
 - Controlled for trends, other factors
 - Concluded that employment rose, unemployment claims fell following the ban, despite overall rise in unemployment
- 

Summary of Existing Studies (as of 1/31/08)

Type of data	Methodological quality	Peer reviewed?	Reported a negative impact?		Total
			No	Yes	
Survey data (n=79)	Patron/consumer surveys (n=34)	<i>Yes (n=9)</i>	8	1	34
		No (n= 25)	19	6	
		<i>Total consumer</i>	27	7	
	Owner/Manager surveys (n=45)	<i>Yes (n=10)</i>	9	1	45
No (n= 35)		10	25		
		<i>Total owner/manager (n=45)</i>	19	26	
		Subtotal	46	33	79



Economic Impact of Smoke-Free Policies

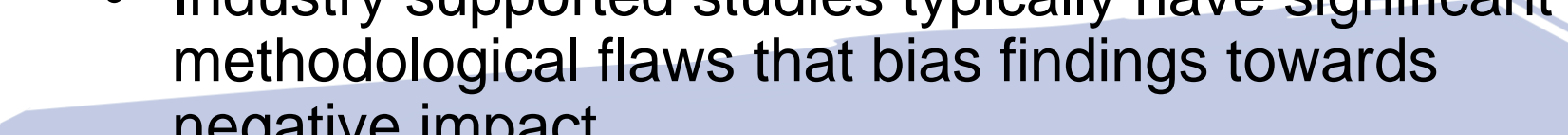
- A few examples:
 - Hyland and Cummings (1999) analysis of New York city's 1995 ban on smoking in restaurants with 35+ seats
 - Representative sample of restaurant owners (both small and large)
 - Asked about changes in business following the policy change
 - Found same patterns for small and large businesses
 - Conclude that the smoking ban did not adversely affect the restaurants covered by the ban
- 

Economic Impact of Smoke-Free Policies

- A few examples:
 - KPMG Peat Marwick (2001) report on impact of Hong Kong smoking ban in restaurants, cafes, and bars
 - Convenience sample of current patrons
 - Asked about how they expected their dining/drinking out patterns to change following the ban
 - Concluded that ban would lead to 10% drop in business
 - Did not account for increased business from others deterred by smoke-filled environment
 - Did not resurvey to find out if actual patterns changed following the ban



Summary and Conclusions

- Smoking imposes considerable costs on businesses
 - increased health care costs, lost productivity, higher insurance premiums, and increased maintenance/cleaning costs
 - Going completely smoke-free less costly than trying to accommodate smoking employees and/or patrons
 - Methodologically sound studies consistently demonstrate that such policies have no adverse impact on businesses
 - Industry supported studies typically have significant methodological flaws that bias findings towards negative impact
- 



For More Information

fjc@uic.edu

www.impacteen.org

www.iarc.fr/en/publications/pdfs-online/prev/handbook13

