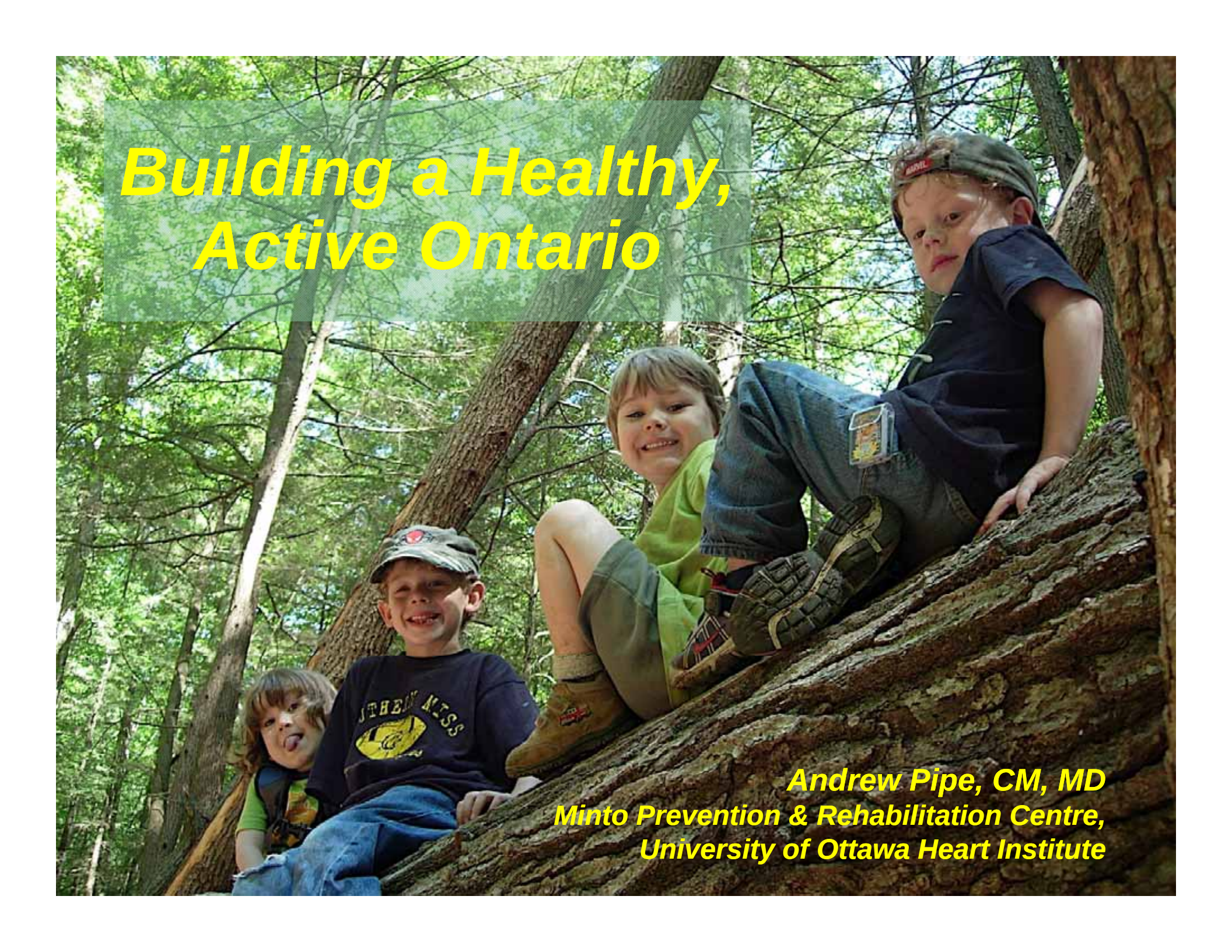
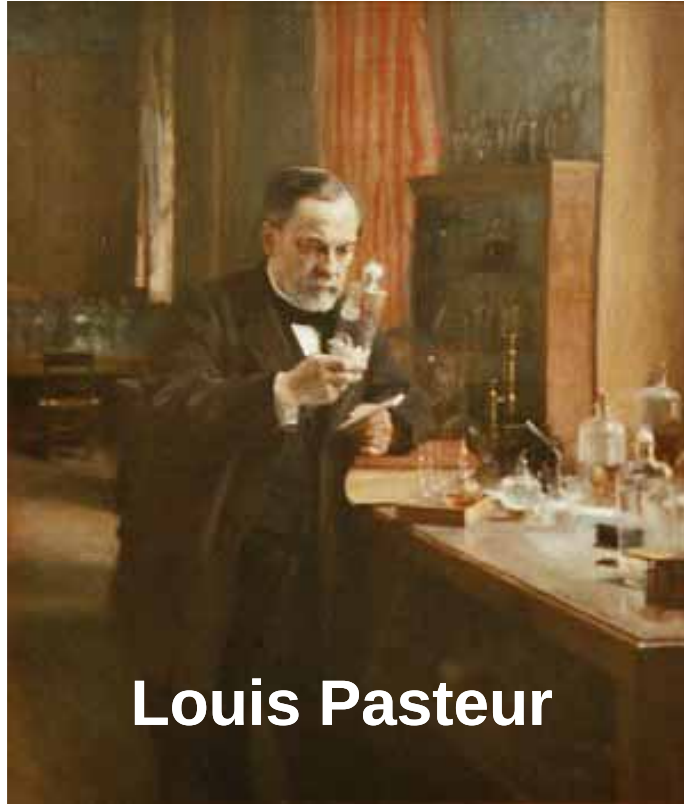


A photograph of four children climbing a large, textured tree trunk in a forest. The children are wearing casual clothing like t-shirts, jeans, and hats. The background is filled with green foliage and tree trunks. A semi-transparent green box is overlaid on the upper left portion of the image, containing the title text.

Building a Healthy, Active Ontario

***Andrew Pipe, CM, MD
Minto Prevention & Rehabilitation Centre,
University of Ottawa Heart Institute***

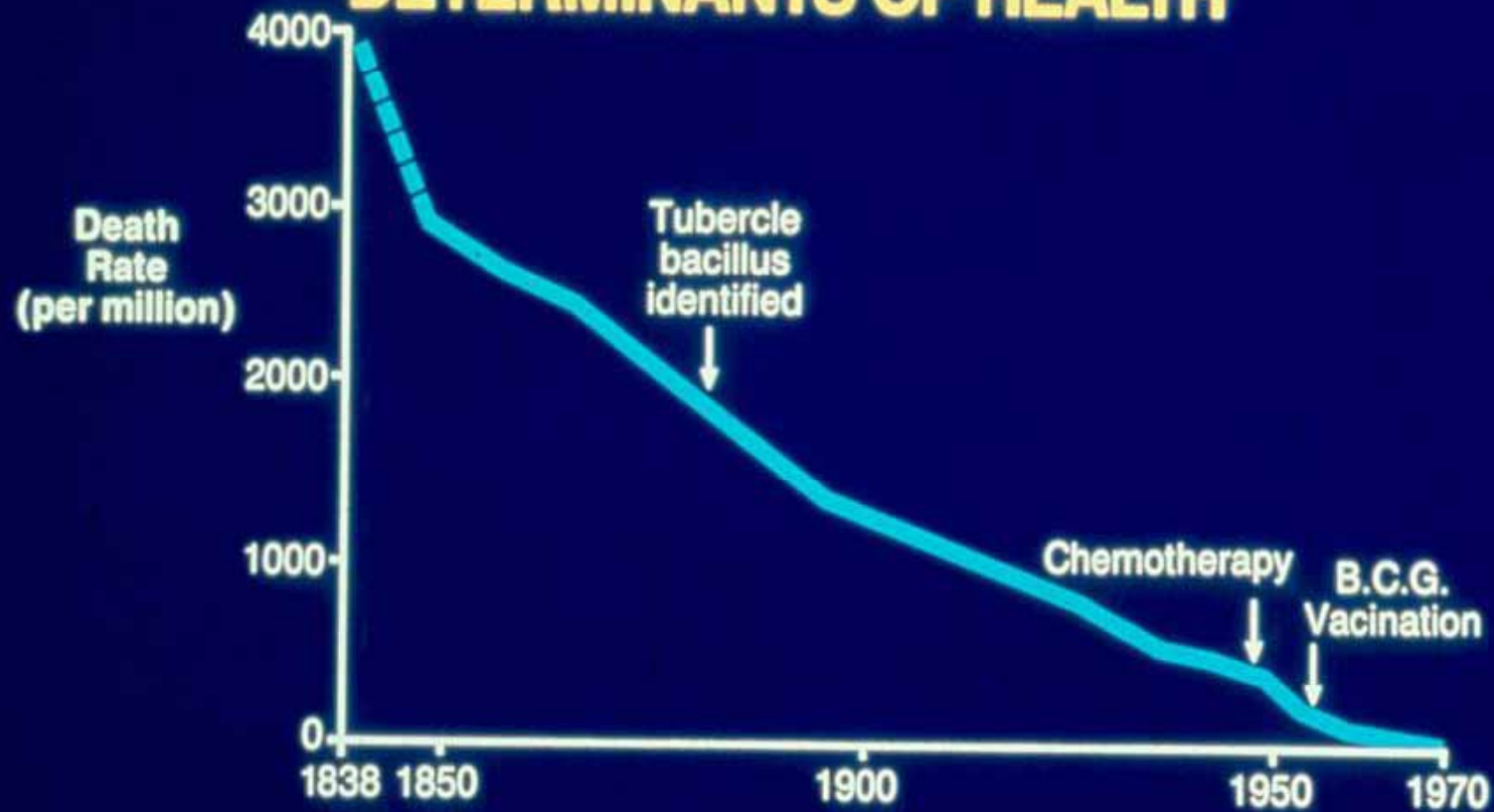


Louis Pasteur

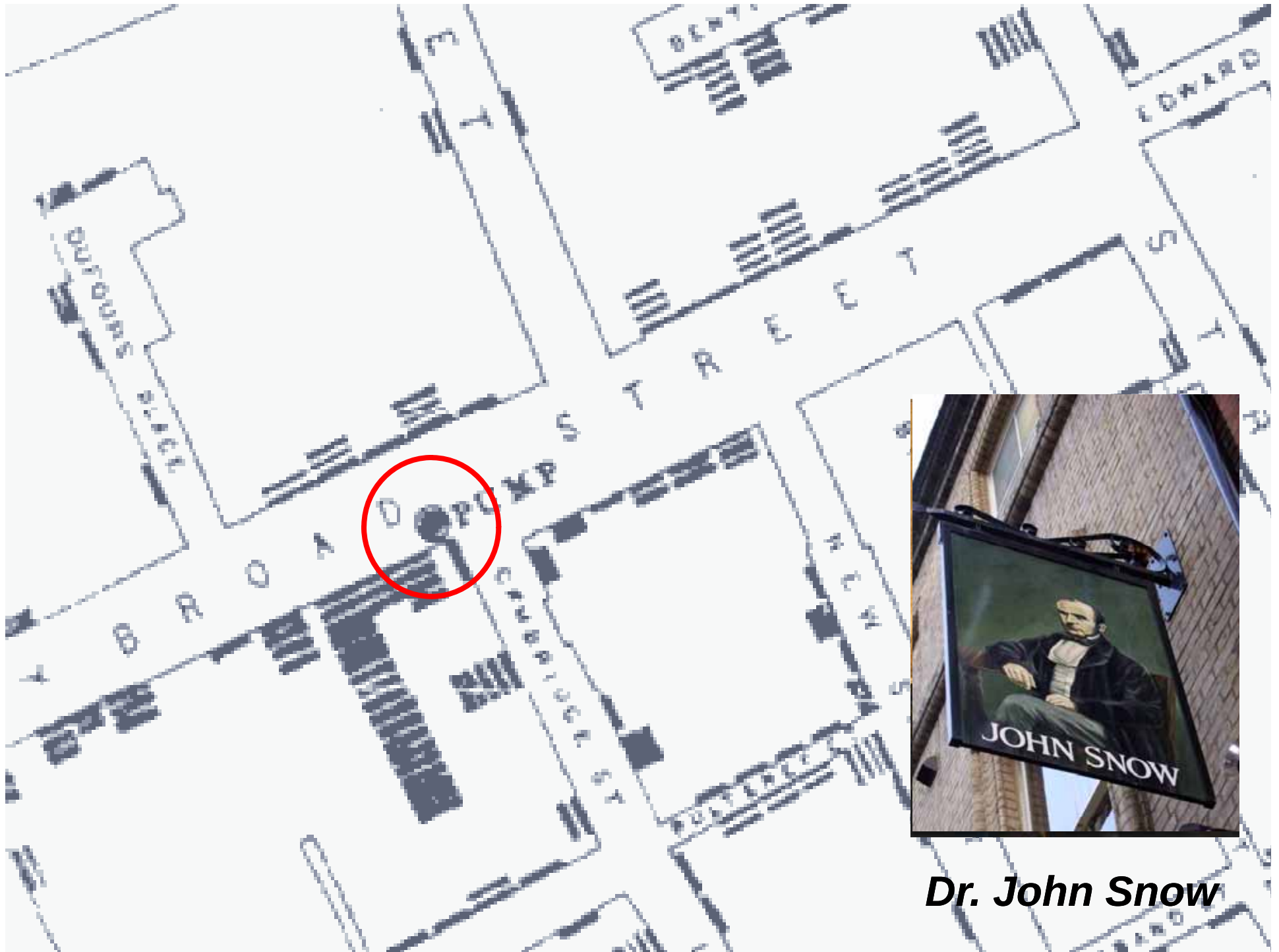
***“Whenever I meditate about a disease,
I always think of preventing it ...
... rather than finding a cure.”***



DETERMINANTS OF HEALTH



Source: McKeown, 1979



Dr. John Snow



THE CHAMPLAIN
CARDIOVASCULAR DISEASE
PREVENTION NETWORK

RÉSEAU DE PRÉVENTION DES
MALADIES CARDIOVASCULAIRES
DE LA RÉGION DE CHAMPLAIN

Champlain Chronic Disease Risk Factor Profile (Adults 12+)

Area	CVD Mortality Rate*	Risk Factor Prevalence (%)**						
		Hyper- tension	Diabetes	Over- weight (BMI>25)	Obesity (BMI>30)	Smoking	Physical Inactivity	< 5 serv. F & V
Canada	200.7	14.4	4.6	33.3	14.8	23.0	47.3	55.2
Ontario	204.9	14.7	4.6	33.3	14.8	22.1	47.3	55.3
Champlain	206.7	14.0	6.0	36.6	14.3	21.2	43.9	54.8
Eastern Ontario	247.6	17.1	5.4	40.9	18.8	31.6	48.7	55.6
Renfrew County	257.0	16.9	5.5	36.6	18.4	27.5	47.0	58.1
LG&L	225.0	15.5	5.1	35.6	18.1	27.2	46.0	57.2
City of Ottawa	186.5	12.3	4.6	35.6	12.8	19.7	42.4	54.1

Source: Statistics Canada's health indicators data (2005)*, Canadian Community Health Survey**



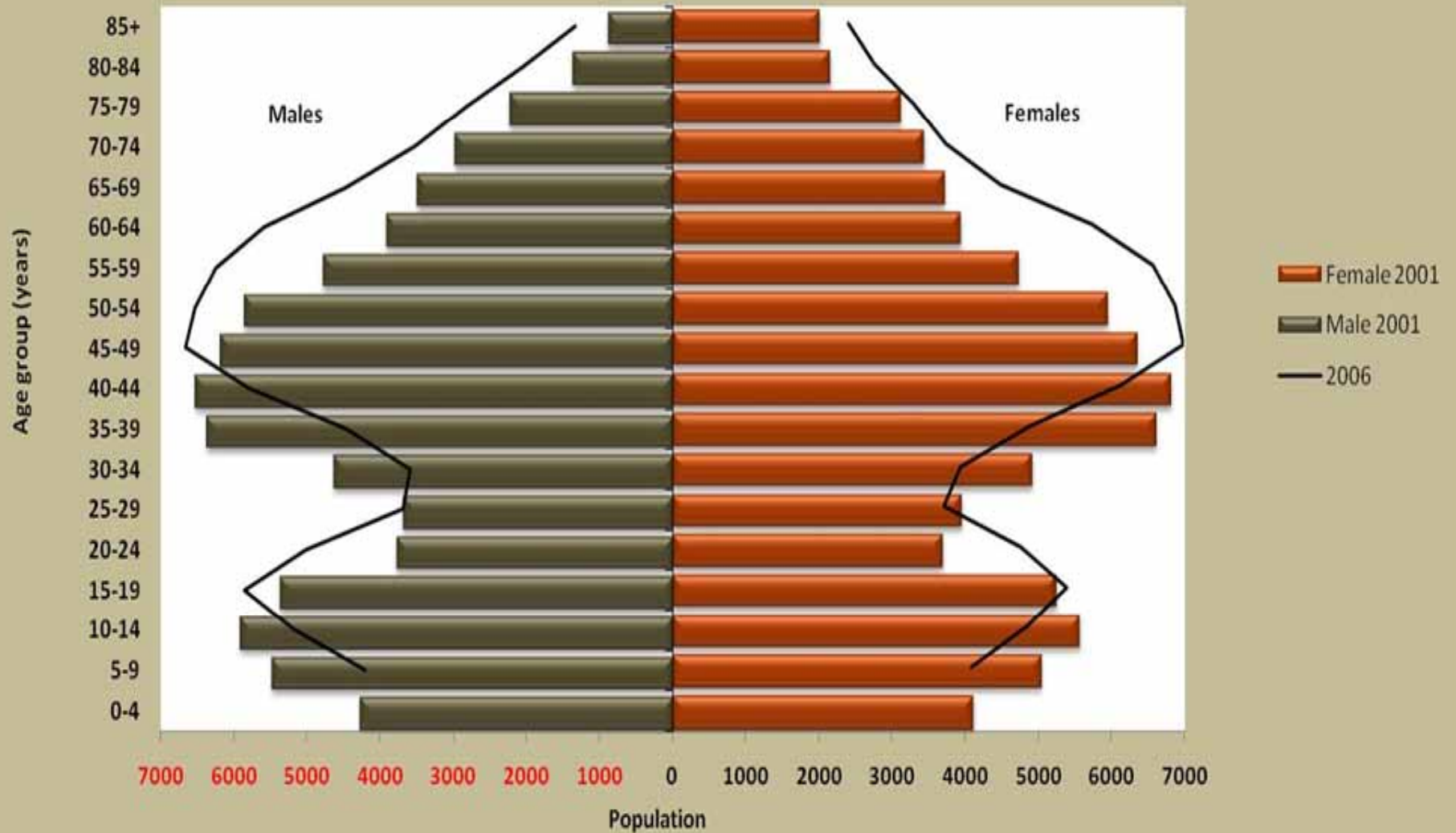
- ***Community Assessment Data for Lanark, Leeds and Grenville***



Age Adjusted Leading Causes of Mortality in LGL 2005 (source: PHPDB)

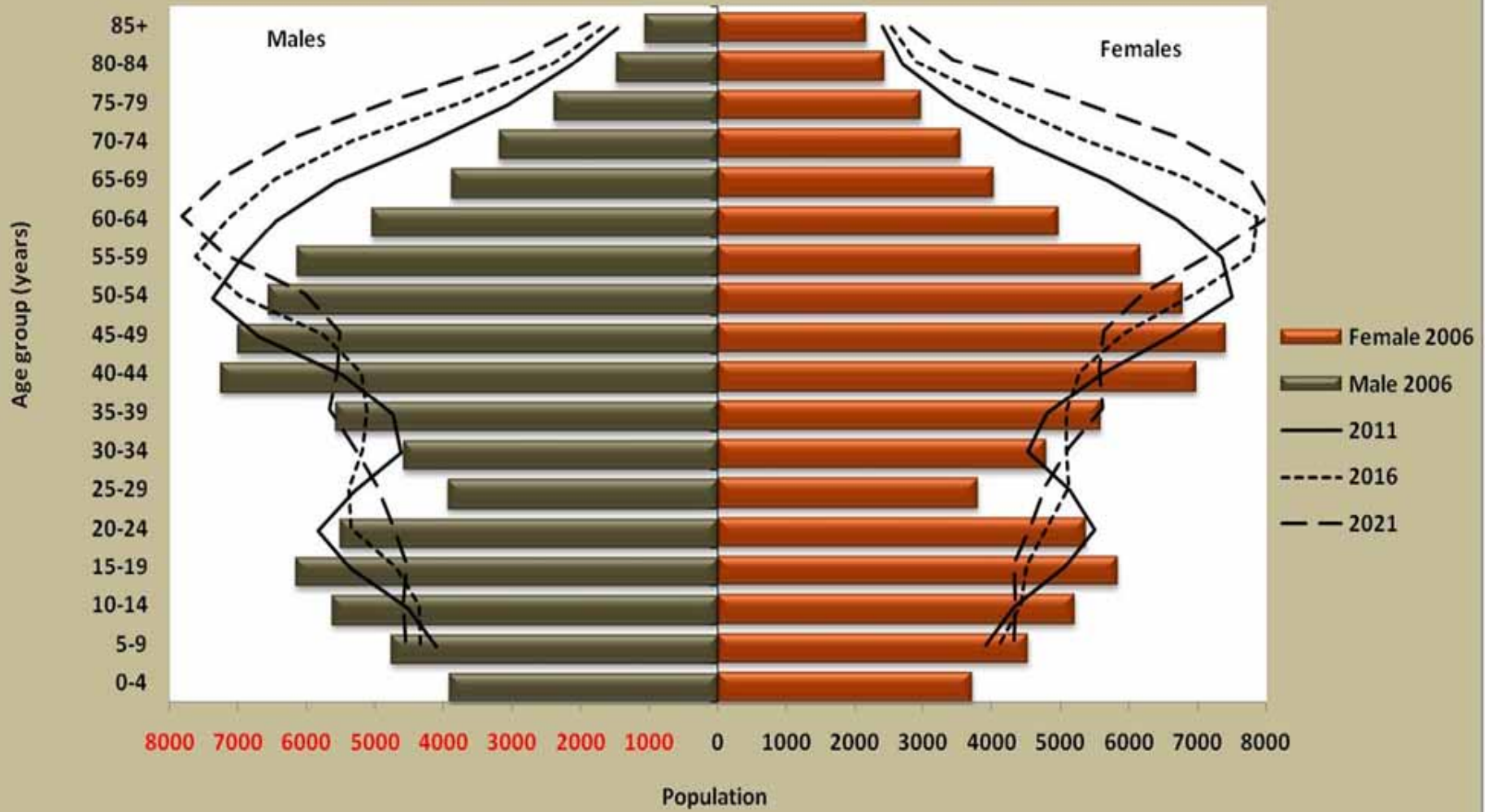
Cause	Rate	Count
Diseases of Heart	144.1	373
Cancer of Lung and Bronchus	59.9	141
Cerebrovascular Diseases	45.2	121
Chronic Obstructive Pulmonary Disease	29.6	76
Accidents and Adverse Effects	28.1	56
Cancer of Colon and Rectum	25.0	58
Diabetes Mellitus	23.7	61
Pneumonia and Influenza	20.0	53
Alzheimer's	15.5	43
Cancer of Breast	13.8	34

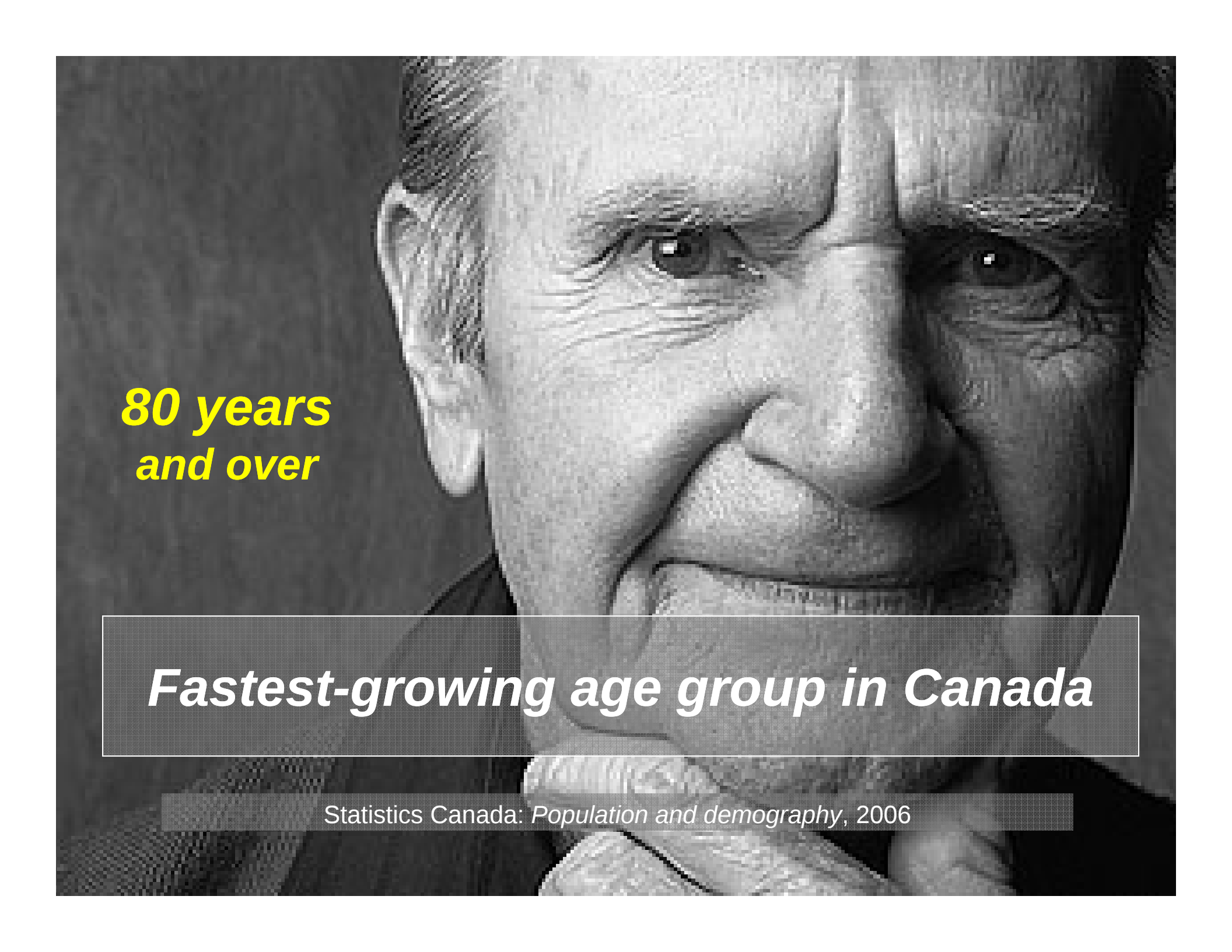
Population Distribution Pyramid by Sex for Leeds, Grenville & Lanark





Projected Population Distribution by Sex for Leeds, Grenville & Lanark 2006, 2011, 2016, 2021



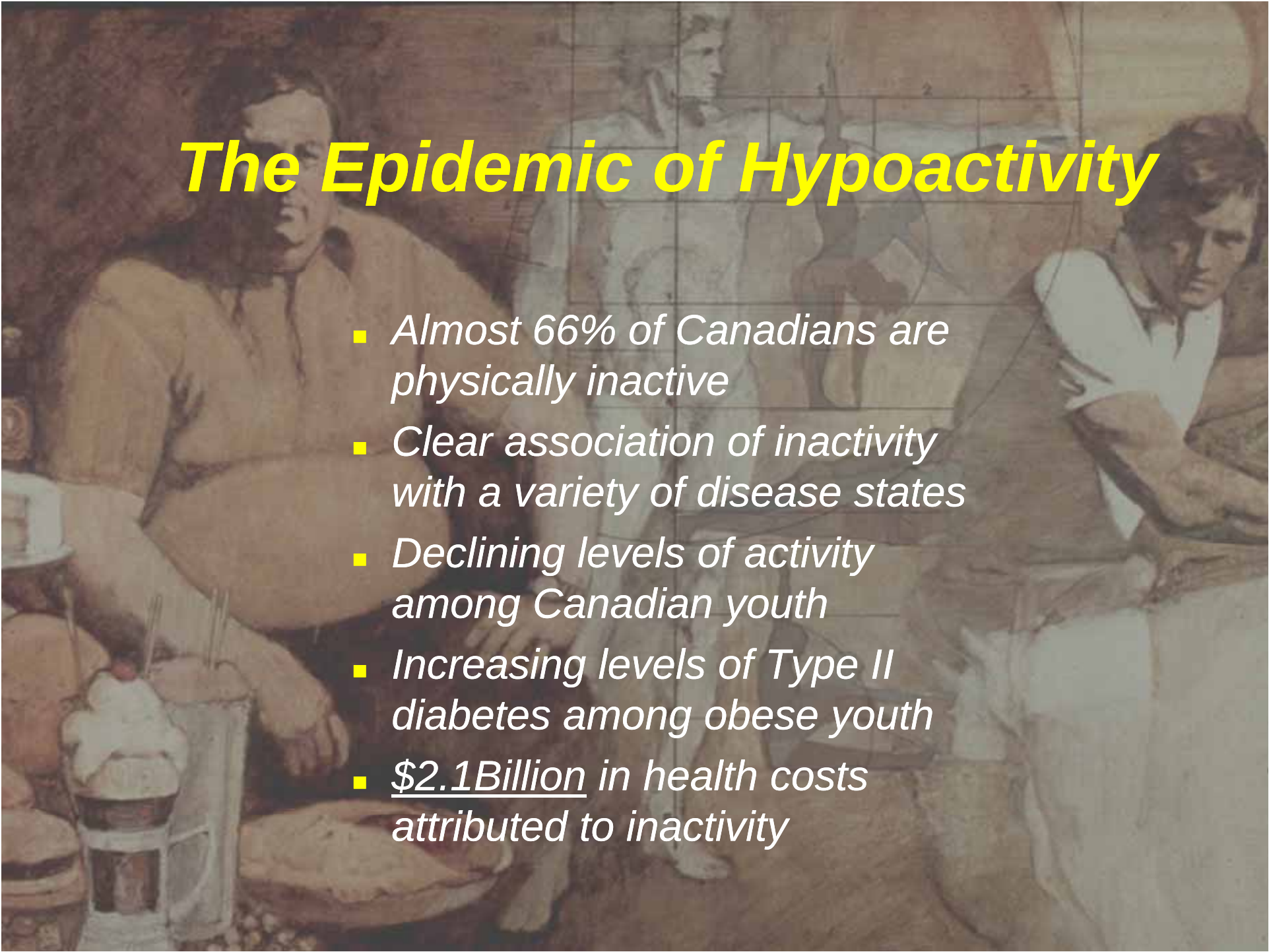


**80 years
and over**

Fastest-growing age group in Canada

Statistics Canada: *Population and demography*, 2006





The Epidemic of Hypoactivity

- *Almost 66% of Canadians are physically inactive*
- *Clear association of inactivity with a variety of disease states*
- *Declining levels of activity among Canadian youth*
- *Increasing levels of Type II diabetes among obese youth*
- *\$2.1Billion in health costs attributed to inactivity*



"Can Johnny come out and eat ?"

“Unless effective interventions to reduce obesity are developed, the steady rise in life expectancy observed in the modern era may soon come to an end and the youth of today may live shorter lives than their parents.”

N Engl J Med 2005 Mar;352(11):1138-1145





“The history of epidemics is the history of disturbances in human culture.”

Rudolf Virchow

-
-
-
-
-
-
-
-



“for the ordinary Canadian child ... physical fitness ... seems to be a decreasing function of age from the time we put him behind a desk in our schools.”

Bailey, 1974

-
-
-

A Major Public Health Issue:

Two thirds of Canadians are not active enough to achieve health benefits.

Two thirds of Canadian children are not active enough for optimal growth and development

Canadian Fitness and Lifestyle Research Institute



A photograph of three surgeons in an operating room, wearing blue scrubs and surgical masks. They are focused on a patient, with one surgeon using a surgical microscope. The scene is brightly lit, and the surgeons are wearing blue surgical caps. The text is overlaid on the left side of the image.

Perfect care *during
acute events would
prevent or postpone
8% of all deaths*

Am J Prev Med 2009;36(1):82-88

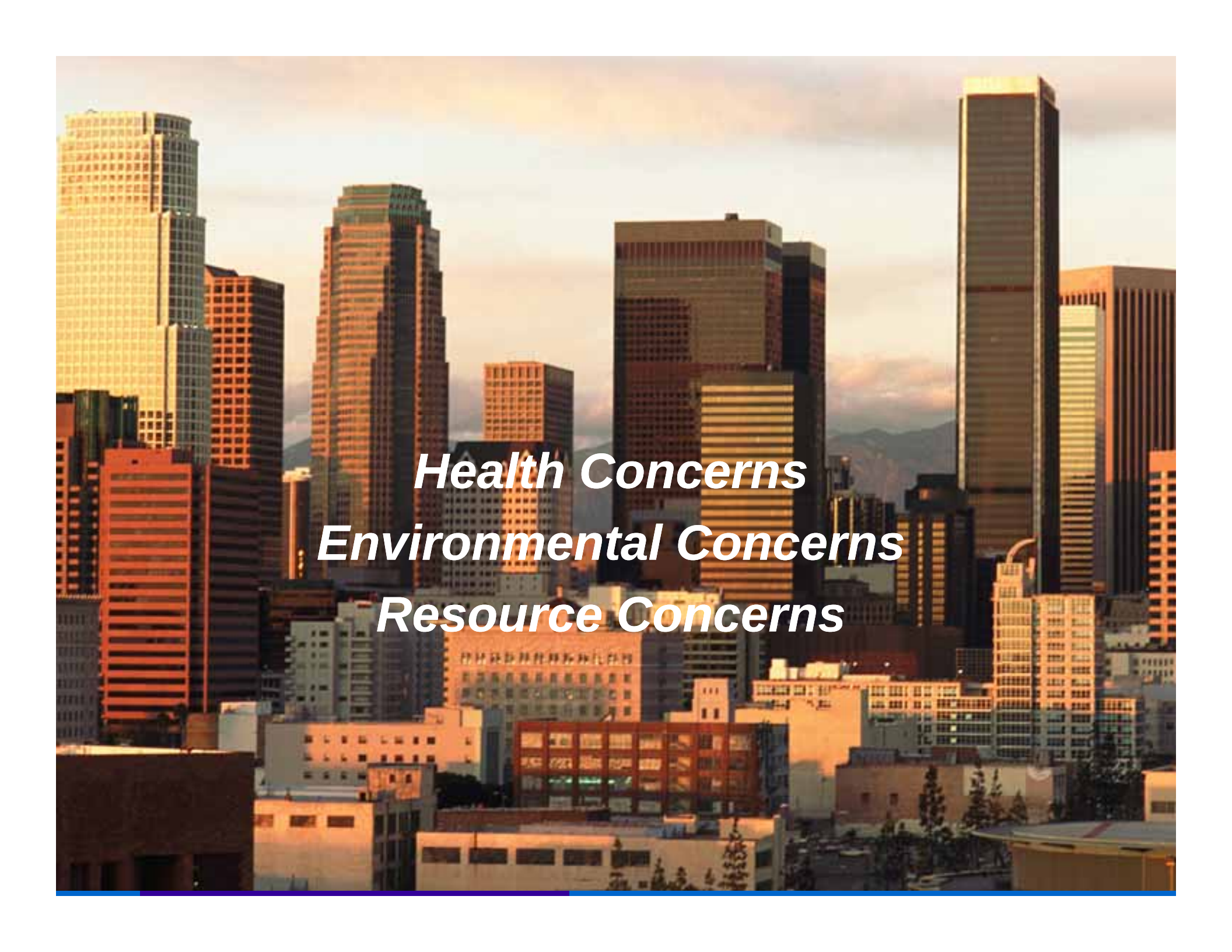
-
-
-

Importance of Primary Prevention

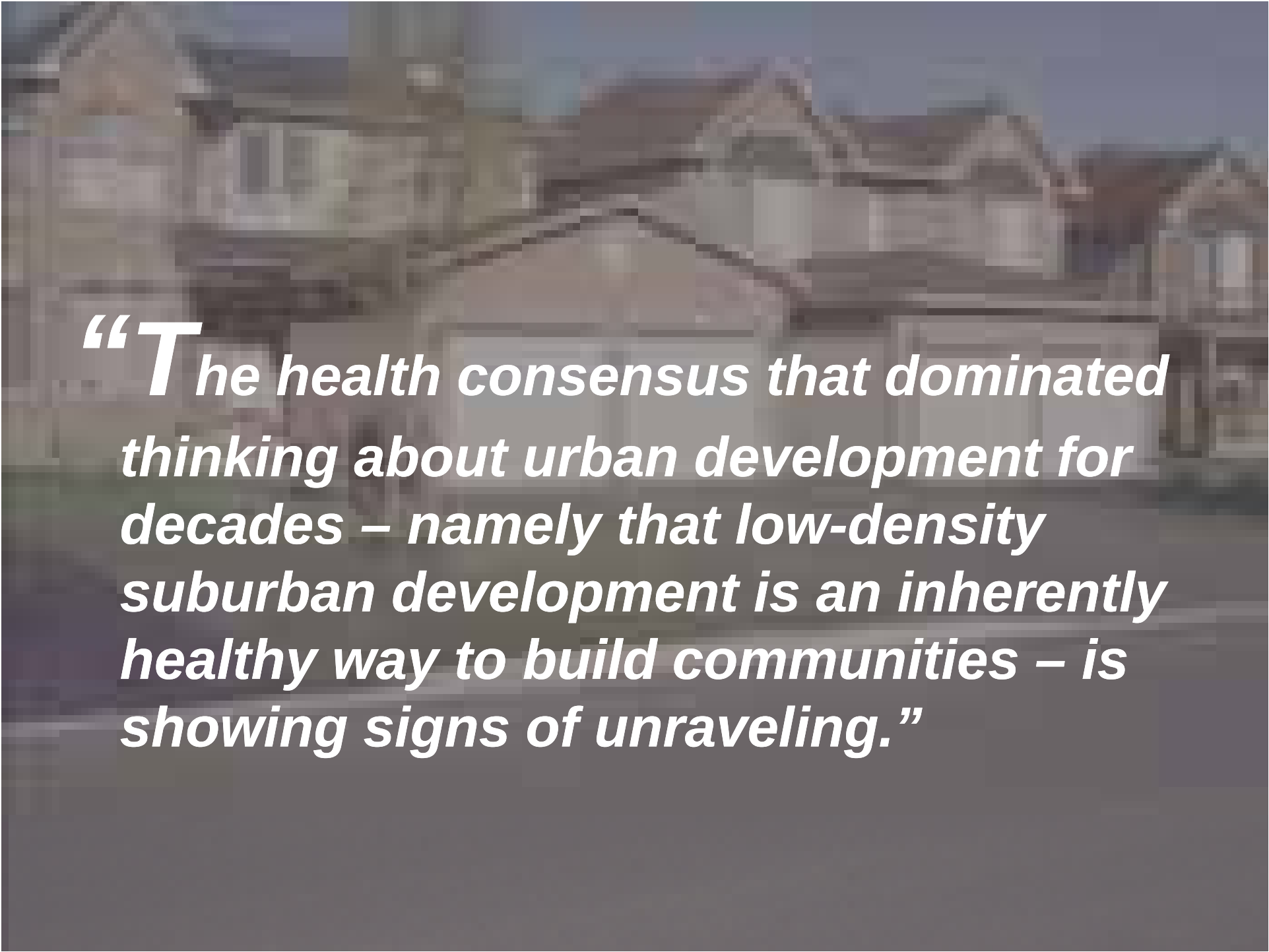


***Reducing risk
factors before first
heart disease event
would prevent or
postpone 33% of
all deaths***

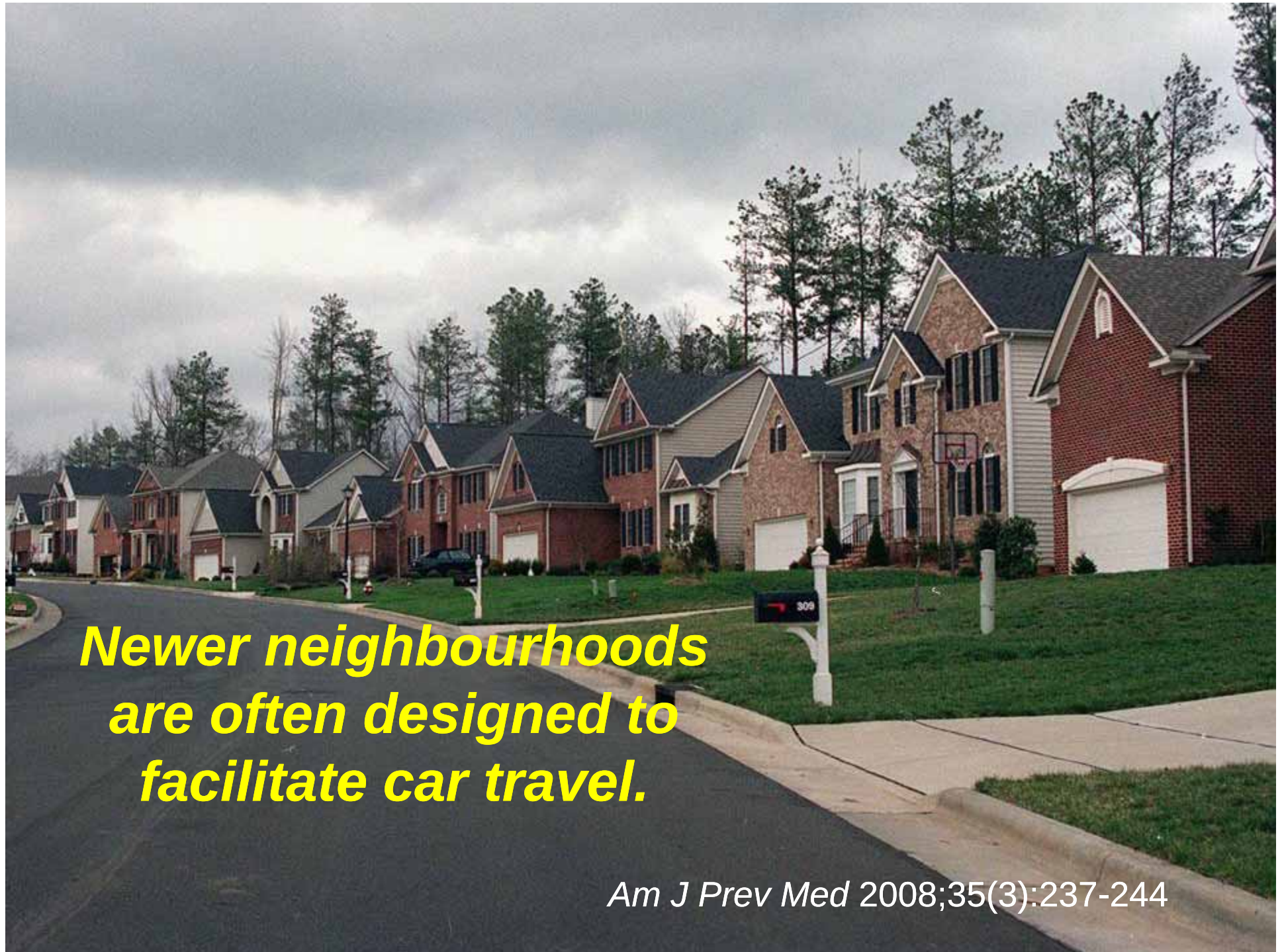
Am J Prev Med 2009;36(1):82-88



***Health Concerns
Environmental Concerns
Resource Concerns***



“The health consensus that dominated thinking about urban development for decades – namely that low-density suburban development is an inherently healthy way to build communities – is showing signs of unraveling.”



***Newer neighbourhoods
are often designed to
facilitate car travel.***

Am J Prev Med 2008;35(3):237-244

-
-
-

High Density

Industrial
Era

Slums
Overcrowding
Pollution



Infectious Disease

Mixed Density

New
Urban

Healthy
Engagement
& Activity

Low Density

Suburban

Isolation
Alienation
Pollution



Chronic Disease

-
-
-

Walkable Neighbourhoods



***Older
neighbourhoods
were often designed
with pedestrians
in mind.***

Am J Prev Med 2008;35(3):237-244

-
-
-

Walkable Neighbourhoods

***Adding a decade to the
average age of
neighbourhood housing
decreases risk of
obesity by:***

***8% in women
13% in men.***



Am J Prev Med 2008;35(3):237-244

-
-
-
-
-
-
-
-

-
-
-

Impacts of Planning Policies



MVA's
Noise pollution
Stress
Curtailed social life
Physical Inactivity

-
-
-

The Fate of the Commuter



***A commuter who
spends 2 hours each
day commuting...will
spend the equivalent
of 11 40 - hour weeks
sitting in their car
each year!***

-
-
-

Obesity Relationships

	Likelihood of Obesity
<i>Each additional hour spent in car per day</i>	<i>6% increase</i>
<i>Each additional kilometer walked per day</i>	<i>5% reduction</i>
<i>Each quartile increase in land-use mix around home</i>	<i>12% reduction</i>

Am J Prev Med 2004;27(2):87-96

-
-
-
-
-
-
-

Travel Distances and Urban Forms

1.3 miles

vs.

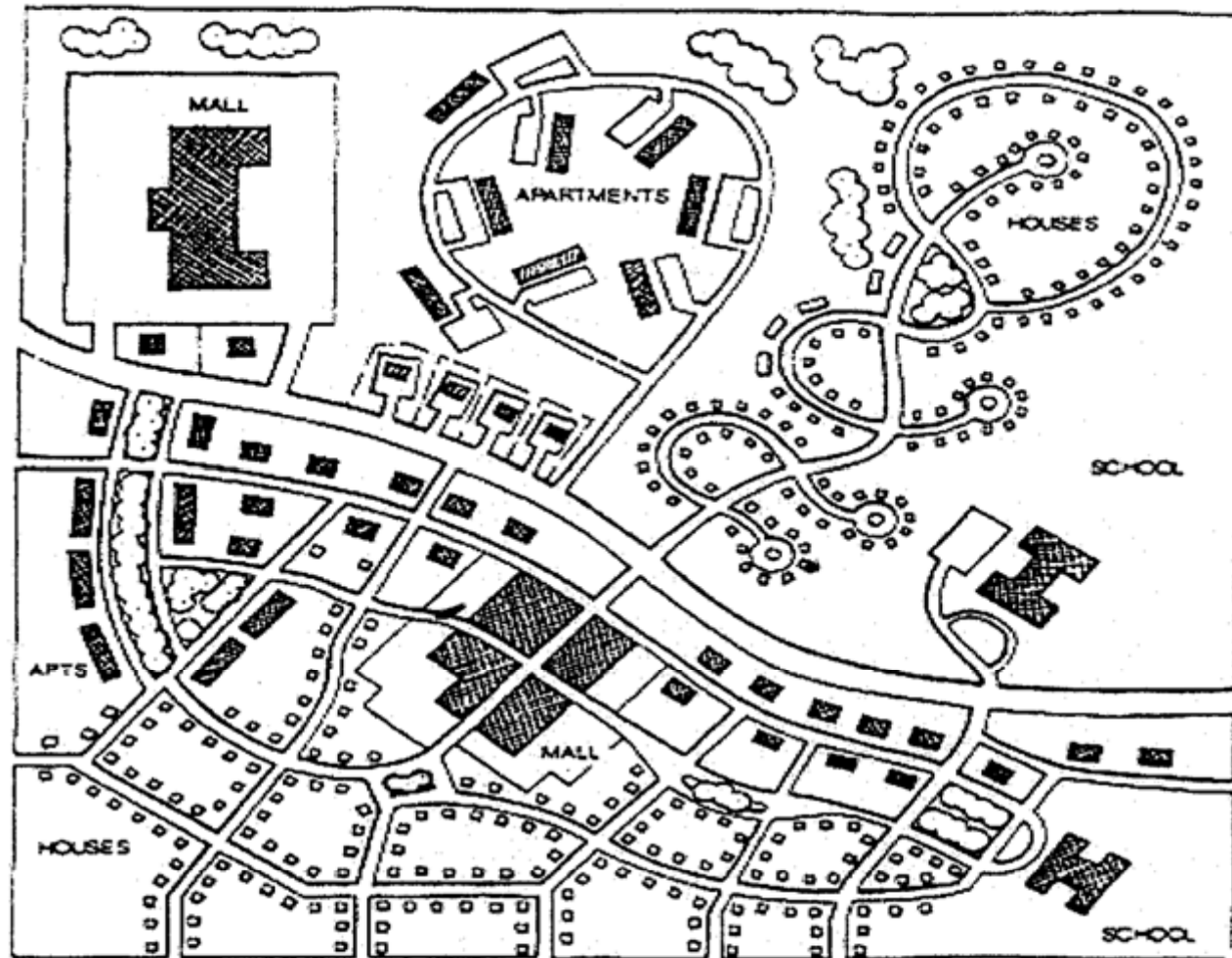
0.5 miles



Images are same scale, approximately 1 square mile

International Regional Science Review 2005;28(2):193-216

2 distinct community designs...



Ann Behav Med 2003;25(2):80-91

-
-
-

Older adults have higher levels of physical activity in neighbourhoods with:

- ***Walking/hiking trails***
- ***Public parks***
- ***Biking lanes/trails***



Medicine & Science in Sports & Exercise 2005;37(10):1774-1784

-
-
-
-
-
-
-
-



Lack of access to local parks is positively associated with obesity and inactivity.

Am J Health Promotion 2010;24(4):267-283

-
-
-

Active Transportation

91% of Canadian children have bicycles...

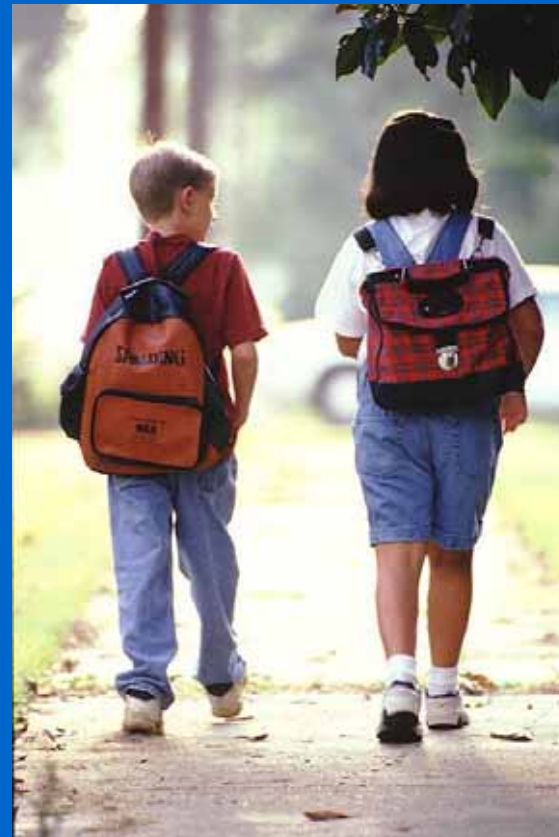
5% ride them to school !



-
-
-

Walking or Biking to School

Active commuting to school is associated with higher physical activity levels at other times during the day.



Am J Prev Med 2005;29(3):179-184

-
-
-

Physical Activity and Health Costs

A 10% increase in the proportion of Canadians who are physically active could save \$102 million annually from the treatment of ischemic heart disease.



The Conference Board of Canada

•
•
•

The Built Environment

We are 80 percent urbanized

***We spend almost 90 percent
of our time indoors – and 5
percent in our cars!***

-
-
-

Urban Planning



A young boy with short brown hair, wearing a bright yellow t-shirt, is holding a blue basketball with both hands. He is looking upwards and to the left with a focused expression. The background is a blurred blue structure, likely part of a playground or sports facility.

***Children in neighborhoods with good access
to playgrounds, parks, & recreational facilities
engage more in sports.***

Int J Pediatric Obesity 2008;3:152-159

Children in neighborhoods with good access to playgrounds, parks, & recreational facilities spend less time in front of computer or TV screens.

Int J Pediatric Obesity 2008;3:152-159





Children in neighborhoods with good access to playgrounds, parks, & recreational facilities have a lower probability of being overweight or obese.

Int J Pediatric Obesity 2008;3:152-159

Rethinking Recreation



Club de marche intérieur

Hiver 2011

- Quand?** Les jeudis de 9 h 30 à 10 h 30.
Pas besoin de s'inscrire.
- Pour qui?** Pour les gens de tous âges
- Où?** Centre communautaire de Crysler
(16, rue Third à Crysler)

C'est gratuit!



Le club de marche vous permet de:

- Améliorer votre forme physique
- Rencontrer des gens
- Marcher à votre propre rythme

Partenaires:



Centre de santé
communautaire
de l'Estrie



UNIVERSITÉ DU QUÉBEC
À TROIS-RIVIÈRES
INSTITUT DE CARIOLOGIE
DE TROIS-RIVIÈRES

THE ONTARIO
TRILLIUM
FOUNDATION

LA FONDATION
TRILLIUM
DE L'ONTARIO

**Nous remercions le Centre communautaire de
Crysler pour l'utilisation du local.**

Get W.I.T.H. It!

En Avant, MARCHE!

•
•
•

Older adults have higher levels of physical activity in neighbourhoods with:



- ***Swimming pools***
- ***Tennis courts***
- ***Skating rinks***

Medicine & Science in Sports & Exercise 2005;37(10):1774-1784

• • • • •



CHALLENGE ASSUMPTIONS.
THINK OUTSIDE THE BOX.
BUILD DIFFERENT BOXES.
CREATE PARTNERSHIPS.

A person with short blonde hair, wearing a purple t-shirt, is sitting and reading a newspaper. In the background, there are bookshelves filled with books and a table with various items like a water bottle and papers. The scene is dimly lit, suggesting an indoor setting like a library or study.

Change takes place when:

There is a “crisis”

A critical mass of scientific evidence

Shifts in social attitudes occur

Public cynicism grows

Political pressures begin to build

WHEN THERE IS LEADERSHIP

•
•
•

“Parks and Recreation”

Not a ‘nice to have’

“A Health, Social, & Environmental Essential”

Changing demographics & epidemiology

“Make healthy choices easy choices”

• • • • • • • •

Send Your Kids Outside to Play !





*Active
Vigorous
Healthy*

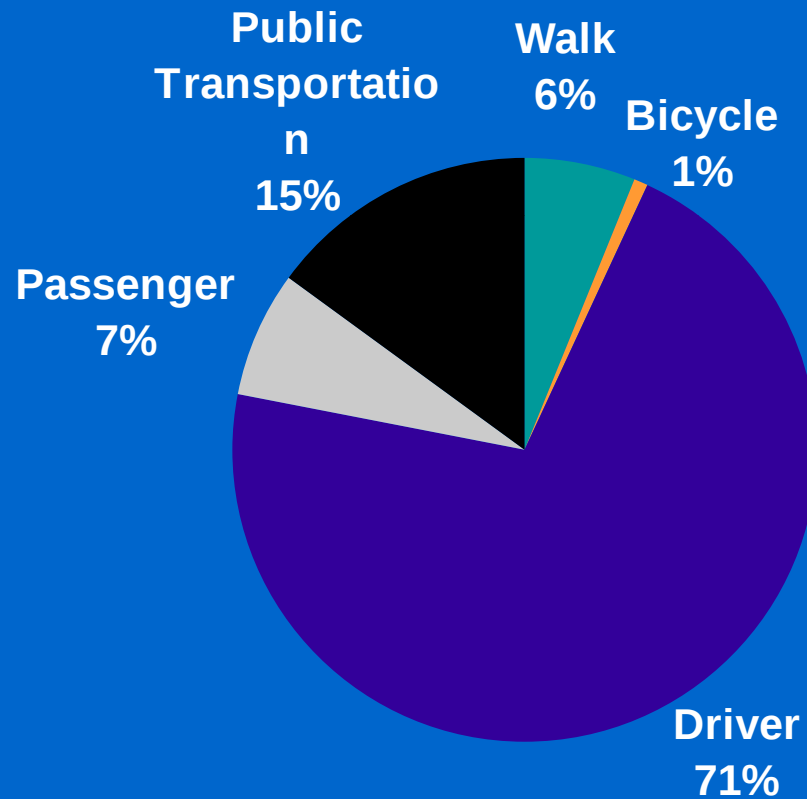
CANADIAN !

***Creative
Active
Sustainable
Environments***



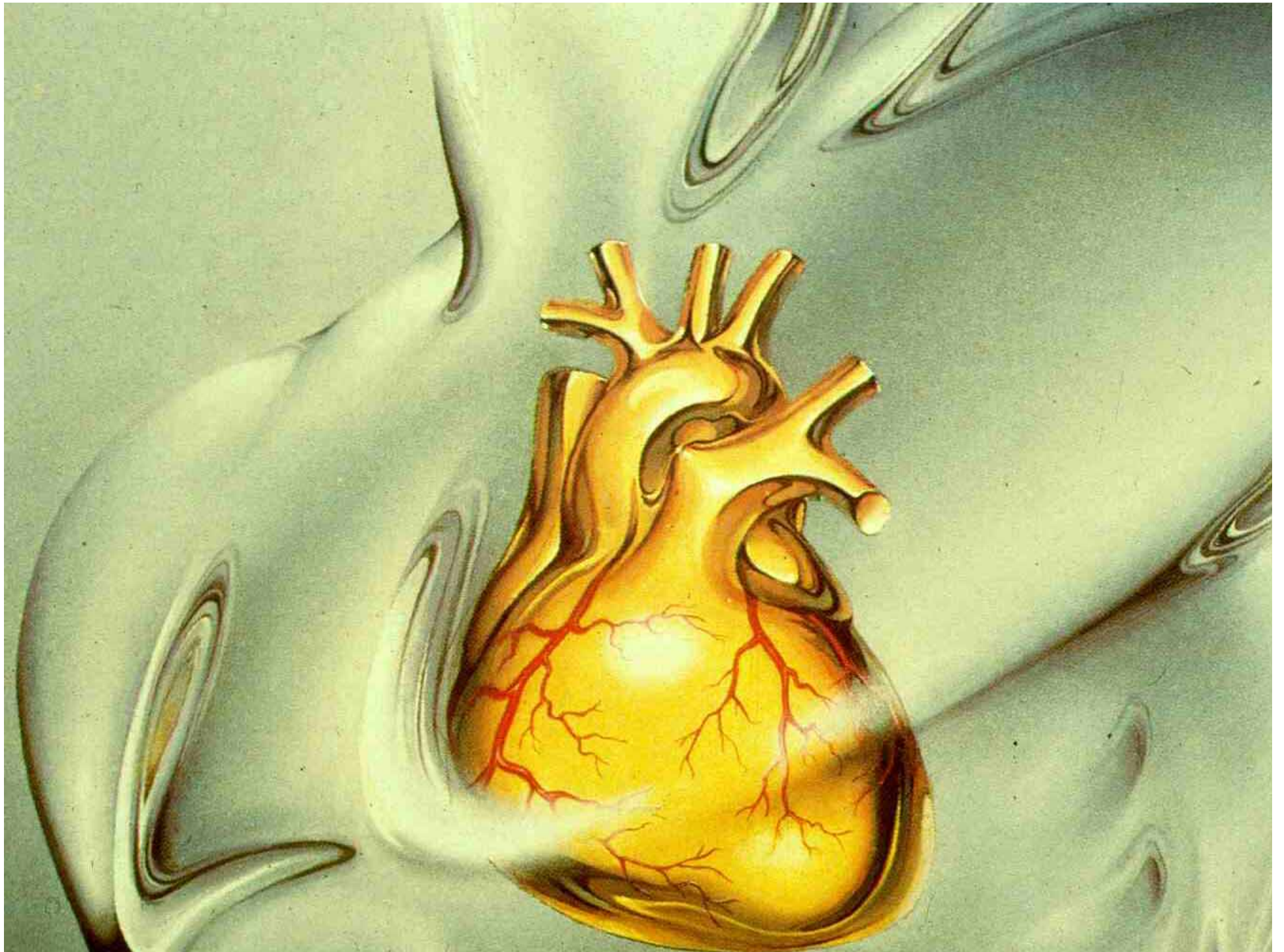
-
-
-

How Canadians travel to work



Statistics Canada: Journey to Work data, 2001

-
-
-
-
-
-
-
-



-
-
-

“...research supports the hypothesis that community design is significantly associated with moderate levels of physical activity...increased use of land-use mix, street connectivity, and residential density...can have lasting public health benefits.”

Am J Prev Med 2005;28(2S2):117-125

A close-up, low-angle shot of a child's legs and feet. The child is wearing a red soccer uniform with white stripes on the side of the shorts. They are wearing white socks and blue and white sneakers. They are standing on a green grassy field. In the background, a blue object, possibly a ball, is visible but out of focus.

90% of children and youth don't meet Canada's recommendation for 90 minutes of moderate to vigorous physical activity daily

Canada's Report Card on Physical Activity for Children & Youth 2008

Active Healthy Kids Canada

•
•
•

A single piece of advice...

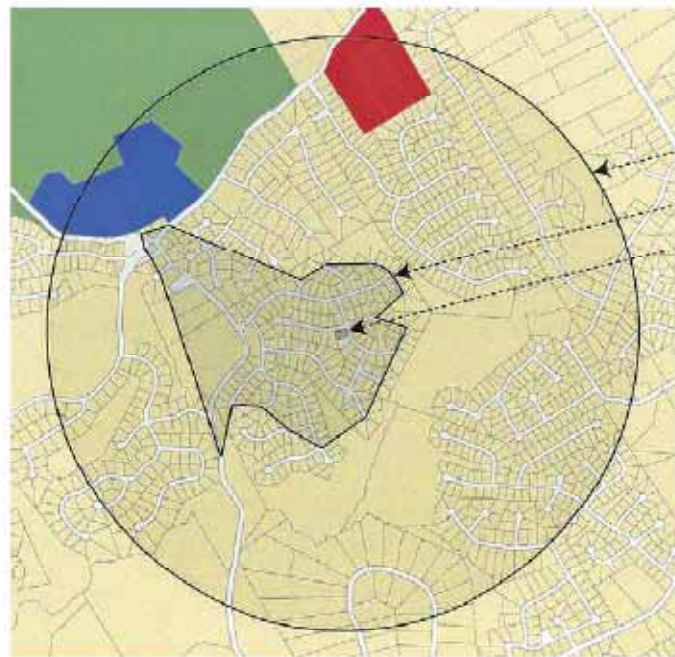


***Send
Your Kids
Outside
To Play!***

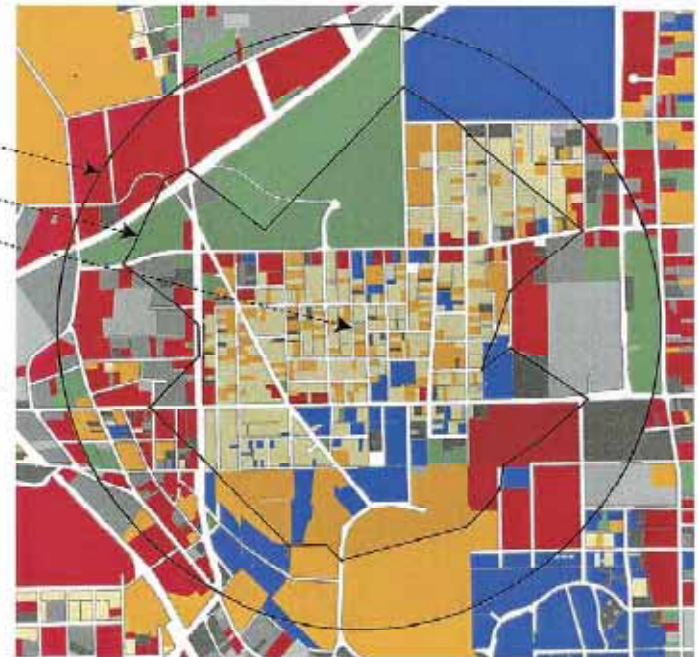
• • • • • • • •

Community Environments

Disconnected



Connected



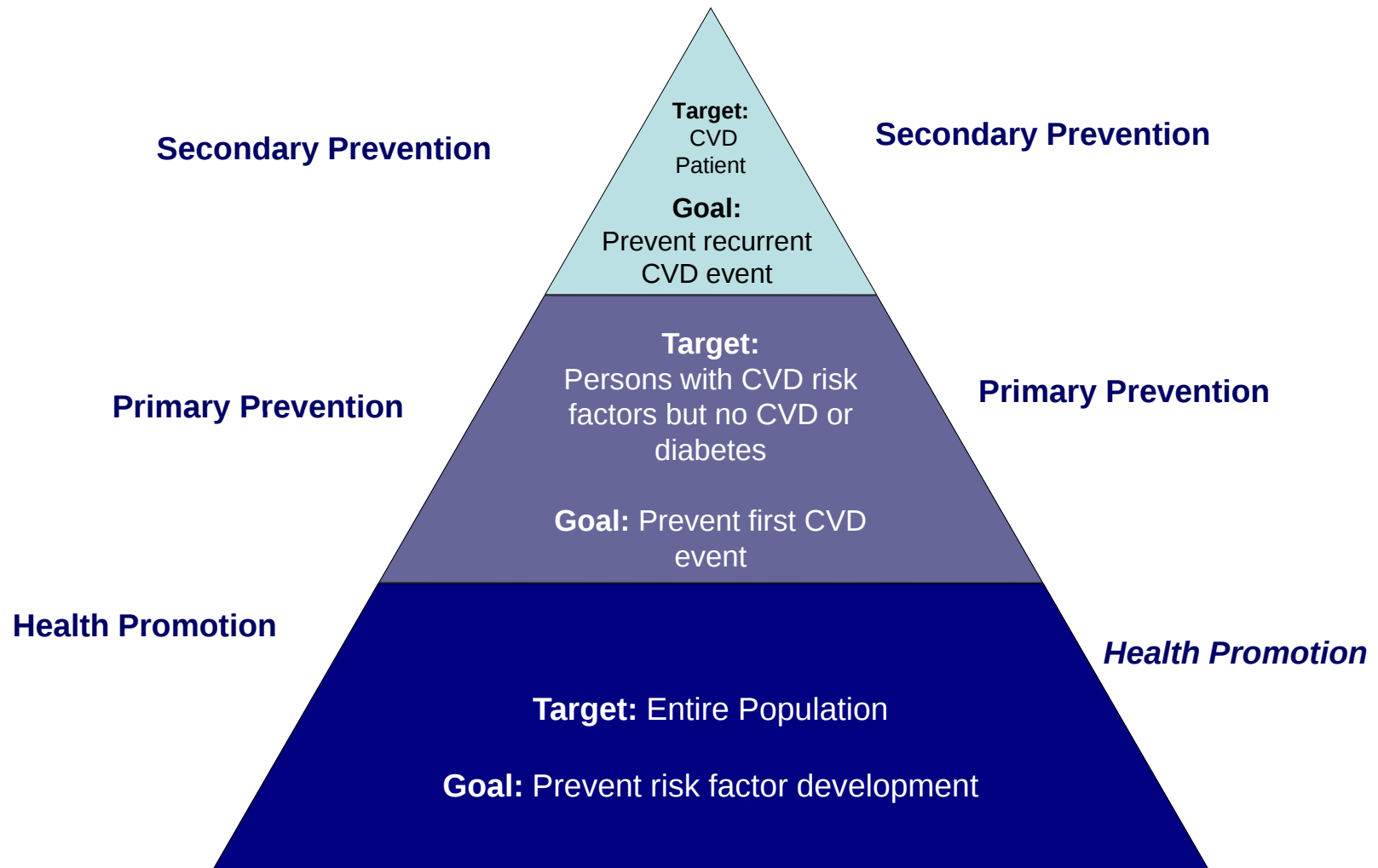
Crow-Fly Buffer

Network Buffer

Sample Household

- Single Family Residential
- Multi Family Residential
- Commercial
- Office
- Industrial
- Institutional
- Greenspace/Recreational
- Parking
- Unknown

The Continuum of Prevention



-
-
-

Walking or Biking to School



***48% in 1969
16% in 2001***

*Distance to school is
inversely associated
with physical activity.*

JPAH 2006;3(Suppl 1):S129-S138

•
•
•

“Ontario...the healthiest province ?”

Integrated approaches to activity

Novel approaches to activity programming

Integrated approaches to planning

Rethinking policies, programmes & facilities

Awareness of demographics

Recreation for ALL

Sports ? Play ? Physical Activity ?

Advocacy Advocacy Advocacy Advocacy

A photograph of a paved path along a body of water, likely a canal or river. Several people are riding bicycles on the path. The path is bordered by lush green trees on the left and a concrete wall on the right. In the background, a tall, modern building with a glass facade is visible, reflecting the warm light of the setting or rising sun. The overall scene suggests a healthy, active lifestyle in an urban environment.

In Ontario by 2015:

< 15% smokers

> 73% physically active

< 32% overweight