

Public Health WORKS Speaker Series – Presentation on Public Health

by

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Overview

- SARS – lessons learned
- Impact and strategies to address communicable disease, NCD and injuries in Canada and globally
- Future Challenges
 - Climate change, international travel and migration, globalization, urbanization
- Public Health in the 21st Century
 - Next steps – PHAC, CPHO, Public Health Network, National Collaborating Centres, National Public Health Strategy
 - Getting Canadians involved

SARS: Lessons Learned

2003 SARS experience underscored the importance of:

- Global surveillance of infectious disease
- Collaborative national and international networks (surveillance, laboratory diagnosis)
- Prompt and efficient international and national communication/notification processes
- Public health infrastructure - people, policies, legislation, processes, informatics
- Ability to rapidly mobilize applied research capabilities to enable evidence-based decision making

SARS: Global and National Impact

Over the period November 2002 to July 2003:

- Approximately 8,100* probable SARS cases worldwide in 29 countries
 - 774* deaths in total
- Canada – 482 probable and suspect cases
 - Ontario – 247 probable + 187 suspect cases
 - B.C. – 4 probable cases
 - 44 deaths (43 probable + 1 suspect)

* WHO– Summary of probably SARS cases, revised September 26, 2003

Global Infectious Diseases

- More than 25 new infectious diseases identified in last 30 years
- HIV/AIDS
 - 38 million people infected with HIV/AIDS worldwide
 - 56,000 people infected live in Canada
- Tuberculosis
 - 2 million deaths globally every year
 - Rates in Canada slowly declining

Infectious Diseases in Canada

- Canada is not immune
 - SARS
 - Avian Influenza
 - West Nile virus
 - Clostridium difficile
- Chronic Infectious Diseases
 - HIV
 - Hepatitis C
- Need targeted, timely, responsive approach taking into account:
 - Health determinants
 - Vulnerable populations

Burden of Non-communicable diseases in Canada

Individuals and families

- ◆ 16,000,000 live with chronic illness
- ◆ Chronic disease accounts for 87% of disability

High risk groups

- ◆ Increased prevalence in vulnerable communities (e.g. Aboriginals) and in other socio-economically disadvantaged groups.

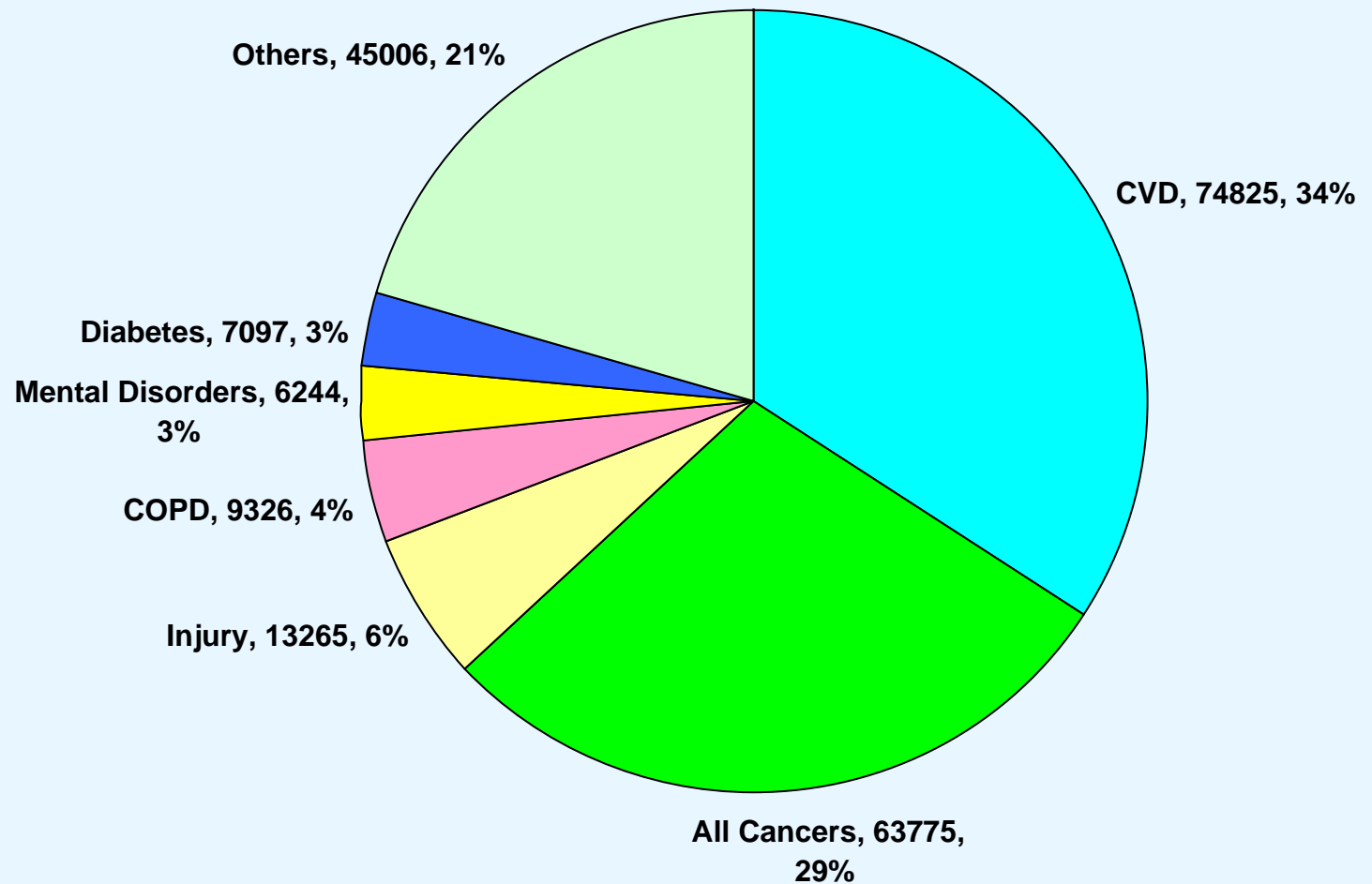
Economy

- ◆ Direct health care costs: 67% of total direct costs are expended on chronic diseases
- ◆ Indirect costs: 60% of total indirect costs (\$52B), e.g. loss of productivity and foregone income

All these numbers will increase

- ◆ Aging, increased prevalence of some risk factors, e.g. obesity

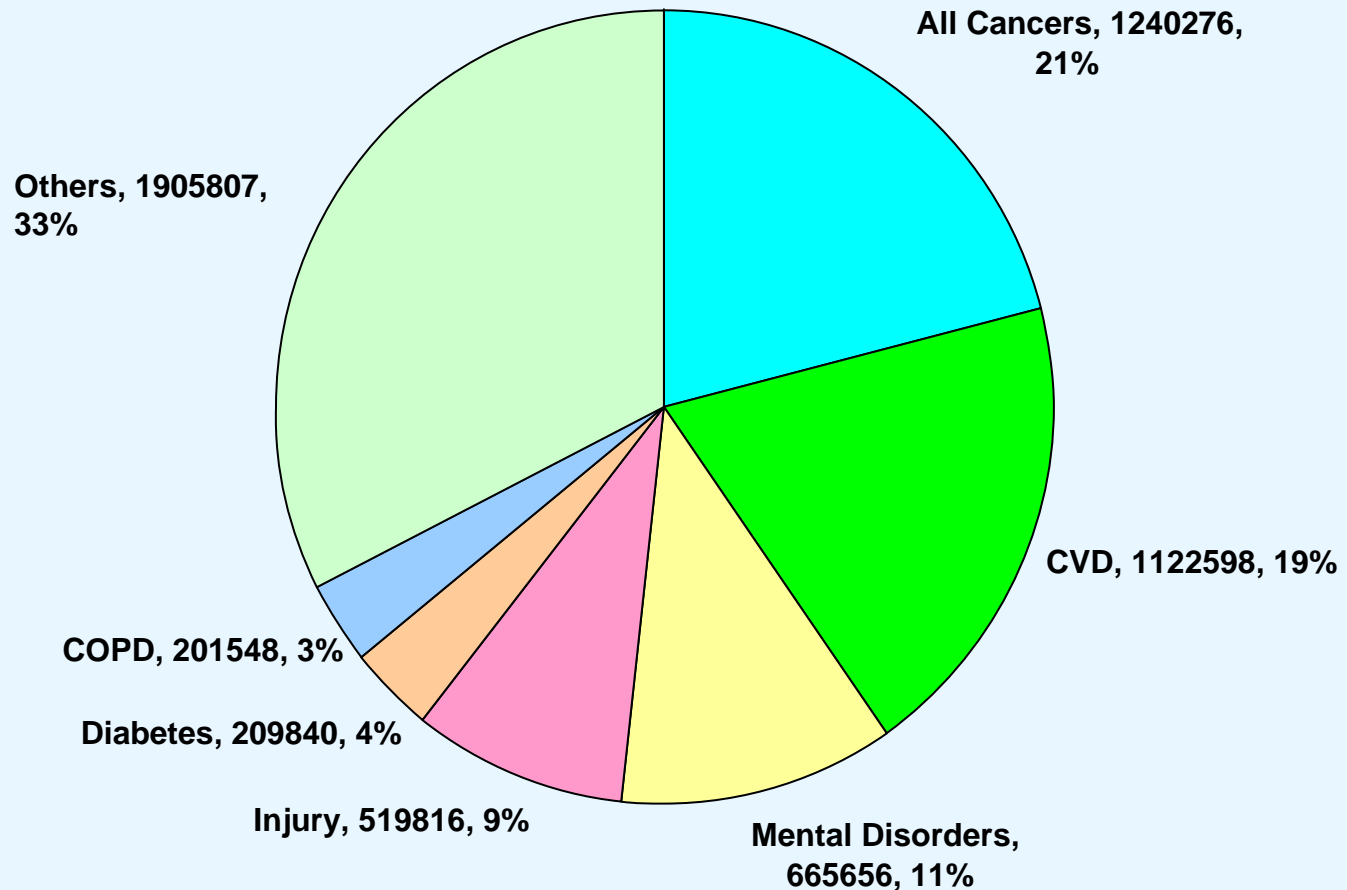
Causes of Death in Canada, 2001



Data Source: Canadian Mortality Database, 2001.

CVD – Cardiovascular Disease; COPD – Chronic Obstructive Pulmonary Disease

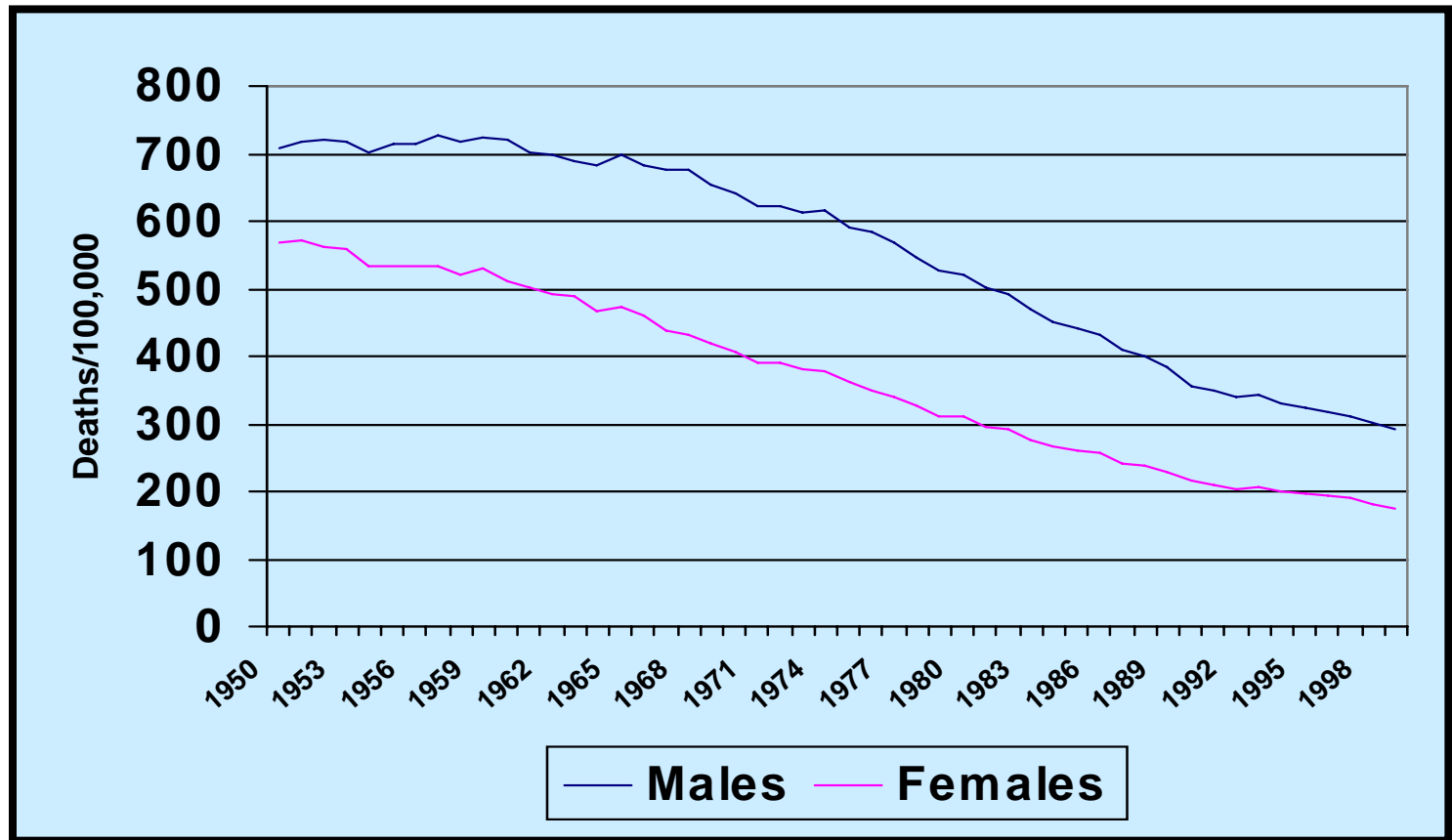
Causes of Disability-adjusted Life Years (*DALYs) in Canada, 1999



*One DALY represents one healthy life year lost. Data Source: Surveillance and Risk Assessment Division, CCDPC, PPHB
CVD – Cardiovascular Disease; COPD – Chronic Obstructive Pulmonary Disease

NCD in Canada – some good news

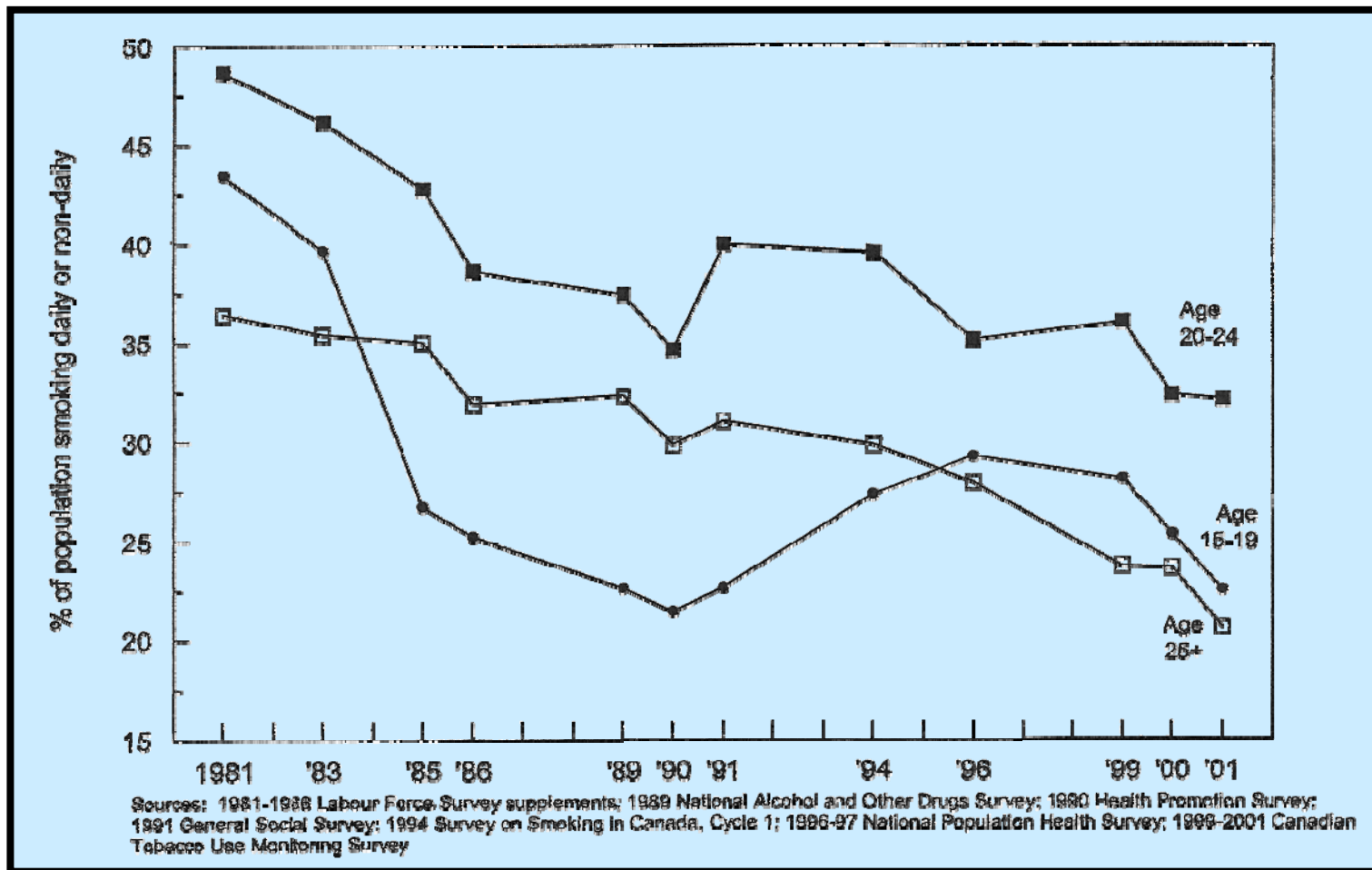
Age-Standardized Mortality Rates for Cardiovascular Diseases, Canadian Males and Females, 1950-1999



Source: Health Canada, 2003. Age-standardized to the 1991 Canadian population.

NCD in Canada – some good news

20-Year Trends in Smoking Current Smokers by Age, Canada, 1981-2001



Global NCD Reality

- NCD contribute 60% of deaths and 43% of the global burden of disease. Already 79% of these NCDs are occurring in developing countries.
- By 2020, NCD will account for 73% of deaths and 60% of the disease burden.
- Half of NCD are attributable to cardiovascular diseases.
- There are more CVD deaths in India or China than in all develop countries added together.

Injuries

- Unintentional injury, suicide and other violence together comprise the leading cause of death for Canadians aged 1-44
- Injuries are a major cause of premature mortality and disability, with significant financial costs to the health care system
- Beyond the physical and emotional trauma that any injury causes, there is the extra burden of emotional trauma and harm to Canadian families and society caused by child maltreatment, wife abuse and other forms of violence

Injuries, cont'd

- We must increase our efforts to address this important public health problem
- While great strides have been made in specific areas such as reducing injury and death from motor vehicle crashes, more work needs to be done
- Many injuries are predictable and preventable: the challenge is to work collaboratively across jurisdictions and sectors to improve our surveillance and to identify, implement and evaluate interventions

Top 10 Most Costly (direct and indirect) Diseases by Year, 1998

Disease Category	Rank 1986	Rank 1993	Rank 1998
Cardiovascular Diseases	1	1	1
Musculoskeletal Diseases	4	2	2
Cancer	3	4	3
Injuries	2	3	4
Respiratory Diseases	5	5	5
Nervous System/Sense Organ Diseases	8	6	6
Mental Disorders	6	7	7
Digestive Diseases	7	8	8
Well-patient Care	12	11	9
Genitourinary Diseases	11	10	10

Future Challenges

- Globalization
 - Increasing movement of people and goods across borders
- Migration
 - Approximately 100 million people cross the Canadian border annually
- Urbanization
 - In 1950, 30 percent of world's population lived in urban areas; In 2000, this proportion increased to 47% and is projected to reach 60% by 2030.
 - By 2020 90% of Canadians are expected to live in urban centres.

Future Challenges

- Climate Change
 - e.g. shorter winters in the north affecting indigenous communities
- Antimicrobial resistance
 - Impact on ability to respond to infectious diseases e.g. influenza

Public Health in the 21st Century - Moving Forward

- Public Health Agency of Canada
- Chief Public Health Officer of Canada
- Pan-Canadian Public Health Network
- National Collaborating Centres

Getting Canadians involved

- Public health targets and strategies
- Integrated strategies for non-communicable diseases
- Assurance of accountability

Thank you