

# **Reducing smoking in general and high risk subgroups**

**May 21**

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# **Global picture of tobacco epidemic**

- **WHO report on the global tobacco epidemic, 2008\***
- **100 million died in the 20th century from tobacco**
- **currently 5.4 million deaths every year world-wide**
- **“ leading cause of preventable death and disease**
- **It is a risk factor for six of the eight leading causes of death, including heart disease and several cancers and lung diseases.”\*\***
- **\*WHO report on the global tobacco epidemic, The MPOWER package, World Health Organization, 2008; \*\*WHO Equity, Social Determinants and Public Health Programmes p199**

# **Unless action is taken**

- **by 2030 there will be more than 8 million deaths every year world-wide**
- **by 2030 more than 80% of tobacco -- will be in the developing countries**
- **1 billion estimated deaths during the 21st century**

# **Dr Margaret Chan , WHO Dir. Gen.**

- **“Reversing this entirely preventable epidemic must now rank as a top priority for public health and political leaders in every country of the world”\***
- **\*WHO report on the global tobacco epidemic, The MPOWER package, World Health Organization, 2008**

# **Scope of this epidemic**

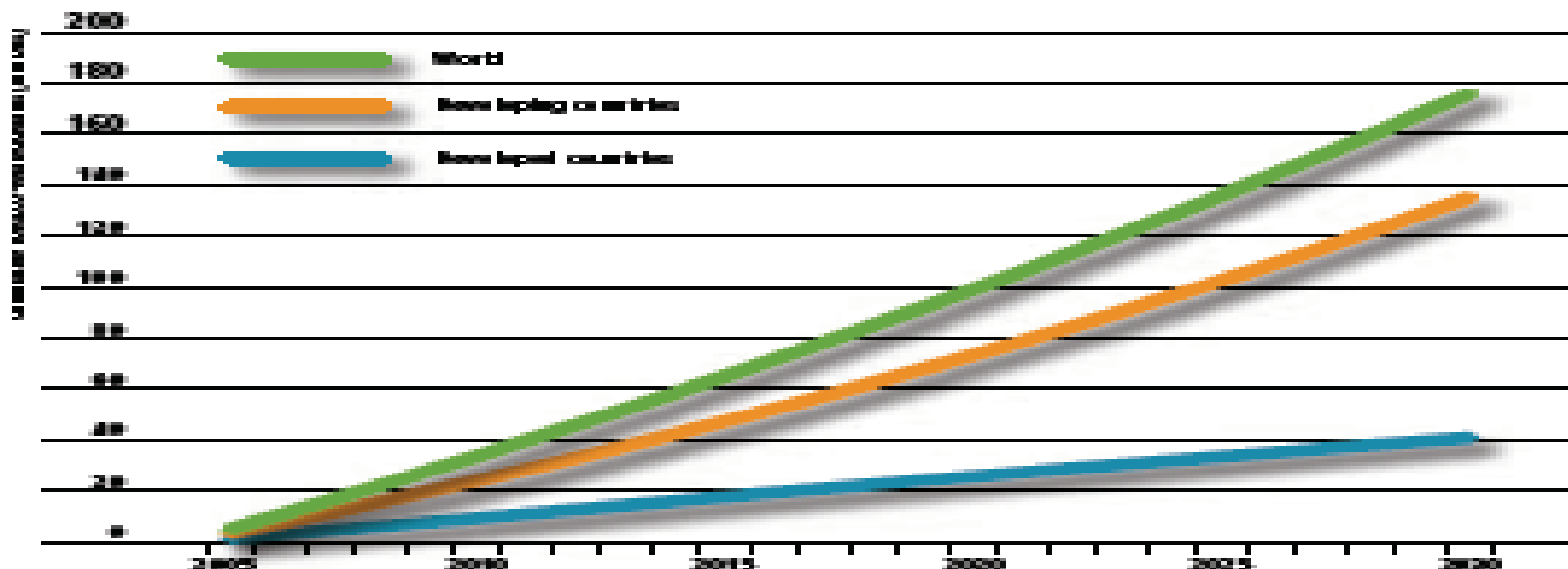
- **“This year's tobacco will kill more than 5 million people, more than tuberculosis, HIV/AIDS, and malaria combined.... The fight against tobacco must be engaged forcibly and quickly - with no less urgencies than the battles against life-threatening infectious diseases.”\***

**\* Dr Margaret Chan , WHO Dir. Gen.**

# Death toll increase from 2005-30

## **TOBACCO WILL KILL OVER 175 MILLION PEOPLE WORLDWIDE BETWEEN NOW AND THE YEAR 2030**

### Cumulative tobacco-related deaths, 2005–2030

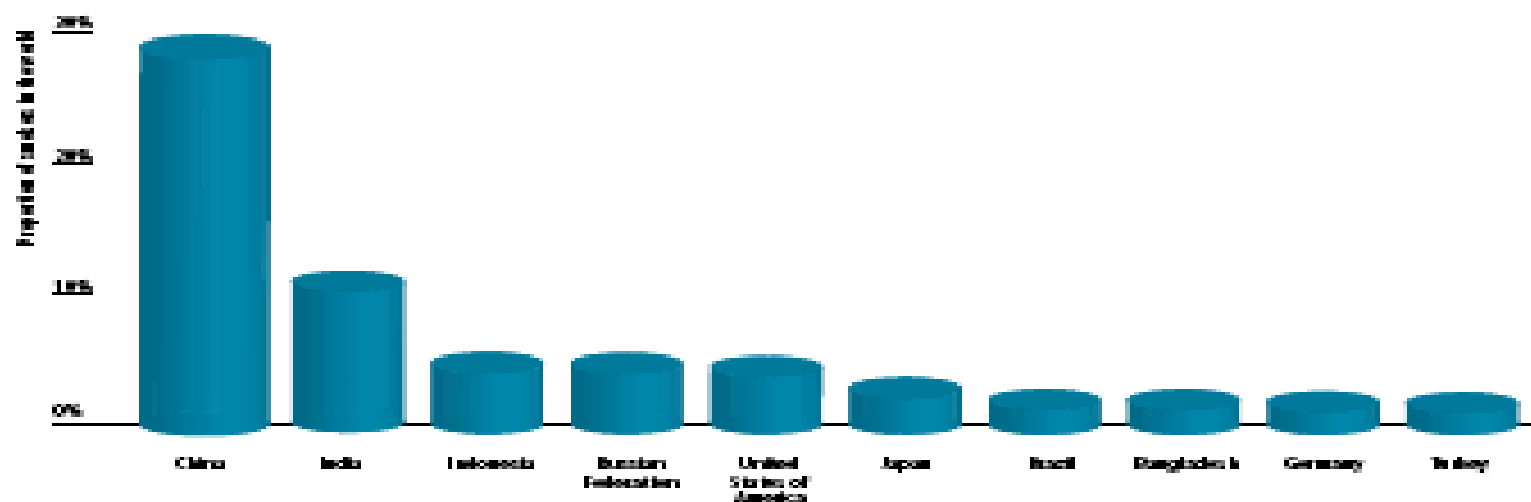


Source: Mathers CD, Lencastre D. Projections of global mortality and burden of disease from 2002 to 2030. *N Engl J Med*. 2008; 356(1):111-121.

# Countries with high prevalence of smoking

**NEARLY TWO THIRDS OF THE WORLD'S SMOKERS LIVE IN 10 COUNTRIES**

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Source: The number of smokers per country was estimated using adjusted prevalence estimates (see Technical Note II and Appendix B). A limitation of this approach is that adjusted estimates used to estimate the number of smokers are sometimes derived from limited country data, and for some countries large adjustments are needed. In these cases the adjusted estimates can be different from actual surveys reported by countries. Data II prevalence data were obtained from WHO 2010.

# **WHO strategies to reduce tobacco use world-wide**

- **M.P.O.W.E.R**
- **M: Monitor use of tobacco**
- **P: Protect citizens from second-hand smoke**
- **O: Offer help in smoking cessation**
- **W: Warning on the dangers of smoking**
- **E: Enforce ban on tobacco advertising**
- **R: Raise taxes on tobacco products**



# WHO:MPOWER - monitor

- Monitor the success of the five policies
- Inform public of the current state of smoking and its harmful effect
- Show and inform which policies work and which policies not work in different populations or countries
- Should include prevalence, effects of policies, tobacco industry marketing
- Should contain information on age groups, gender, income, geographic and programs for known high risk populations
- Should be financially sustainable.

# P: PROTECT from secondhand smoke

- There is no safe level of SHS
- SHS contributes to heart disease, cancer, and numerous diseases
- Policies to curb SHS helps smokers quit, encourage smokers to smoke out of home, protects children
- Gains weaker if prohibition to SHS policies permits designated smoking area
- Should be enforceable

# O: Offer cessation help

- $\frac{3}{4}$  of smoker who know the effect of tobacco want to quit
- Method to help quit: simple advise, medication, telephone quit line, counseling
- Intervention should be adapted to the needs of the communities
- Incorporate into primary care and all other healthcare sites
- Will only be effective if combined with increase in taxes, bans in advertising, smoke free legislation

# W: Warning about the harm of tobacco

- Most people know that tobacco is a health risk, but underestimate its impact
- Full impact had not been adequately explained
- Lack of knowledge of addictiveness of nicotine
- 1/2 of smokers will lose their lives, but smokers believe they can quit before
- Need to educate the public, especially youths, young adults
- Counter advertisement
- Health warning on packs of cigarettes
- Reduce marketing of tobacco industry

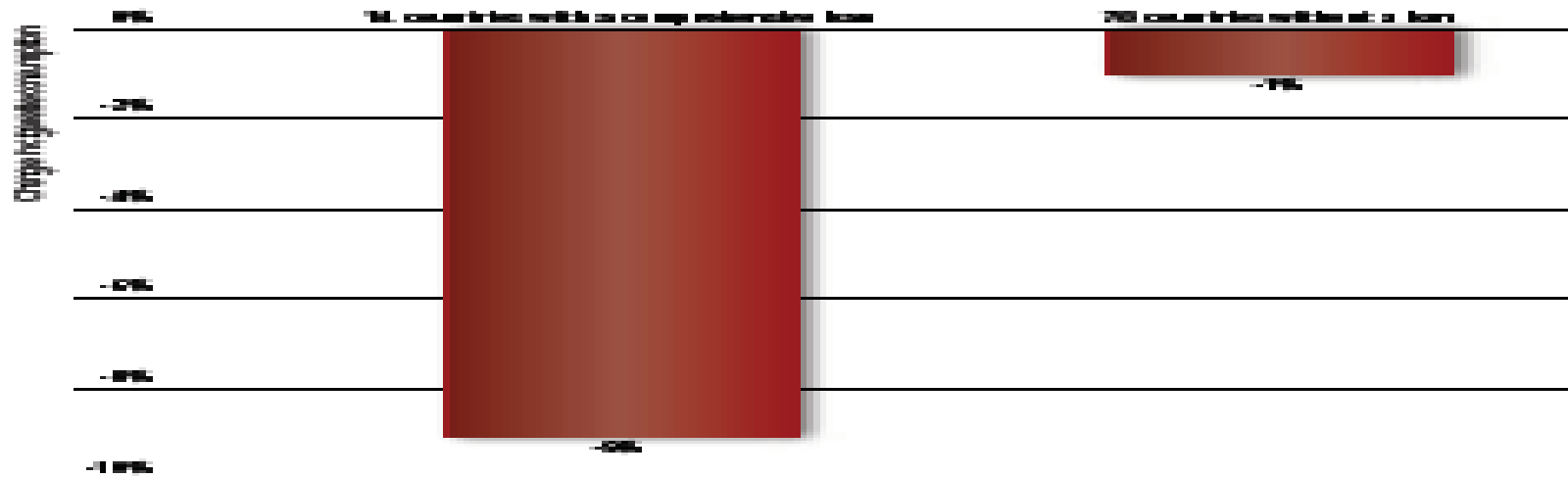
# E: Enforce ban on advertising

- Marketing increase use of tobacco; reduces motives to quit
- Promotes initiation to begin to smoke
- Targets youth
- Normalizes smoking
- Advertisement images of: desirability, energy, glamour, sex appeal
- “Advertisement ban reduces tobacco use among people of all income and educational levels”
- Ibid p. 37

# Ban on advertising

## COMPREHENSIVE ADVERTISING BANS AMPLIFY OTHER INTERVENTIONS

Average change in cigarette consumption 10 years after introduction of advertising bans in two groups of countries



Source: Sarler H. Tobacco advertising and promotion. In: Jha P, Chaloupka F, eds. Tobacco control in developing countries. Oxford, Clarendon University Press, 2000.

# R: Raise taxes

- Most effective measure to reduce smoking, encourage quitting
- 70% increase in price results in 25% reduction
- Increases revenue for tobacco control
- 10% increase causes 4% reduction in developed nations; 8% in developing nations
- Deters use among youth, especially of low socioeconomic status (SES)

# Raise taxes; policies

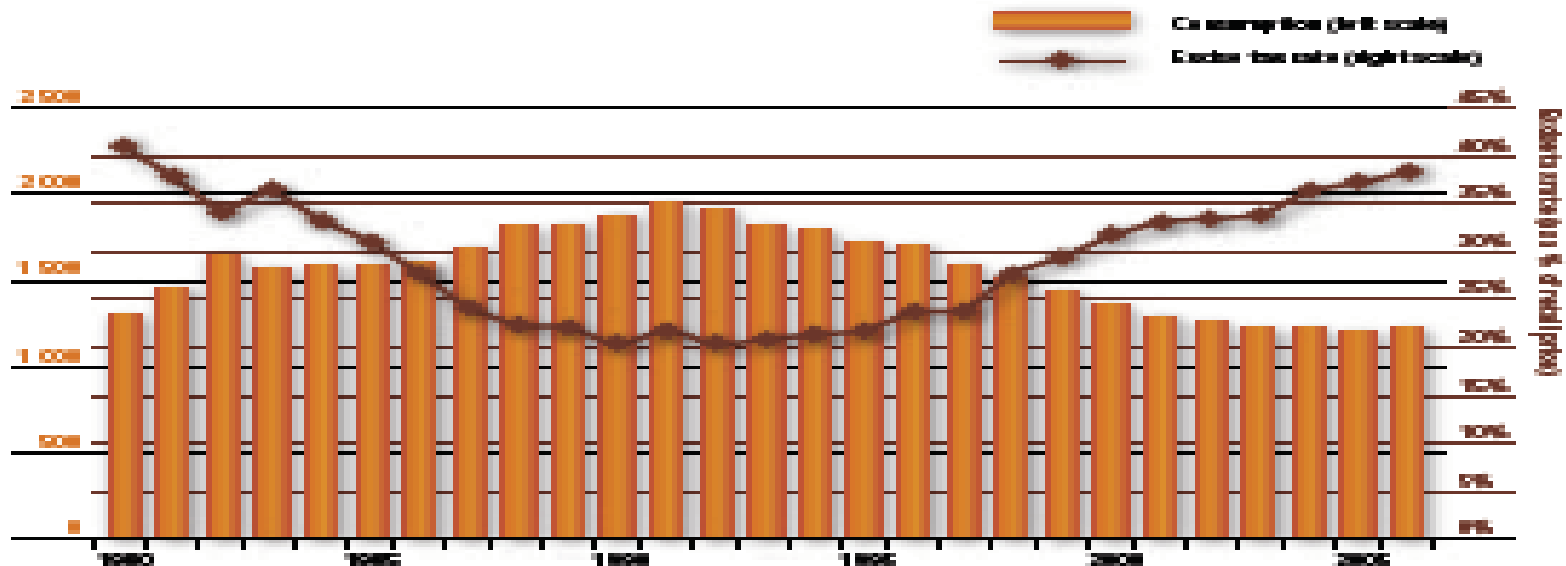
- Most effect is increasing excise tax on amount of tobacco
- Needs to be increased regularly
- Should be applied at the manufacturing level
- Certified with a stamp on every pack to minimize tax evasion



# South Africa and increase excise tax

## TOBACCO TAXES REDUCE CONSUMPTION

Relationship between cigarette consumption and excise tax rate in South Africa



Source: van Walbeek C. Tobacco excise taxation in South Africa: tools for advancing tobacco control in the 21st century: success stories and lessons learned. Geneva, World Health Organization, 2000. Additional information obtained from personal interviews with C. van Walbeek. ([http://www.who.int/tobacco/tax/talesuccess\\_stories/tobacco\\_taxation\\_south\\_africa\\_jan01en.pdf](http://www.who.int/tobacco/tax/talesuccess_stories/tobacco_taxation_south_africa_jan01en.pdf)) accessed 6 December 2007.

# Inequality in national Monitoring of smoking

- No nation has implemented all of the MPOWER measures
- More than ½ of the countries do not have minimum monitoring information
- Only 45% of countries have data on adult, youth prevalence
- Weak data collection from low-middle income countries

# Inequality in nations: Protection from SHS

- Only 5% of world population (16 countries) are protected by effective smoke free laws
- 74 countries out of 179 allow smoking in healthcare institutions/schools
- ½ the world population live in countries whose governments do not protect them for SHS
- " the proportion of high-income countries with smoke-free restaurants (12 of 41, 29%) is **more than three times higher** than the proportion of low- and middle-income countries (and one territory) with similar measures (12 of 139, 9%). " \*
- \* Ibid p. 46.

# Inequalities in nations: Offering help to quit

- Most countries do not help smokers quit
- 9 out of 173 offer highest level of support that are full ranged and partial subsidies medications
- That amount to 5% of world population
- In 39 countries it is impossible to get NRT meds
- No help at all in 22 countries
- Quit lines are available in only 44 nations

# Inequalities on nations: Enforcing bans on advertisement

- Tobacco companies spend billions of \$ on advertisement, promotion and sponsorship (APS)
- Banning APS is effective way to promote health
- Only 20 out of 174 countries have policies on APS or 5% of world population
- 106 have minimal policies
- 54 have no policy in place to ban APS
- Enforcement banning APS is limited or partial with little impact on tobacco use
- Tobacco companies shift around laws on APS

# Inequalities in nations: Raising taxes on tobacco

- Most effective policy at reducing tobacco use
- Increases government revenue
- remains low in most countries
- Is low for other tobacco products (bidis, kreteks and value packs) reducing effectiveness of taxation
- Range of taxation from 152 countries is 0-80% of retail price

# Inequalities in nations: Raising taxes on tobacco

- $\frac{1}{4}$  countries  $<25\%$
- 4 countries or 2% of world population have taxation  $>75\%$
- $\frac{4}{5}$  of high income countries have taxes at  $>50\%$
- Less than  $\frac{1}{4}$  of low-middle income countries tax at  $>50\%$
- South Africa doubled taxes tobacco use declined by 40% due to quitting in youth and low wage earners

# Inequalities in nations: Funding tobacco control

- 89 countries spend \$343 million/yr on tobacco control
- 95% is spend in high income countries
- 90% by the wealthiest 7 countries
- 4% of the total is spend by middle income countries
- 1% is represented by low income countries



# Inequalities in nations: Funding tobacco control

- 70 countries or 2/3 of world population tobacco taxation is 500x higher than spend on tobacco control
- Low income countries – 2 billion people – collect \$13.8 billion but spend 1.5 million or ratio 9100:1
- Middle income countries – 1.9 billion people – collect \$15.7 billion but spend 12.5 million ratio 4200:1
- High income countries collect \$110 billion spend \$321 million 340:1

# Inequalities in nations: Summary

“ only around 5% of the world’s population is covered by any one of the key interventions of effective advertising, promotion and sponsorship bans, smoke-free spaces, prominent pack warnings, protection from deceptive and misleading advertising, promotion and sponsorship, and cessation support. Governments collect more than US\$ 200 billion in tobacco tax revenues and have the financial resources to expand and strengthen tobacco control programmes. Further tobacco tax increases can provide additional funding for these initiatives.” \*

\* Ibid p.56

# Inequalities in nations: Summary

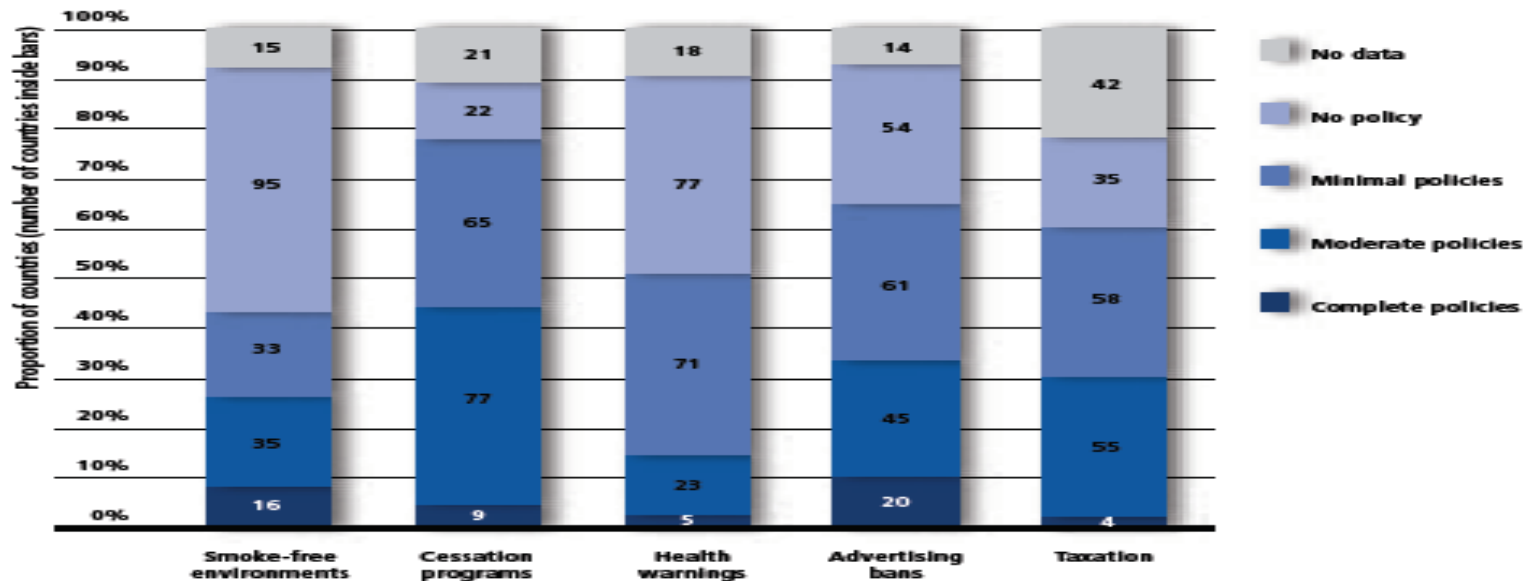
- Tobacco epidemic is making health inequality worse between nations and within countries
- Poor countries will account for 80% of tobacco deaths
- Countries require commitment and policies to implement MPOWER

# Inequalities in nations: Summary

- Most of the world population are not protected from:
- SHS
- Industry APS
- Low taxes that will not reduce smoking
- Do not have sufficient health warning of tobacco
- Not enough help to quit
- Not enough global info on the scope of tobacco epidemic

# Number of nations with MPOWER

## THE STATE OF TOBACCO CONTROL POLICIES IN THE WORLD



\* Note that for taxation, "No policy" implies an excise tax rate 25% or less. For smoke-free policy, "No policy" means no smoke-free legislation or no smoke-free legislation covering either health care or educational facilities.

# Definitions

- **“Lower socio-economic groups”** or **“disadvantaged social groups”** refer to people occupying lower position in social hierarchy, such as those with elementary education, unskilled manual workers, or the poorest 20 or 40 percent of the population
- **“Specific disadvantaged groups”** will sometimes be used to refer to population groups with specific forms of social or material disadvantage, such as lone mothers, long term unemployed and ethnic minorities” \*

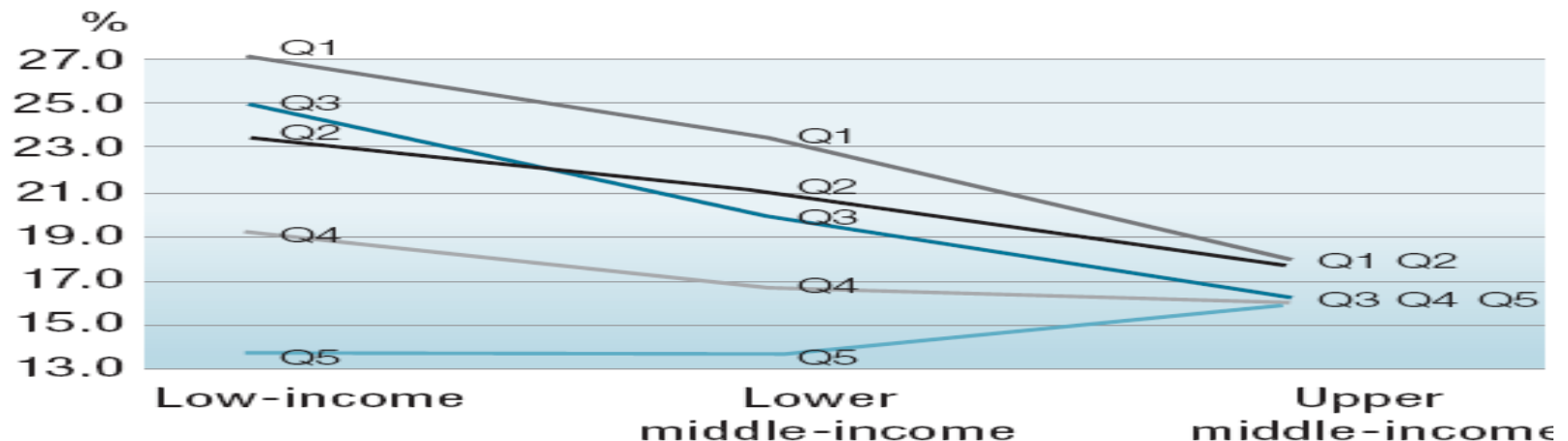
# Inequalities in tobacco use within nation- poverty

- Tobacco use is inversely associated to socioeconomic status (SES)
- Lower SES result in higher tobacco use
- Tobacco use is correlated to income or wealth
- Less so in more developed nations than developing countries\*

• \* WHO: Tobacco use: equity and social determinants p. 200

# Tobacco smoking by income group and income quintile

**FIGURE 11.2** Prevalence of daily tobacco smoking by income group and income quintile



Notes:

1. Q1 to Q5 indicate income quintiles, Q1 being the lowest income group and Q5 the highest income group.
2. The graph was made using average prevalence figures from 44 countries. Prevalence of China and India were removed from these averages to avoid skewed results from their large population weights.

*Source:* Authors' calculation, using World Health Survey data.



# Canada: 1950 smoking prevalence

- 54% of the population smoked
- 68.9% of men
- 38.2% women
- Absolute difference: 30.6%
- Relative difference: 1.8

# Canada: from 1965 smoking prevalence

- 1965-6: 40% of population smoked
- 2010: 17% smoked
- 1965: men 61%, women 38%
- 2010: men 20%, women 14%
- Fasten decline in men 0.9% per year, women 0.5% per year

# Definition:socioeconomic groups (SES) based on education

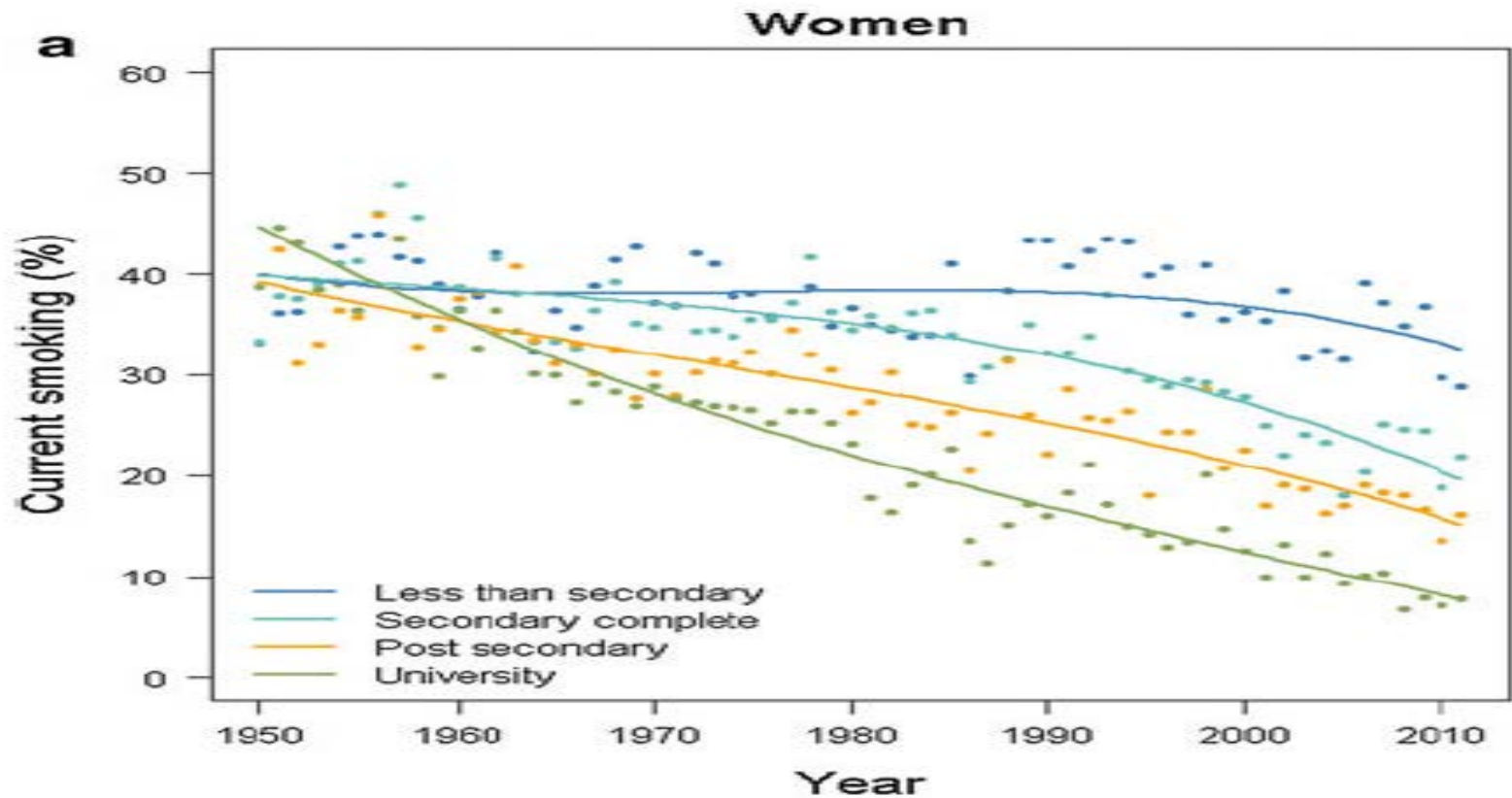
- N1: < secondary education
- N2: completed secondary education
- N3; post secondary diploma or certificate
- N4: university education

# Trends in SES 1950- 2011: women

- N1: 40% (1950) to 38.4 (1986) to **32.6%** (2011)
- N3: 39.9% (1950) to 19.6(2011)
- N4: 44.7% (1950) to 7.7% (2011)

# Canada: Absolute change in smoking: women\*

Corsi et al Cancer Causes Control 2014

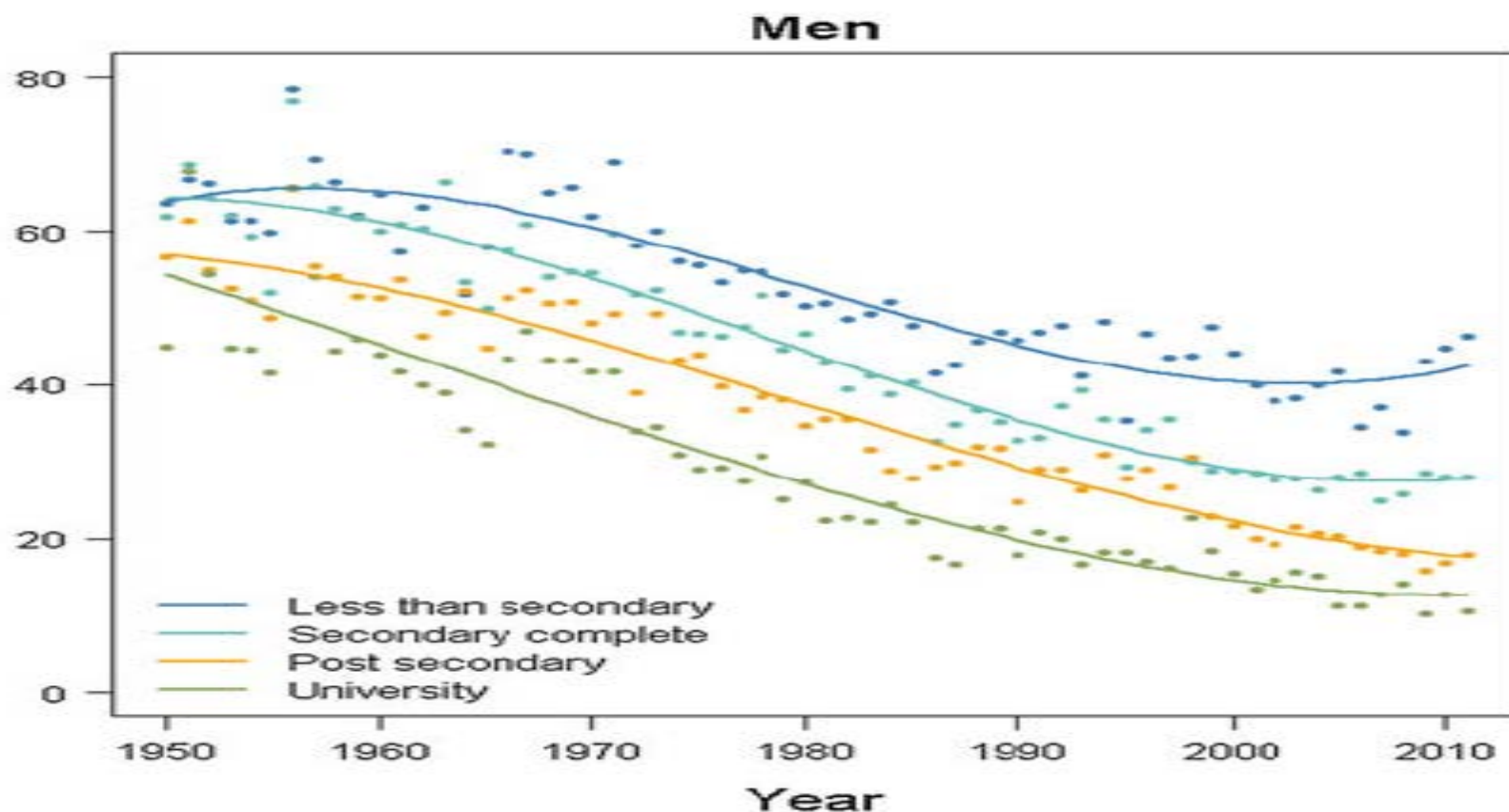


# Trends in SES 1950-2011:Men

- All group showed decline
- N1: 63.9% (1950) to **42.5%** (2011)
- N4: 54.3 % (1950) to 12.6% (2011)

# Canada: Absolute change in smoking: Men\*

Corsi et al Cancer Causes Control 2014



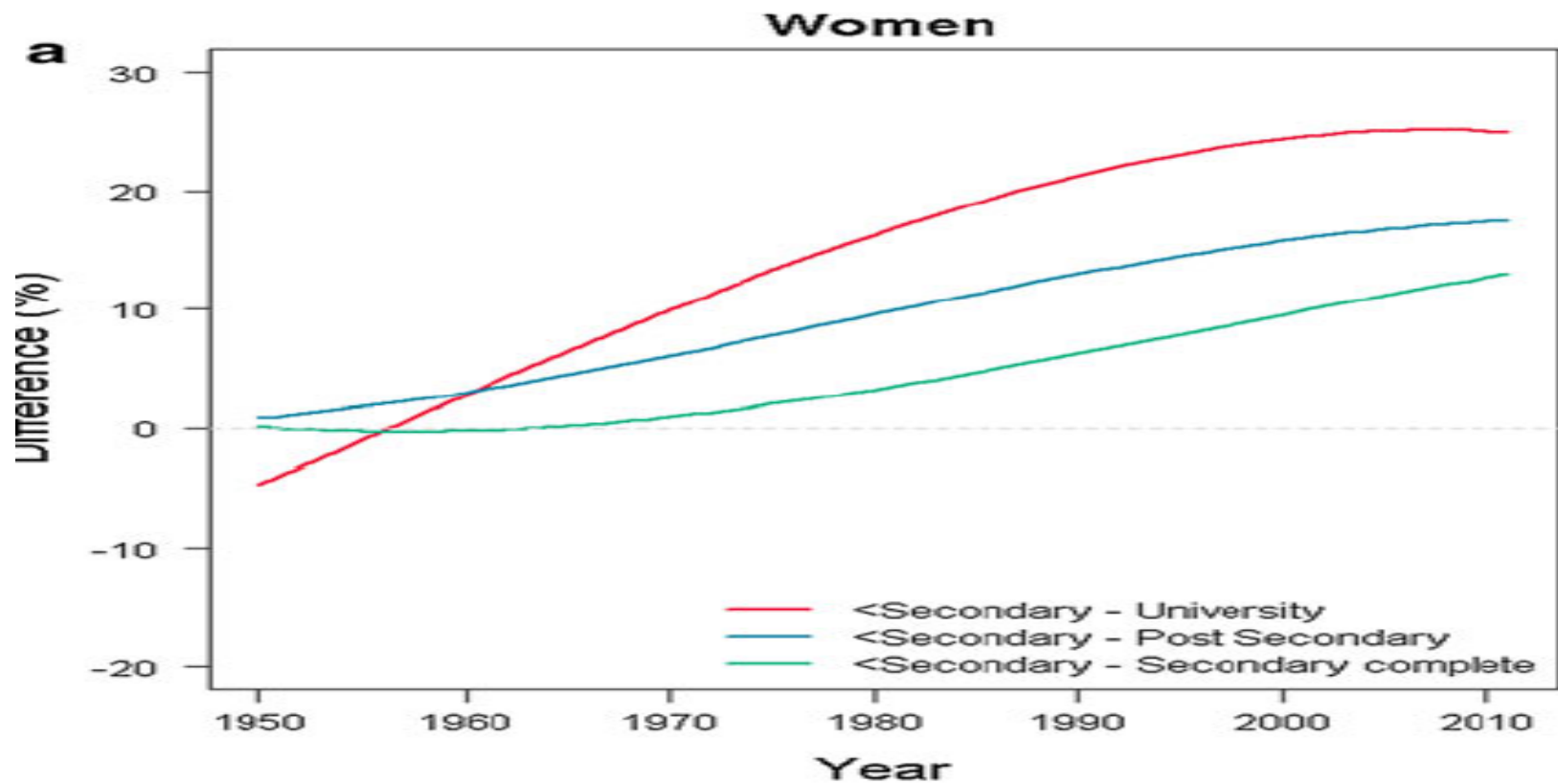
Canada: Absolute difference in education class increase from 1950-2011: women

- Increased most rapidly between N1 and N4
- reduction in difference in recent years



# Canada: Absolute difference 1950-2011: Women\*

Ibid p. 51

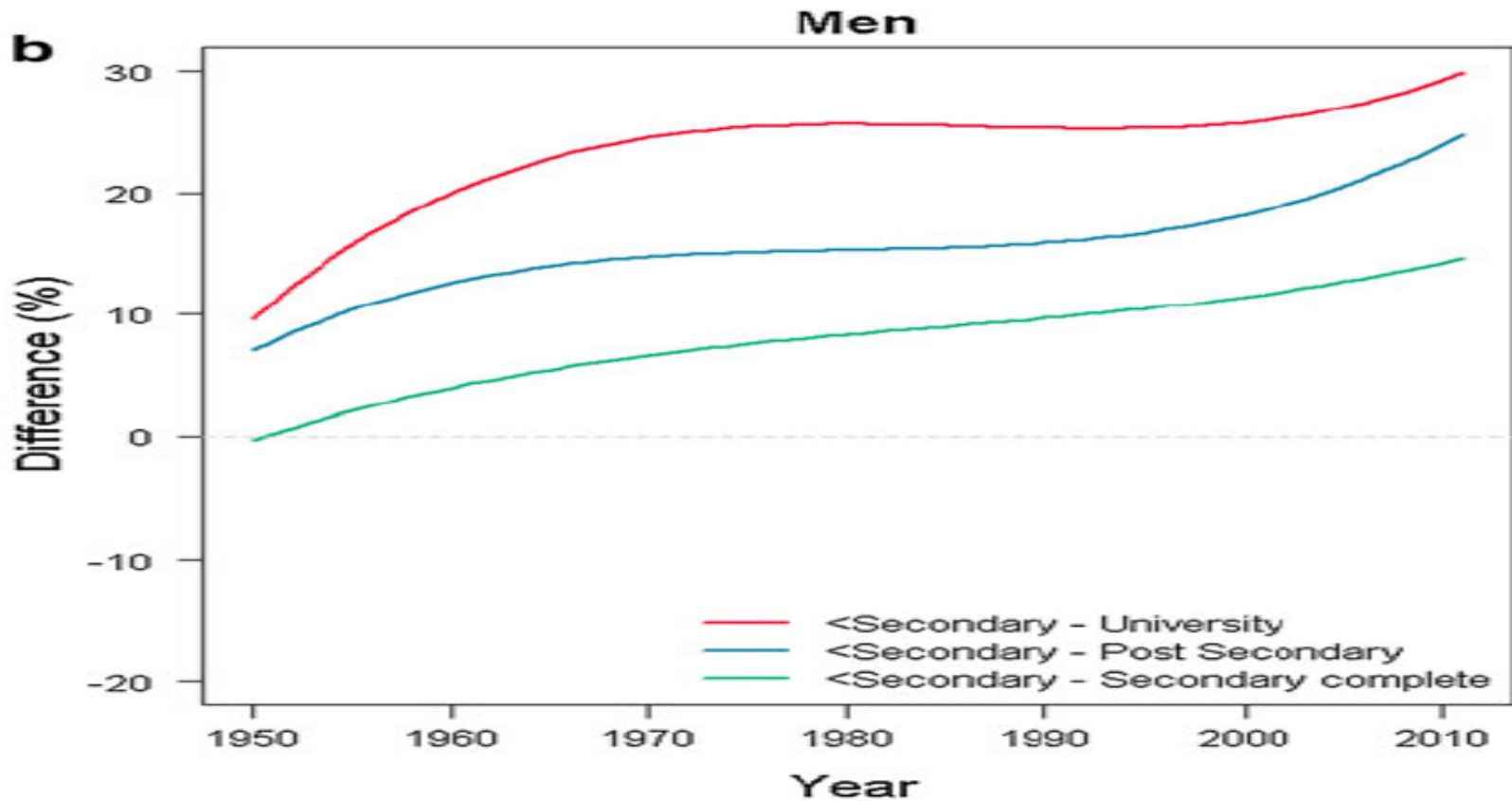


## Absolute difference in education class increase from 1950-2011: men

- Increased from 1950 as general decline occurred in all levels
- Difference N1 –N4: 9.6% (1950); 25.6% (1980); 29.9% (2011)

# Absolute difference 1950-2011: Men\*

Ibid p. 51

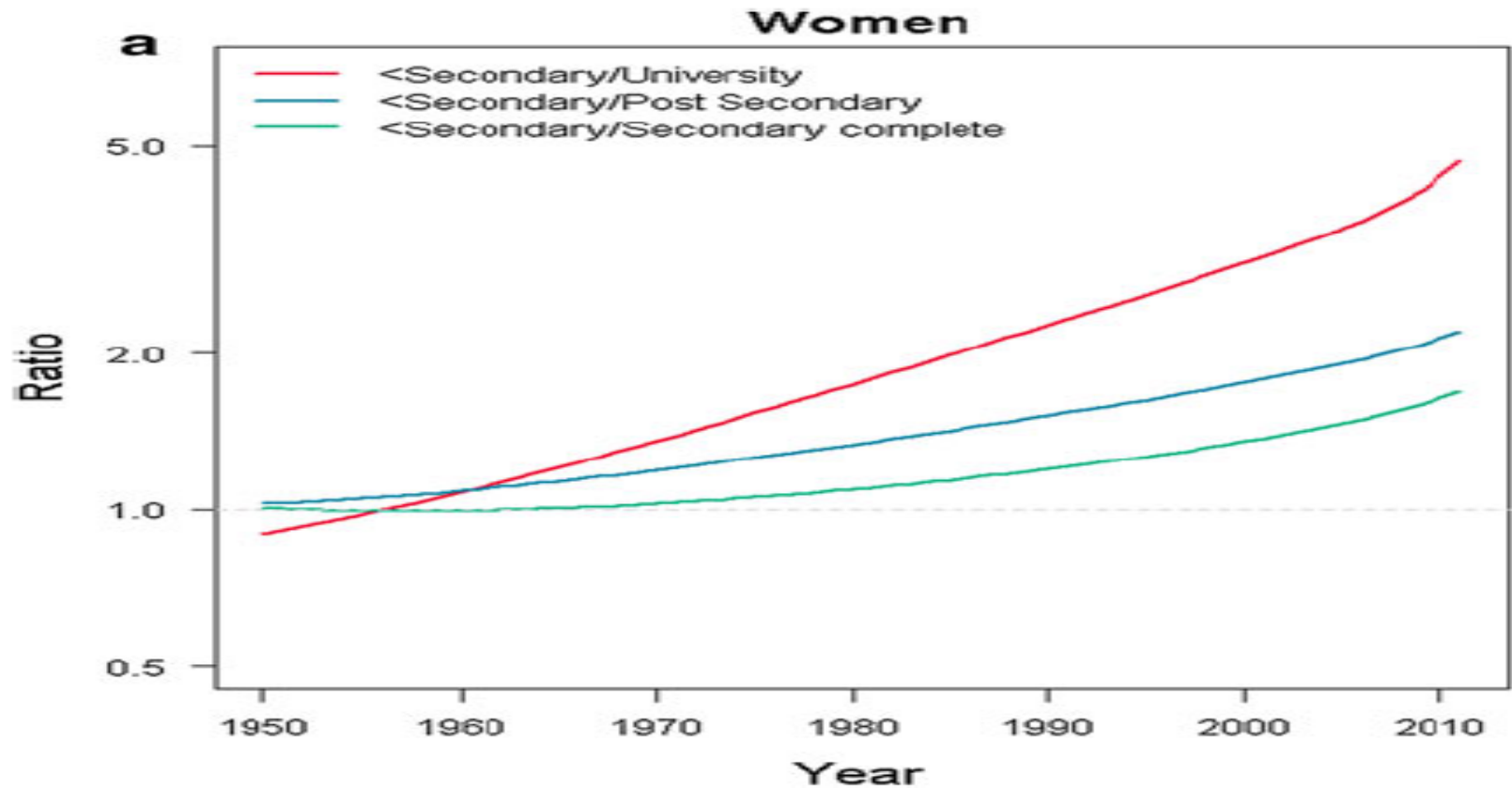


# Relative difference in smoking prevalence

- N1-N4: <1 (1950) to 4.7 (2011)
- “no reduction in relative inequality was seen for any of the educational groups among women”\*

# Estimated relative differences in current smoking between educational groups\*

Ibid p.50

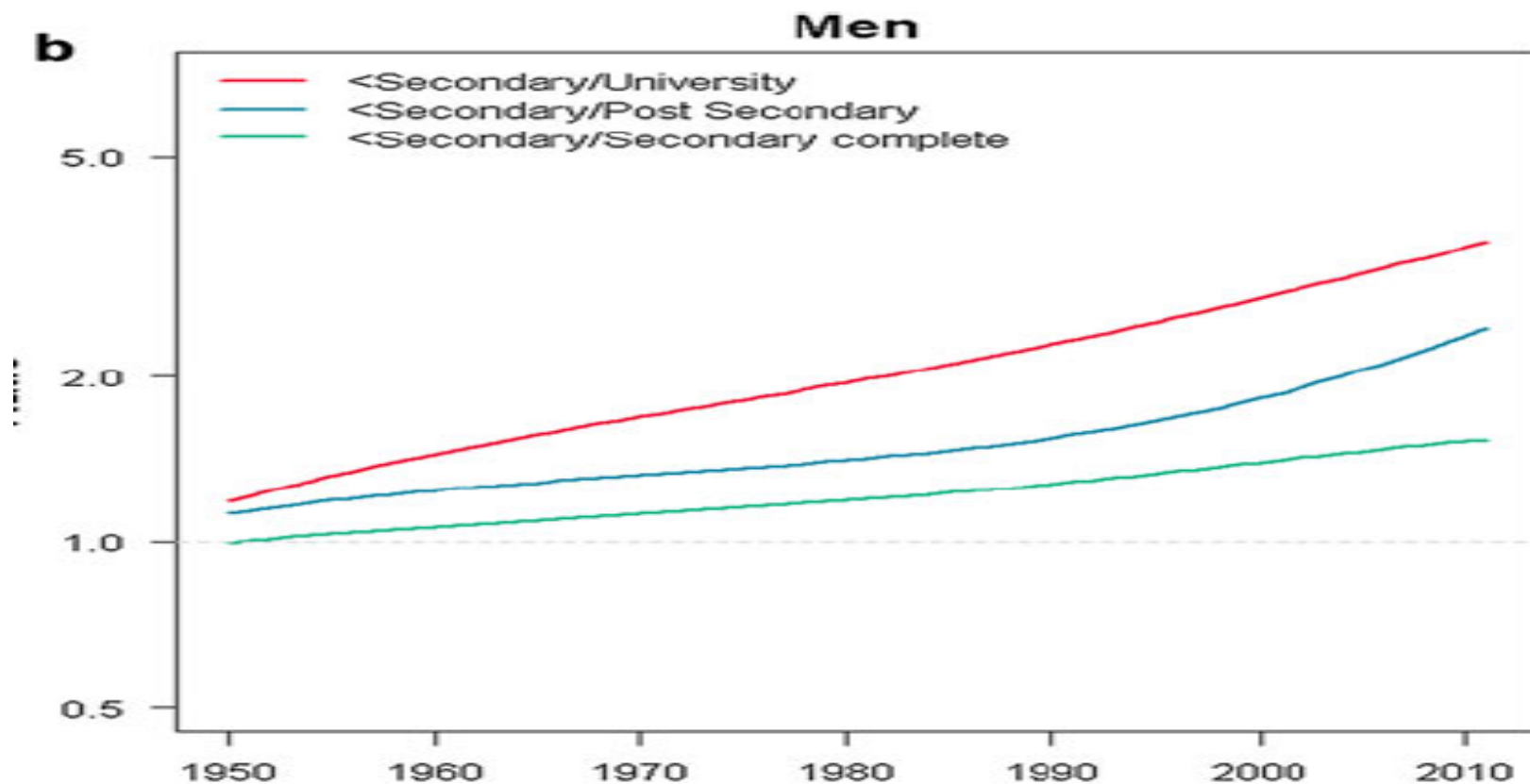


# Relative difference in smoking prevalence:Men

- >for N1 than for N2, N3, N4

# Estimated relative differences in current smoking between educational groups\*

Ibid p.50



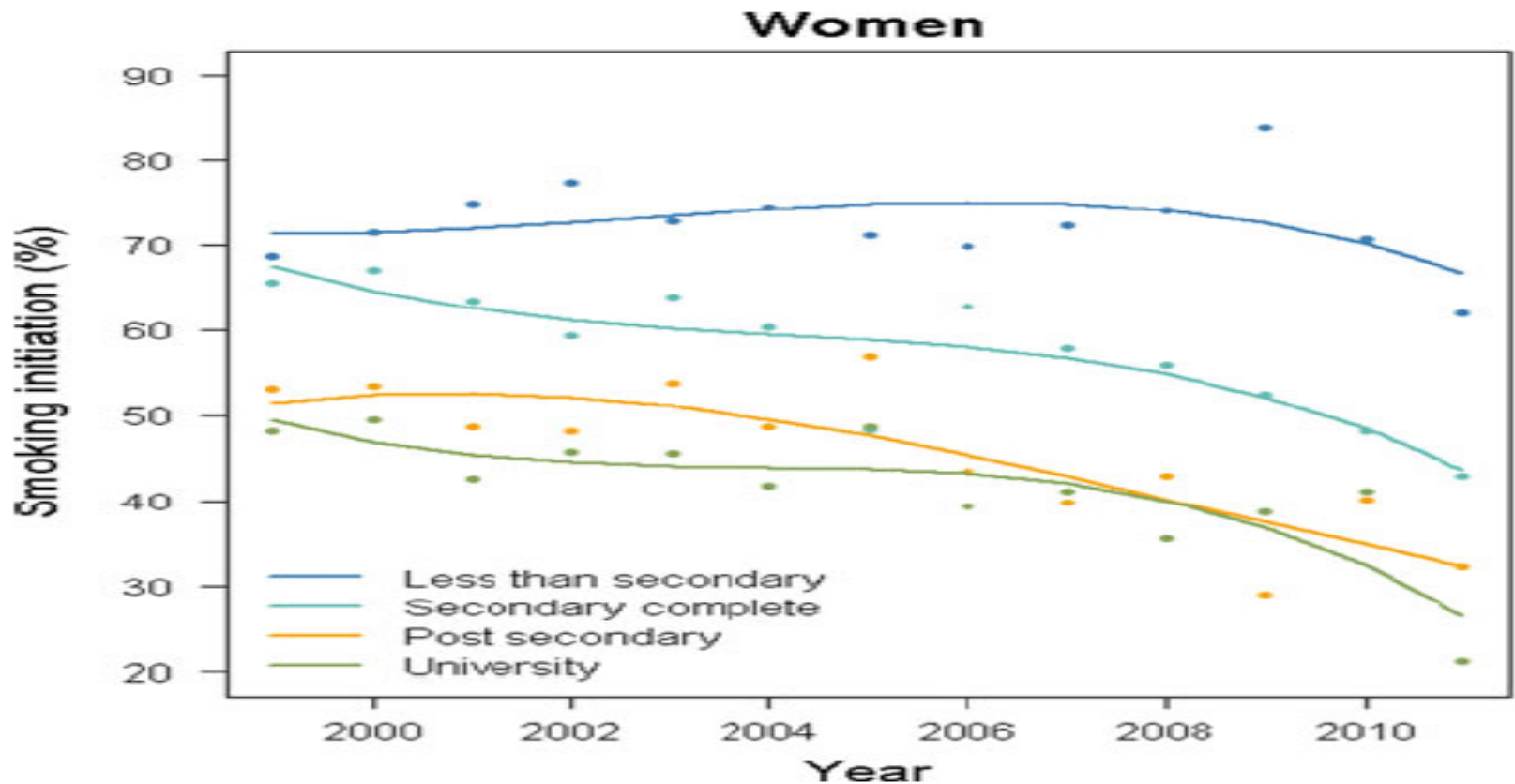
# Initiation in SES 1999-2011

- In 20-24 years old men and women lower education had higher initiation level
- N1 women (2011) 66.7% vs 18.2% in N4



# Smoking initiation by level of education in Canada among women\*

Ibid p.54

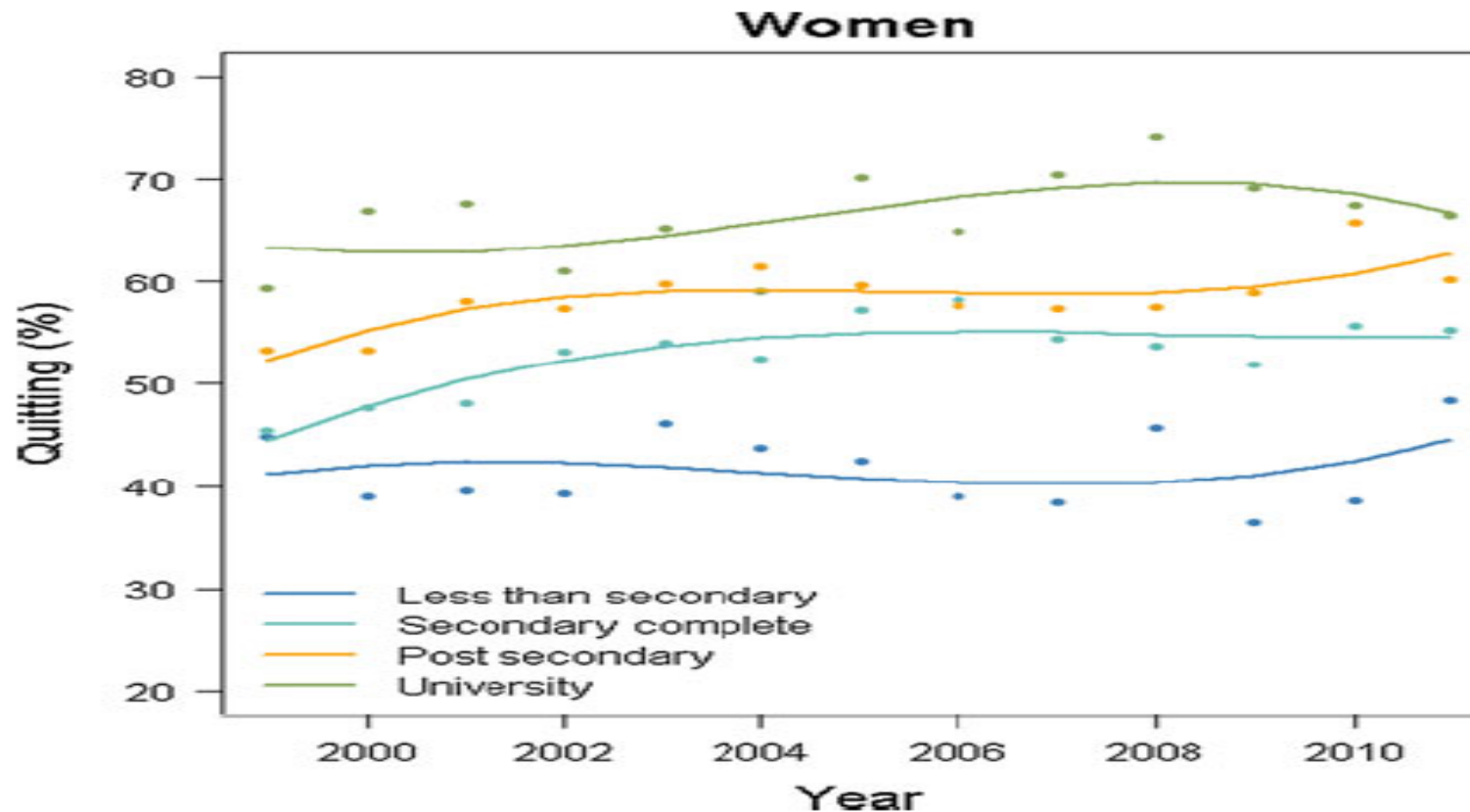


# Cessation and SES

- Highest cessation in N4 from 1950-2011

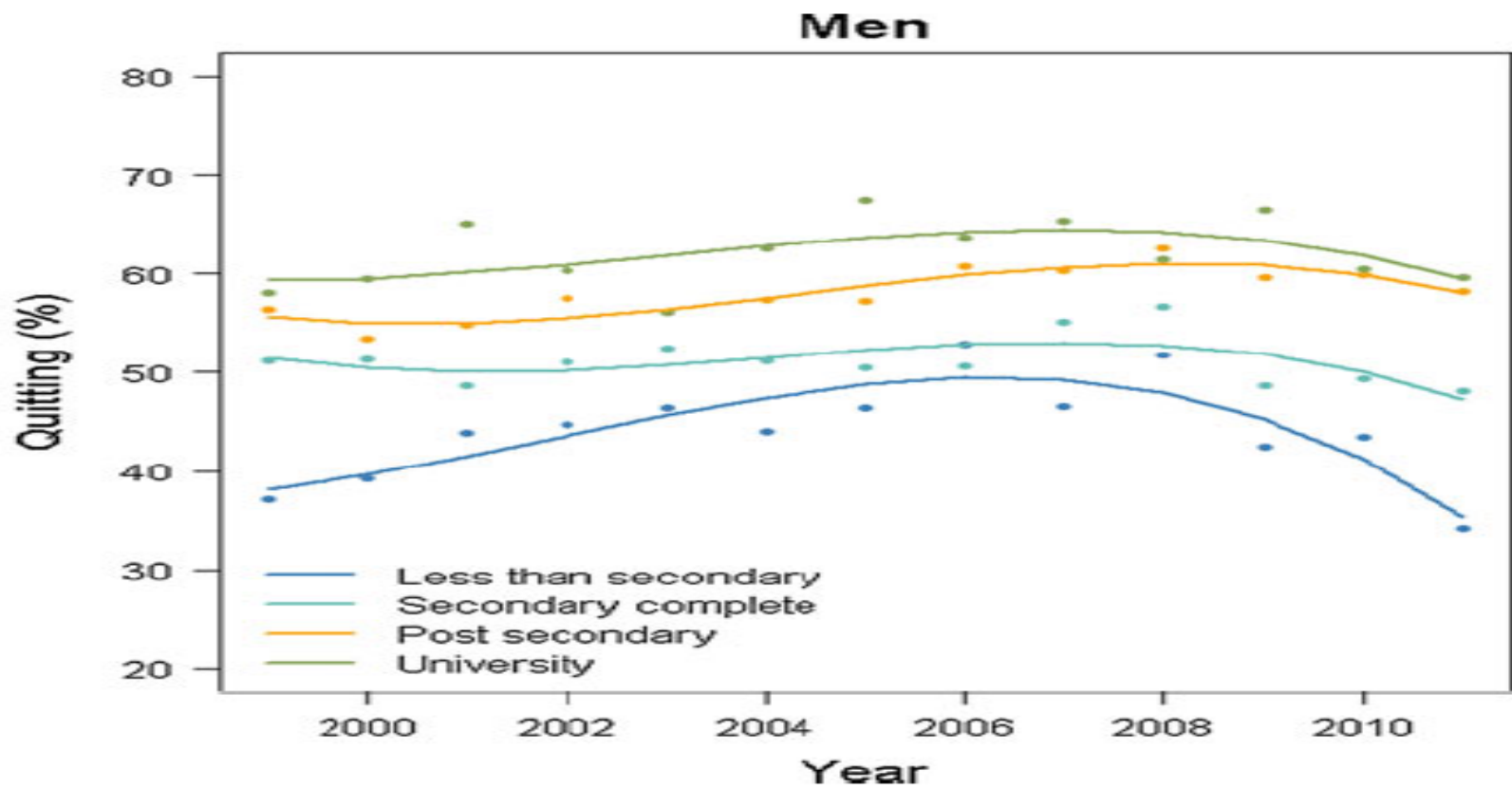
# Smoking cessation by level of education in Canada among women\*

Ibid p. 54



# Smoking cessation by level of education in Canada among men\*

Ibid p. 54

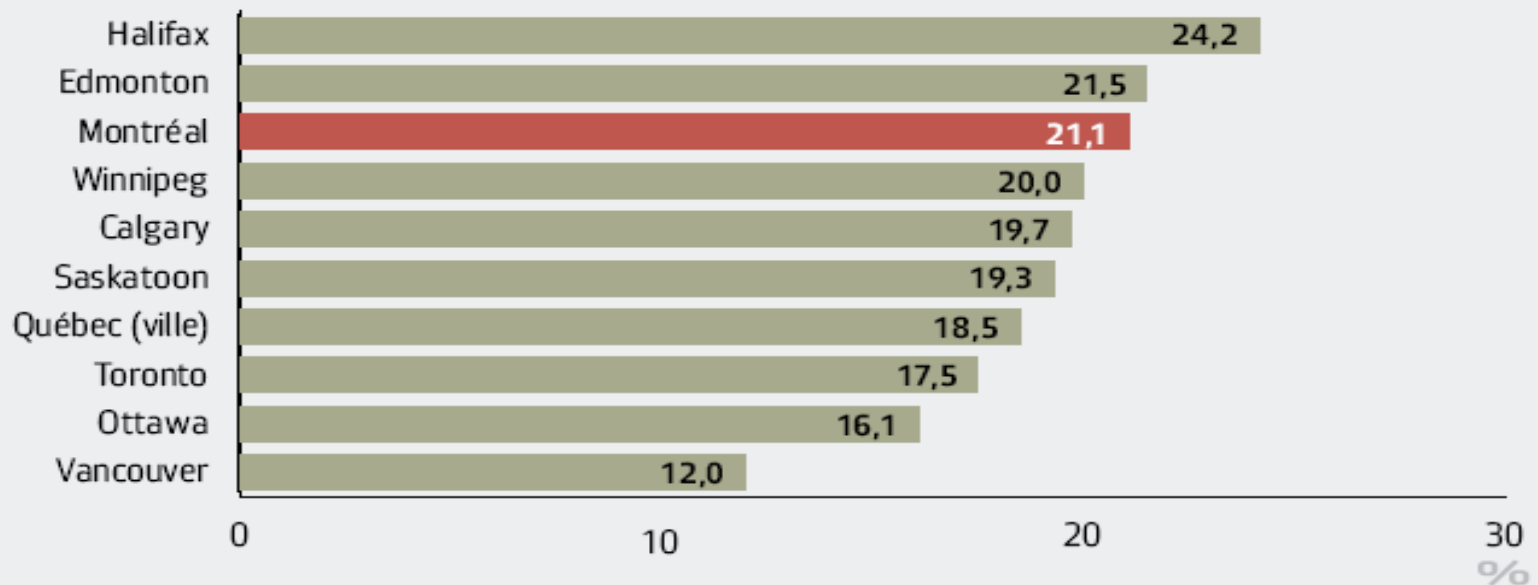


“ Étant donné que la baisse de la prévalence du tabagisme connaît un ralentissement depuis 2009, les acteurs doivent poursuivre leurs efforts, car fumer demeure encore la première cause évitable de mortalité prématurée, de maladies chroniques et d'aggravation de l'appauvrissement des groupes sociaux les plus défavorisés.”\*

*\*Montréal sans tabac – Plan de lutte contre le tabagisme 2012-2015*

# Proportion (%) de fumeurs, grands centres urbains canadiens, 2011- 2012

Proportion (%) de fumeurs,  
grands centres urbains canadiens, 2011-2012



Source : ESCC, 2011-2012.

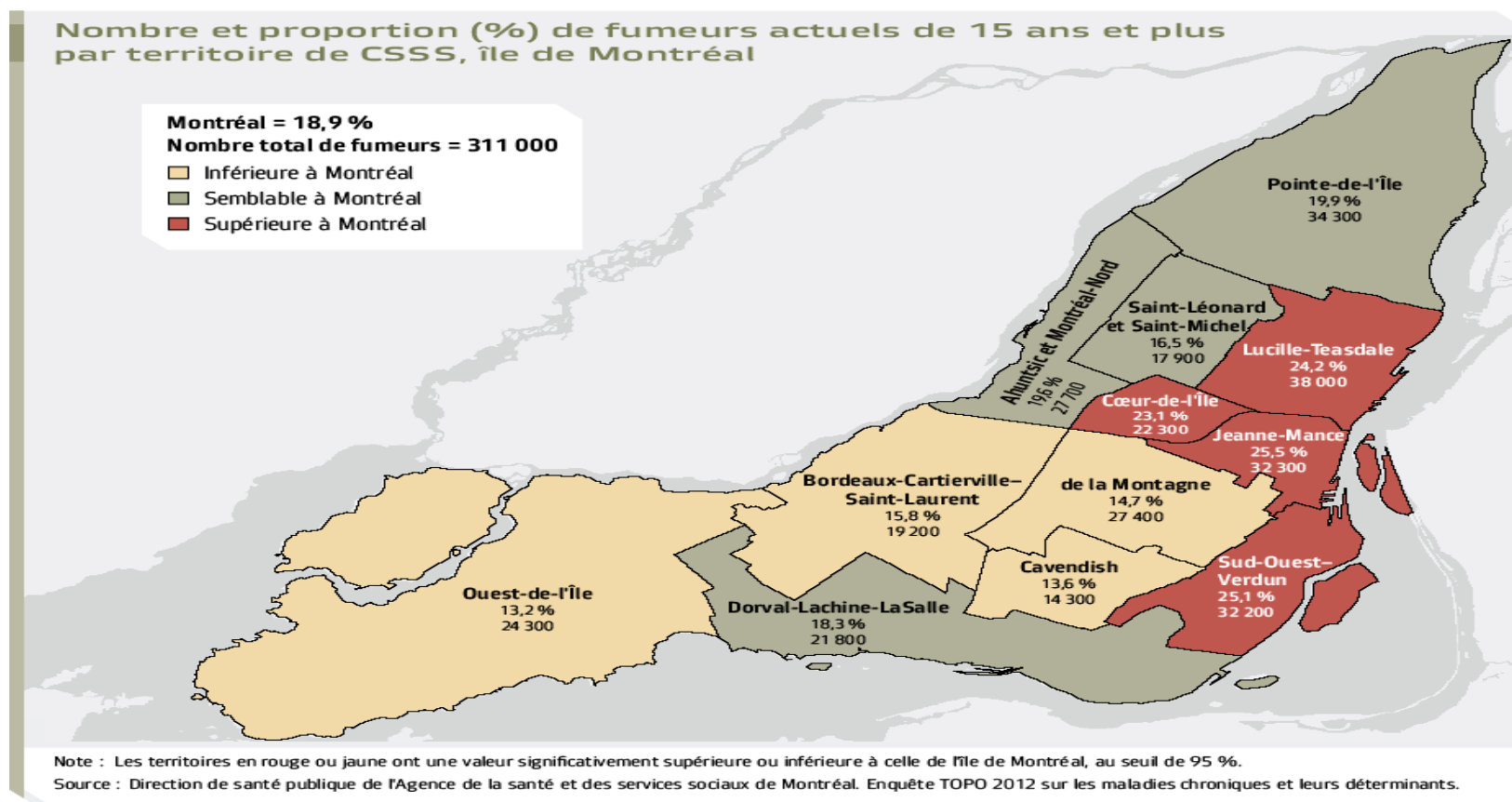
# Proportion (%) de fumeurs actuels, Montréal, Québec et Canada

Proportion (%) de fumeurs actuels, Montréal, Québec et Canada



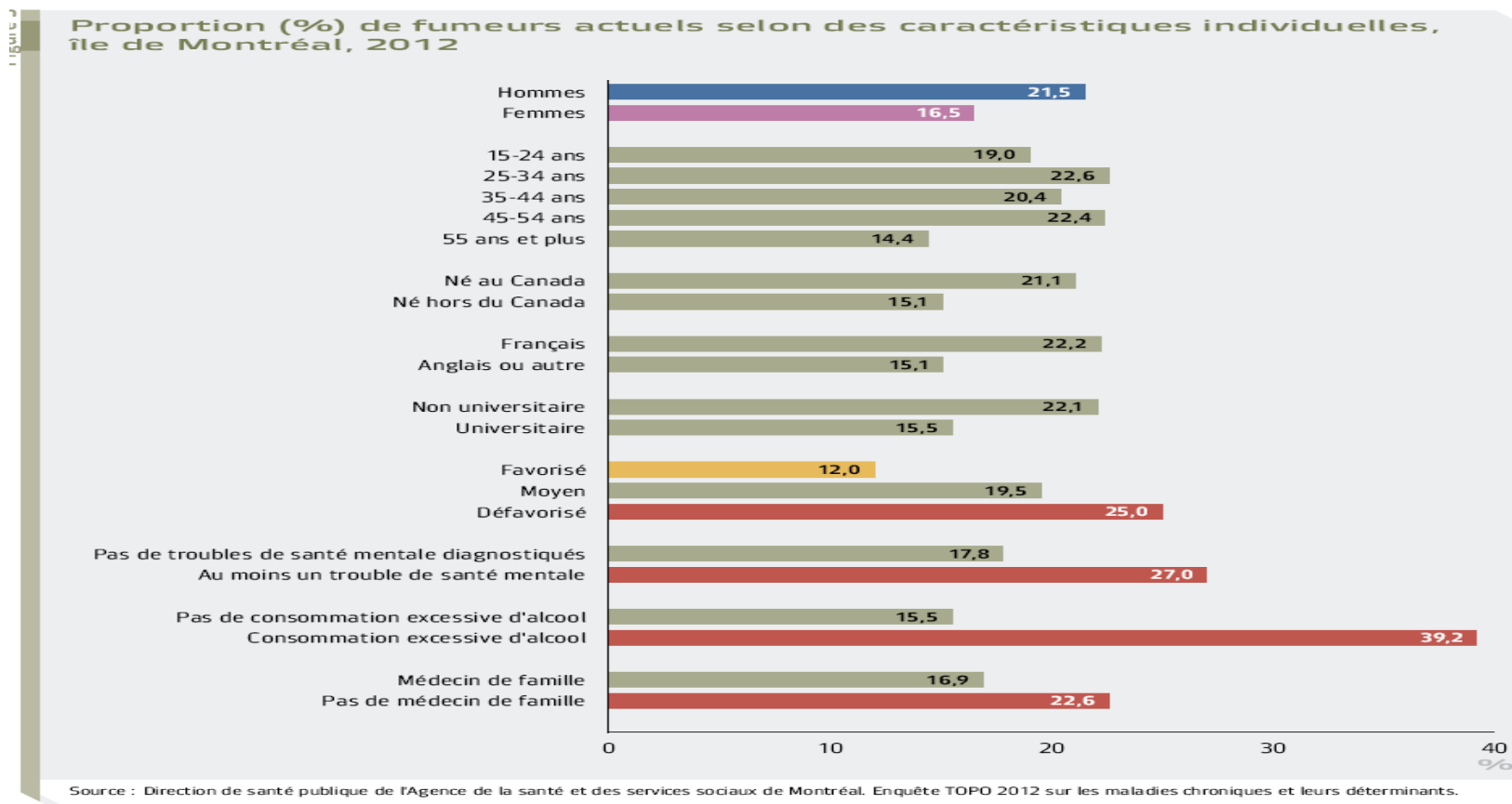
Sources : ESCC 2003, 2005, 2007-2008, 2009-2010, 2011-2012.

# Des disparités territoriales sur l'île de Montréal





# Des groupes plus touchés par le tabagisme que d'autres



# Une prévalence du tabagisme plus élevée dans certains groupes

- “Les personnes qui vivent dans un secteur défavorisé sont deux fois plus nombreuses à fumer que celles vivant dans un secteur favorisé.
- La prévalence du tabagisme parmi les jeunes de 15 à 24 ans varie du simple au triple d’un territoire de CSSS à un autre (de 10 % à 32,4 %). Elle varie aussi en fonction du niveau de défavorisationB du secteur de résidence. Les jeunes domiciliés dans des secteurs défavorisés comptent une proportion de fumeurs presque deux fois plus élevée que ceux des secteurs favorisés (24,4 % comparé à 13,3 %).”\*

\* Montréal sans tabac – Plan de lutte contre le tabagisme 2012-2015

## Une prévalence du tabagisme plus élevée dans certains groupes

- “La prévalence du tabagisme parmi les personnes qui n'ont pas fait d'études universitaires est plus élevée que parmi les personnes qui ont fait des études universitaires (22,1 % comparé à 15,2 %).
- Le fait d'avoir un diagnostic de trouble de santé mentale accroît de 50 % la probabilité d'être fumeur.”\*
- \*Ibid

# Inequalities in tobacco use - poverty

- The poorer the country the greater the amount of tobacco use
- The poorer the country is the greater is the health and financial burden to households
- Same applies to non-smoking use of tobacco, .e., chewing tobacco, bidis, kretkis

# Inequalities in tobacco use - Gender

- Smoking is higher in males
- Gender difference is greater in low and middle income countries when group together
- Narrowing of differences among youth 13 – 15 years

# % of smoking by gender, age WHO region and country

**TABLE 11.1** Cigarette smoking/tobacco use prevalence (%) by sex, age, WHO region and country income groups

<b>Current cigarette smoking</b>	<b>Adults (15 years and older)</b>		<b>Adolescents (aged 13–15 years)</b>	
<b>WHO Region</b>	<b>Males</b>	<b>Females</b>	<b>Boys</b>	<b>Girls</b>
Africa	14.93	1.50	13.5	5.2
Americas	29.70	18.65	13.5	15.0
Eastern Mediterranean	28.21	2.05	7.3	2.0
Europe	46.09	24.62	21.0	17.4
South-East Asia	35.07	2.22	9.5	2.0
Western Pacific	56.08	4.95	18.5	8.4
<b>Current tobacco use</b>	<b>Adults (15 years and older)</b>		<b>Adolescents (aged 13–15 years)</b>	
<b>Income group</b>	<b>Males</b>	<b>Females</b>	<b>Boys</b>	<b>Girls</b>
High	33.3	21.4	–	–
Upper middle	44.4	18.3	–	–
Lower middle	51.7	4.6	–	–
Low	30.1	4.0	–	–

Sources: Based on data from the *WHO report on the global tobacco epidemic* (1), United Nations population statistics, the Global Youth Tobacco Survey (8, 9) and *World Health Statistics* (4).

# Inequalities in tobacco use – ethnicity

- Greater difference in tobacco use among first nations than population of European descend
- Diverse prevalence among other ethnic communities within national boundaries

# Inequalities in tobacco use within nations— additional subpopulations

- Single mothers
- Long term unemployed
- New immigrants
- The homeless
- Mentally ill
- Ethnic minorities
- LGBTQ/HIV communities
- All have greater members who are of low SES\*

\*Ibid 203



# Unequal exposure & vulnerability to tobacco smoking

- “ 2 stages in life when *inequality in vulnerability and exposure to tobacco use* are most pronounced” \*
- “When intervention may be beneficial: at adolescence when young people begin to smoke and risk nicotine addiction and in adulthood, especially young adulthood when they try to quit” \*

\*WHO Equity and social determinants p.205

# Unequal tobacco use in adolescence independently linked with:\*

- Smoking is linked to family disadvantaged background:\*\*
- Low socio-economic or education status
- Most at risk low SES
- Low parental income
- Low parental educational status
- Parental living standard
- Becomes stronger as SES declines

\*WHO Equity and social determinants p.205

Fergusson DM et al. Addiction 2007

# Reduced capacity: resisting peer pressure

- Disadvantage adolescents less able to resist peer pressure or tobacco advertisement
- Have less skills in social competence and self confidence
- Have less knowledge about specific harms due to smoking
- More skeptical about harm
- Less receptive about effect of tobacco
- Underestimate the harmful effect of tobacco

# Unequal life stress

- Problems with families, school, neighborhood, financial problems increase risk for adolescences to smoke
- “Depression is high among both low-income individuals and smokers”\*
- Other behavioral factors: alcohol, drugs, sexual identity, loss of hope increase risk for initiation
- Poor school attendance\*

# “Social & financial disadvantage” contribute to increase tobacco use in women

- One study found that 4 socioeconomic components independently result in increase smoking in women
  1. Childhood disadvantages
  2. Educational disadvantages
  3. Early motherhood
  4. Present financial difficulties
- In women who experienced all, 63% were smokers compared to 18% who experience non\*

Ibid. p. 203; Graham H et al Journal of Epidemiology and Community Health 2006

# Unequal exposure to tobacco

- Low SES youth are exposed to greater physical and social environments promoting uptake and discourage quitting
- Have higher risk of having parents smoke
- Parents and peers serve as role models of acceptability, permissiveness of smoking
- Peers smoking increases youth initiation\*

# Unequal availability of tobacco products

- Poor neighborhoods have more convenient stores which advertise cigarettes
- Sell single sticks
- Poor enforcement of laws banning sales to minors of selling singles\*

# Tobacco industry targeting youth

- Tobacco industry knows the importance of marketing to low SES youth
- Extremely successful with girls
- With low education
- With low SES
- Often us symbol of emancipation of women
- Can be subtle:films and TV



# Unequal support for not smoking

- Smoking arises from:
  1. Culturally ingrained behaviour
  2. Poor resources (material, human, social capital)
  3. Stressful environment
  4. Social reinforcement of smoking
  5. Limited resources for other forms of pleasure
  6. Limited smoke free places
  7. Smoking is perceived as the norm

# Inequality in cessation

- Young adults, less educated are more likely to “fail quitting...become more addicted to tobacco”\*

# Increase disadvantages makes cessation harder

- Less education, less knowledge on how to quit
- Low income, other priorities, less motivated to quit
- High unemployment, chronic stress, loss of hope, and other chronic social disadvantage increase tobacco use

# Cessation follows same pattern

- Starting or stopping occur in social clusters
- Those with no connection to quitters continue to smoke

# High nicotine addiction

- Low SES initiate at younger age
- Smoke more per day
- More addicted to nicotine
- Harder to quit

# Other factors for diminished cessation

- Low SES have less confidence in quitting
- Face more barriers: stressful environment, social isolation, concern with the present
- Perception as affordable pleasure with low risk, relieve from nicotine withdrawal

# Additional co-morbidity in smokers

- Drug abuse
- Depression
- Other psychiatric condition
- Homelessness
- Social isolation, participation
- Exclusion, LGBTQ/HIV
- Alcohol

# Work condition

- Monotonic and limited control on the job result in increase occupational stress
- Smoking reduces boredom, increase alertness, facilitates friendship



# Unequal exposure to tobacco

- Social norm to smoke in poor neighborhoods is high
- High addiction in families and friends
- Workplace norm: smoking areas, breaks relief from monotony of work
- Poor smoke free cessation options in workplace
- Poor enforcement of tobacco control laws

# Lack of social and instrumental support

- Low SES are “less likely to have supportive social network, particularly at home, and work if they want to stop smoking due to lack of culture of quitting and reduce awareness of methods available to help smoking cessation”\*

# Factors in continuing smoking

- Lack of affordable cessation services
- In many countries NRT is expensive or not available
- Absence of cessation counseling
- Distant location from cessation services
- Hotline not available
- Required proof of residence

# Smoking cessation is associated with both developed vs developing nations

- Lower in developing vs developed nations
- Cessation was 20-40% greater in developed countries vs only 2% in men in China and 5% in India\*
- Within countries, low SES and those of lower social disadvantage cessation is lower
- In UK 60% of high income quit smoking compared with 15% of the poorest

# Secondhand smoke and social gradient

- Low SES are exposed more to secondhand smoke at home and workplace compared to more affluent group\*

# Instruments to reduce tobacco use

- Structural: “reduce consumption of tobacco products by reducing their *availability*, *acceptability* and *accessibility*” \*
- Service Interventions: assist smokers to quit

# Global distribution of smoking

- Has changes in the past 40 years
- Is reduced in developed countries: UK has ½ compared to 1960
- But increased in developing countries
- Health outcome: death is 3x higher in smokers than non-smoker in USA and UK aged 35-69
- In Russia loss of life of male smokers is 19 years in males and 16 in women

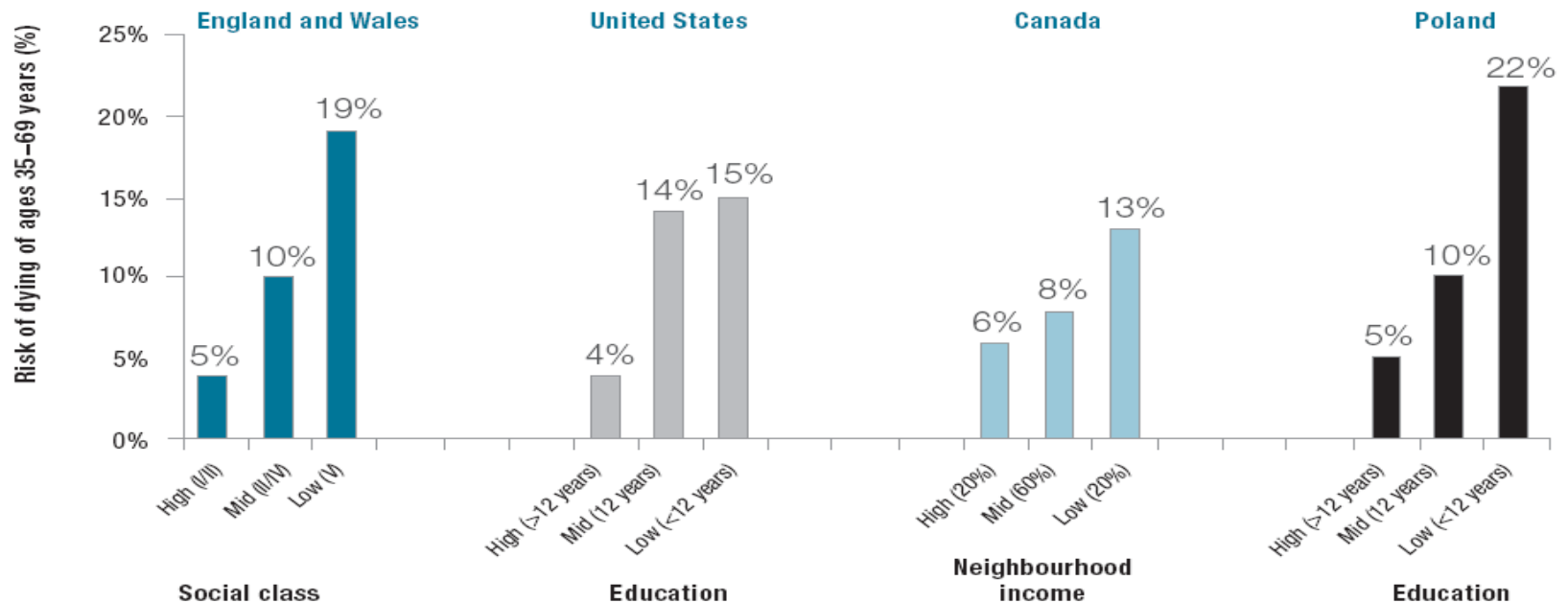
# Inequality in Health and Smoking

- 90% of all lung cancers due to smoking
- 45% coronary heart disease in men; 40% in women
- Burden from disease worldwide will increase from 2.6% to 10% by 2015 due to smoking
- Is number 1 cause of preventable death and chronic illness
- Death from tobacco is a gradient of life years lost from low SES to high status



# Risk of death and SES

**FIGURE 11.3** Low socioeconomic status and differential health outcomes due to smoking



*Note:* Social inequalities in male mortality in 1996 from smoking. Values are percentages of 35-year-old men dying at ages 35–69 years from smoking if the population death rates of 1996 were to remain unchanged.

*Source:* Jha et al. (21).

# Inequality in Health and Smoking

- Death due to smoking in pts with tuberculosis is 4x higher
- Contributes to 20% of tuberculosis worldwide
- Secondhand smoke at home increases risk by 20% for heart disease and 20-30% for lung cancer

# Monetary Inequality

- 1/2 the men in Bangladesh smoke, 1/2 their children <5 are underweight
- Poorest household of developing world spend 10% of income on tobacco
- Reduces spending on education, healthcare, housing and saving
- Cost is high in nations with public health coverage
- Republic of Korea smoking increased from 1999-2003 resulting in an increase in expenditure of US \$89 billions

# Tobacco Industry

- 3 largest companies: 100 billion annual income
- Surpasses GDP of most nations except 35 countries
- Both industry and government use their power to stymie tobacco control, i.e., Thailand effort to ban advertisement of imported tobacco

# Globalization of tobacco: Promoting tobacco epidemic

- International agreement that superceding corporate rights over health rights
- Through removal of importation regulations
- Removing restriction on advertisement
- Has had an asymmetric impact on both nations and individuals

# Inequality and Globalization

- Results in widening of inequalities between nation and within nations
- Inequalities entails greater tobacco use
- What needs to be done

# Increase effectiveness at reducing inequalities

- Government and whole society approach including health sector and cessation services targeting high risk subgroups
- “To address the entire spectrum of tobacco control, political and community leadership, community mobilization and health systems is central” \*

# International: multi-sectorial approach

- Globally: UN ad hoc interagency task force on tobacco control established 1999
- Need “ advocate integration of tobacco control strategies into an ongoing future initiatives of other UN agencies and institutions of health over profit, a core value of development assistance, international aid and trade agreements”\*



# Regional: multi-sectorial approach

- “Engage with other political sectors in developing integrated approach to reduce tobacco-related health inequalities and addressing the social determinants of tobacco consumption

A national multisectorial steering committee for tobacco control is a fundamental building block for for national tobacco control capacity building”\*

# Local level: multi-sectorial approach

- “Civic and other community groups can play a vital role in reaching those disadvantaged population sub-groups in administering innovative programs that incorporate health interventions into strategies designed to ultimately address the root causes of social inequality and poverty”\*
- Ibid p. 214

# Local level: multi-sectorial approach

- Must be done as part of an integrated policy whose aim is to attempt to reduce income inequalities, homelessness, chronic unemployment, stigmatization of sub-population with proper funding to achieve those goals
- All such policies are currently under implemented

# Healthcare sector

- Bring cessation into the community/workplace
- Advocate the elimination of users fees for cessation.medication
- Greater outreach for prevention/cessation program for the informal communities
- Incorporate gender sensitive approach to patient education and cessation
- Educate and incorporate brief intervention for cessation as essential service

# Enhancing compliance

- All healthcare workers should be trained in helping smokers quit
- Cessation counseling should be paid service
- Should be incorporated into all care

# Implementing WHO: Framework convention on tobacco control

- Price and taxation
- Banning tobacco advertising, promotion, sponsorship
- Banning sale to minors
- Using health warning on tobacco products
- Banning smoking in public places
- Containing illicit trade in tobacco
- Educating, training and public awareness
- Treatment for tobacco addiction

# WHO: Cost effective intervention

- Taxation is the most effective
- Banning advertisement second most effective
- Smoke free indoor public places
- Information dissemination\*
- 5.1 million death per year could be prevented by these policies

# Specific structure policies to reduce inequalities in smoking

- Restricting smoking in schools
- Increase taxes and subsidize income
- Offer cessation service as part of increase taxation
- Targeting specific population for cessation
- Free education, healthcare, cessation services
- Policies are under implemented



# Tobacco control: general conclusions

- When intervention have been applied, prevalence of overall smoking has been reduces
- Few countries have implemented all measure to reduce smoking
- Countries who lag in implementation are seeing increase in smoking\*

# “Equity lens” needs to be applied to tobacco control

- “Government and implementing agencies need to be aware of the ‘inverse equity’ principle in which higher socioeconomic groups are better positioned to access, utilize and derive health benefits from effective intervention than poorer, more disadvantaged groups”\*

# “Equity lens” needs to be applied to tobacco control

- “ implementation of the Convention provisions will need to be accomplished by community based efforts to build capacity for self-enforcement ensuring that the communities of disadvantaged are engaged as partners through participatory approach, and can thus play a role in adapting tobacco control policies and interventions to local contexts and equity issues” \*

- Ibid p.208

# Price & taxes

- Increase tax is effective at reducing availability of tobacco especially in vulnerable groups
- Decreases acceptability as people may feel uneasy paying more for poison
- Tax revenue can be used for cessation and other prevention programs, redistributing healthcare services, etc.

# Price & taxes: effects on young and poor

- 10% increase reduces smoking by 8% in low-middle income countries and 4% in high income
- Young people are price sensitive due to less available income and are less addictive
- World Bank recommends taxing tobacco at  $\frac{2}{3}$  to  $\frac{4}{5}$  of retail price. Few countries have such policies

# Taxation:negative effects

- Poor smokers spend more on tobacco, other families members suffer from reduction of disposable income for other needs
- Could affect local farmers and workers in tobacco producing countries
- Need for additional income support for these measures

# Taxation: other consequences

- Government need to know that taxation does not cause economic catastrophes as stated by tobacco companies
- Increase government revenues
- Protect and improves population health by reducing tobacco consumption
- Can be redistributed to reduce social disadvantages

# Eliminating contraband

- Contraband reduce prices of tobacco and increase consumption especially among the disadvantaged



# Banning sale to minors

- “will limit availability to children and adolescent”\*
- Not implemented in many countries
- Need to be enforceable, but resources are not put in place

# Accessibility to cessation services

- Using tobacco tax revenue for tobacco control making cessation program accessible to disadvantaged groups
- Monitoring disadvantaged subpopulation
- Subsidizing cessation medication adequately
- Engaging community partners for cessation

# Reducing exposure

- Banning smoking in workplace; public places, reducing time and places for smoking
- Reduce exposure to secondhand smoke
- Reduces acceptability by changing social norm

# Banning tobacco advertisement

- Meant to reduce acceptability of smoking by altering social norm
- Cheap and easy strategy, especially in disadvantaged groups
- Banning sponsorship of events is more complicated involving cross border and funding substitutes
- Few countries have complete ban on APS

# Banning APS can be difficult to implement

- Trade agreement over intellectual right – packaging
- Product placement; films, TV, internet
- In India 70% of films depict smokers as good guys

# Packaging and warning labels

- A pack of cigarette is a form of advertising
- Meant to entice smokers to continue
- Adding health warning increases information on health effects, especially to young and illiterate
- Counters the attractive nature of the packaging
- Few countries have implemented major health warning or neutral packaging

# Role models

- In Hong Kong Jackie Chan is the role model for tobacco free lifestyle
- Republic of Korea had Lee Joo Il a popular comedian spending the rest of his life after being diagnosed with lung cancer promoting cessation. Male prevalence dropped 10% in just 1 year.

# Increase availability of information

- It increases human capital and empowers vulnerable communities to resist pro-tobacco influence



# Engaging community groups/leaders

- Identifying and engaging community based groups and leaders to help de-normalize tobacco use in high risk sub-populations can be effective in reducing smoking in vulnerable populations

# Offer cessation programs to vulnerable communities

- Should be accessible, appropriate and effective
- Elimination of fees for cessation
- Subsidized NRT and other aids
- Bring cessation to the disadvantaged communities setting
- Incorporate other health services
- Phone quit lines should be free via toll free number
- Using tax revenue for targeted cessation intervention

# Monitoring inequalities in smoking

- “The public health community needs to be highly critical of its monitoring and surveillance tools and methodologies to apply to equity perspectives to how we measure impacts and gather data, and to strive to design monitoring mechanisms that are inclusive and equitable.”\*

# Monitoring inequalities in smoking

- Will enable to track effectiveness of intervention within society as a whole and subpopulations
- Should also track trends
- If interventions are effective, should show decrease in various vulnerable subpopulations

# Proximal intervention: equity lens applies

- Taxation and social transfer could reduce children living in poverty
- In Nordic countries: cash provisions “pegged to average income” \*
- Sweden child poverty reduced from 18% to 4%
- USA system is based on “means tested benefits”

\*Graham H. et al J.Epidemiol Community Health 2006

# Funding public services

- Preschool education improves education, employment outlook and reduction in smoking\*
- Social policies that target reducing SES inequalities, education, early programs with tobacco control policies will reducing differential national smoking prevalence

- Ibid. H11

# Terminology: LGBTQ\*

- **“Lesbian:** A woman who forms physical and emotional relationships with other women.
- **Gay:** A man who forms physical and emotional relationships with other men (sometimes also used to refer to women).
- **Bisexual:** A person who forms physical and emotional relationships with men and women.
- **Transgender:** A person whose gender expression transgresses gender norms or crosses society’s idea of gender lines.
- **Transsexual:** A person whose gender identity is different from the biological sex that they were assigned at birth and who may choose to change their sex.
- **MTF Trans:** A male to female transwoman.
- **FTM Trans :**A female to male transman.
- **Queer woman/or man:** is an umbrella term that seeks to encompass a broad range of sexual orientation identities, behaviours and expressions. Sometimes it is used as a short form that includes lesbian, gay, and bisexual.

\*Clarke et al 2012

# Prevalence of Smoking among LGBTTQ in Toronto

(Clarke et al 2012)

	Daily	Occasional	Total
Lesbian (951)	24%	9%	33%
Gay men (1316)	28%	6%	34%
Bisexual women (312)	34%	11%	44%
Bisexual men (114)	36%	9%	45%
Queer women (159)	26%	13%	39%
Other (288)	27%	8%	35%



# LGBTTQ smoker vs. prevalence among Toronto adults (2005-6) \*(Clarke et al.2012)

Prevalence	LGBTTQ	General population (CCHS data)
Current smokers	36%	18.9%
Former smoker	25%	33.5%
Never smoked	39%	47.7%
15-19 yrs	57%	12.9%
55-59 yrs	22%	12.7%
>60 yrs	28%	9.5%

Vancouver MSM vs. BC population  
(1999-2000) \*(Lampinen et 2006)

	MSM	General population NPHS
Overall	54.5%	25.9%
15-19%	50%	11.2%
20-24 yrs	67%	32.8%
25-29 yrs	56.3%	35.7%
30-34% yrs	44.7%	17.1%
35-39 yrs	33%	31.6%

# Higher prevalence MSM smoking associated with \* (Lampinen et al. 2006)

- Younger age
- Greater depressive symptoms
- Canadian Aboriginal ethnicity

# Prevalence smoking and HIV/AIDS

\* (Lifson AR et al. 2010)

- 46%-76% of AIDS/HIV+ population smoke
- 2x-3x than general population
- 46.6% of new infections are among gay/bi men vs. 20.3% among heterosexuals (ACT 2013)
- Current smokers have higher rate of non-AIDS cancers, CVD, bacterial phenomena & all cause of mortality than non smokers
- 24% of deaths and 23%-31% of serious health risk attributable to smoking among HIV+

# Minority Stressors

\*(Blosnich J. et al. 2013)

- Differ from general stressor
- **Unique:** increase stress above general stressor;
- **Chronic:** experience on an ongoing bases;
- **Socially anchored:** do not change quickly;

Ex: Internalized homophobia; fear of disclosure; discrimination; stigma; violence

# Minority stress is associated with

\*Ibid

- Mental health: “distress, depression, anxiety....
- Increase health risk behaviour including smoking”

# Other factors of increased prevalence LGBTTQ

\*(Ibid)

- Poverty;
- Depression;
- Increase frequency of socializing in bars linked with smoking and SHS;
- Target marketing by tobacco industry

# Industry Targeting the LGBTTQ

- Sexual minorities at increase odds of being marketed (Dilley JA et al.2008);
- Are receptive to such marketing techniques (Smith EA et al. 2008) ;
- Marketing have be linked with increase smoking in adolescents (Lovato C et al. 2003)



# Bars as social spaces were smoking is normative

- Historically bars played an important role in the LGBTTTQ civil rights movement; may promote smoking
- Venues for marketing by the tobacco industry

# Examples of marketing in the LGBTQ communities

Vancouver March 2013



# Message in ad

- Special blend
- 100% additive free blend
- True

# Gay village tobacco store Toronto 2013



# Open late night

- Next to bars, restaurants, shops on Church St

# Popular LGBTTQ bar (2013)



# Location and message

- In front to staircase leading to the upper dance floor
- Contains words: “firm”, “feel clean”, “tip unique design”, “passion”, “drives us”, “fresh blend” and “hint of coolness”



# Poster in front of bathroom in a popular gay bar Toronto (2013)





# Messages

- “House of Players”
- “Great taste”

# Outreach to the gay/bi community

- March 28, 2011: press release JGH/Rezo
- Ads in gay publications; articles in newspapers; posters in establishment frequented by the gay/bi community;
- Community day presence/non smoking week
- Contacts with HIV/AIDS organizations/presentation
- Outreach to the lesbian community
- Increase community visibility

# Ads/posters: outreach gay/bi/HIV - Montreal

**ARRÊTER**  
*de fumer...*

*pour prendre des vacances*

*pour nous*

*me fait bander*

*pour être plus en forme*

*c'est bon pour mon cœur*

**Atelier de groupe et/ou suivi individuel pour arrêter de fumer pour hommes gais ou bisexuels**

Service offert gratuitement en français et en anglais  
[www.rezosante.org](http://www.rezosante.org) / [info@rezosante.org](mailto:info@rezosante.org)  
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Hôpital général juif  
Jewish General Hospital

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[rezosante.org](http://rezosante.org) / [info@rezosante.org](mailto:info@rezosante.org) / 514-521-7778, poste 226 (Intervenants)

ESPERANCE DE VIE  
SANTÉ  
ARGENT  
HALEINE  
COUPLE  
ÉRECTION

Hôpital général juif  
Jewish General Hospital

# Smoking cessation efforts targeted to persons living with HIV/AIDS

- One study suggests that 8-session intervention plus nicotine replacement therapy significantly increases quit rate among HIV + smokers compare to those who receive not help\*
- Wewers et al 2000

# Smoking cessation group program at Rezo

- Based on the American Lung Association Program Freedom From Smoking, but modified somewhat based on needs of clients
- eight session group or individual programs
- we prepare clients for the first three sessions
- client quits session 4

# CBT and motivational interviewing

- based on education, counselling, increased motivation to want to quit
- **Presupposes that quitting is a process**
- Presupposes the uniqueness of the individual and their needs and preferences
- Quitting entails time and effort on the part of the quitter and can take several attempts
- Made easier and more effective with counseling and friendly environment

# Multidimensional change

- quitting implies a change from being a smoker to being an ex-smoker
- changes occur within clients' beliefs and attitudes , the way they manage their **emotions and stress**, and behaviour towards cigarette

# Quitting entails acquiring skills to become an ex-smoker

- Systematic approach to quitting
- Less stressful through stress management
- Group or individual support
- Personalized counseling in a non-judgmental environment
- Comprises of orientation and 7 additional sessions or an as need basis
- Offered in the Gay Village or JGH



# Person focused

- since no two smokers are identical, counselling is tailored to the needs of the client within a group or individualized program
- Presupposes different levels of addiction to nicotine

# Helping with craving and withdrawal symptoms

- we offer prescriptions for medications that have been approved by Health Canada, many are subsidized by RAMQ
- These medications have been shown to reduce cravings and withdrawal symptoms after quitting
- Making quitting easier

# Follow-up after completion

- Telephone follow-up calls at one year after completion

# Follow-up con't

- If clients relapses we encourage them to come back and try again
- Since it takes 3 to 8 major attempts for someone to finally quit, clients can attend as many programs as is necessary to become smoke free

# Program is evidence-based

- the program took five years to develop
- was tested in 10 major North American cities
- articles published on its effectiveness

# Gay/bi groups Rezo/JGH

Date/ # registered	Completed program	Not smoking end of program	1 yr abstinence
June 6-July 18/11 (2)	1	1	1
June 26-July 28/11(6)	4	4	1
Nov 2-Dec 20/11 (3)	1	1	0
July 30-Sept 17/12 (3)	1	1	1
April 22-June 10/13 (5)	3	3	2
Oct 21-Dec 16/13 (5)	5	3	3

# Gay/bi groups Rezo/JGH

Date/ # registered	Completed program	Not smoking end of program	1 yr abstinence
April 28 June 16/14 (2)	2	2	0
Jan 26- March 16/ 15 (6)	5	3	1
Sept 18-Nov 6/15 (6)	4	3	NA
Total # enrolled: 38 in 5 yrs	1 yr abstinence: 9/32=28%		

# Conclusion

- Inform HIV patients about smoking and health
- Provide cessation services
- Tailored to the needs of the person
- Counselling and pharamcotherapy
- Mental health and substance abuse must also be dealt
- Issues of barriers to cessation, i.e, social disadvantage, in those communities need to be researched further



Thank you