

# Population Health Assessment & Health Priorities

Measuring the Health of Hamiltonians

February 22, 2019

# What is Population Health Assessment?

**Population Health Assessment (PHA)** is the measuring, monitoring, and reporting of the health of the population.

– How healthy is our population?

Planning and  
Evaluation

Decision Making

Accountability

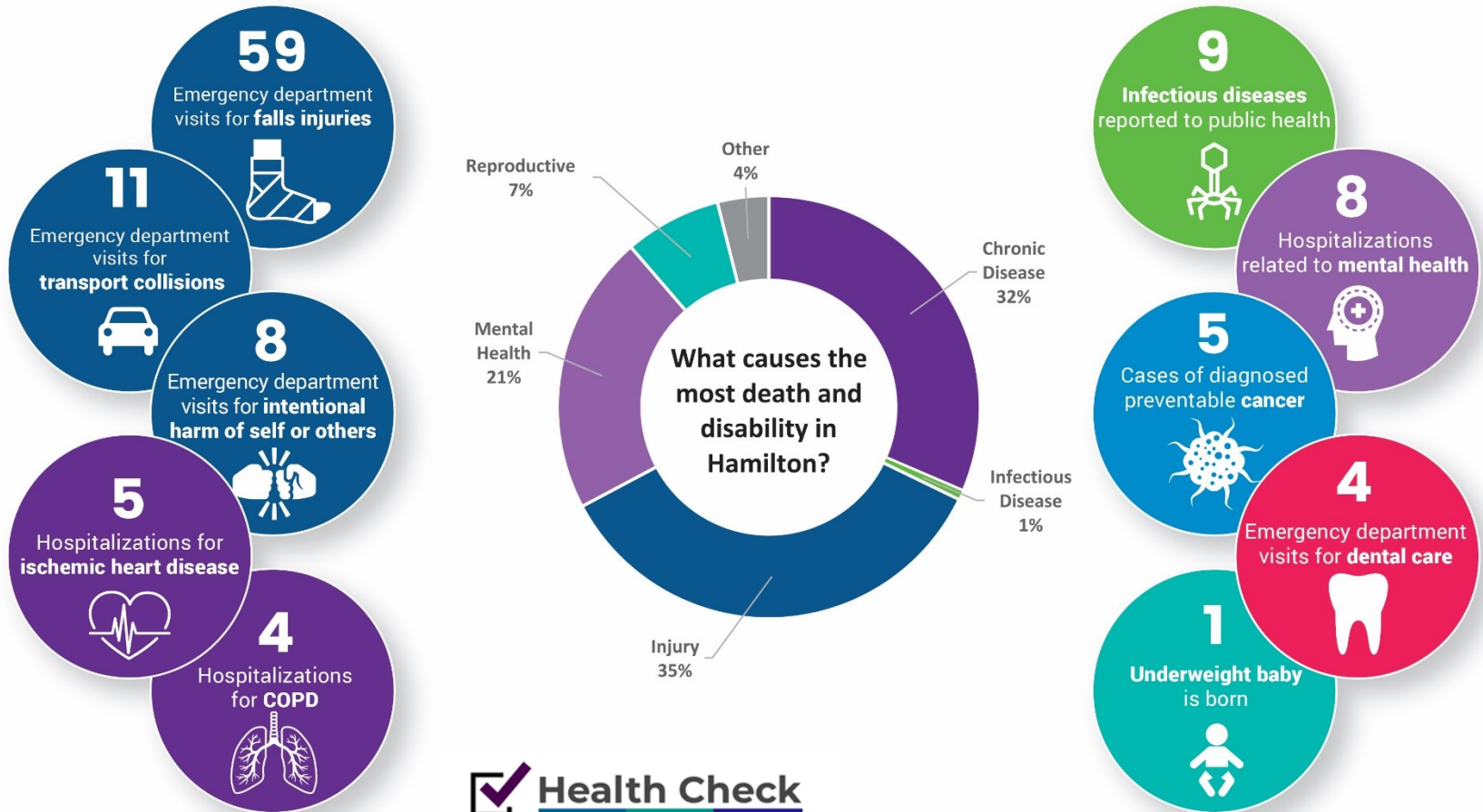
Strategic  
Spending

Policy  
Development

Awareness and  
Advocacy

# On any given day residents in Hamilton....

Each day there are approximately...



 **Health Check**  
[Hamilton.ca/HealthCheck](https://Hamilton.ca/HealthCheck)

\*Estimates are approximate and do not account for seasonality.



# WHAT MAKES CANADIANS SICK? **Healthy!**

**50%**

## YOUR LIFE

- INCOME
- EARLY CHILDHOOD DEVELOPMENT
- DISABILITY
- EDUCATION
- SOCIAL EXCLUSION
- SOCIAL SAFETY NET
- GENDER
- EMPLOYMENT/WORKING CONDITIONS
- RACE
- ABORIGINAL STATUS
- SAFE AND NUTRITIOUS FOOD
- HOUSING/HOMELESSNESS
- COMMUNITY BELONGING

**25%**

## YOUR HEALTH CARE

- ACCESS TO HEALTH CARE
- HEALTH CARE SYSTEM
- WAIT TIMES

**15%**

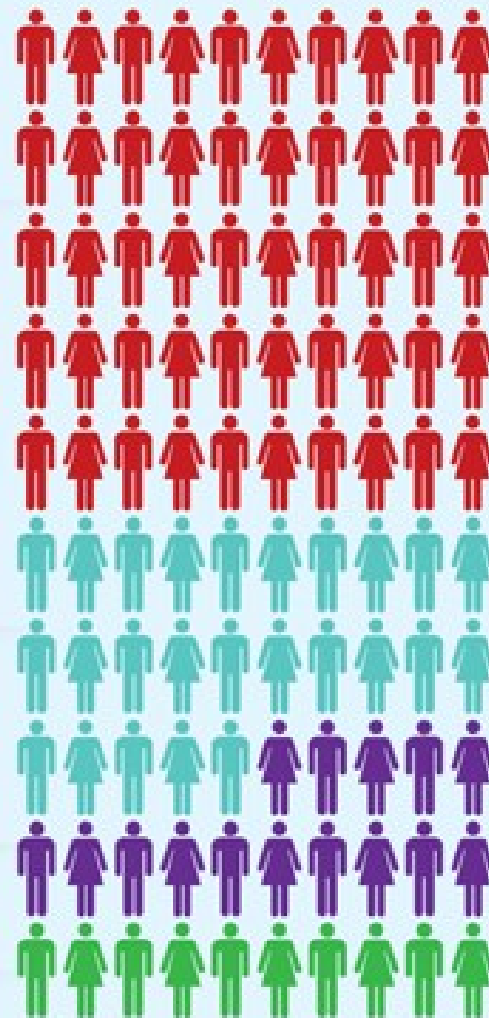
## YOUR BIOLOGY

- BIOLOGY
- GENETICS

**10%**

## YOUR ENVIRONMENT

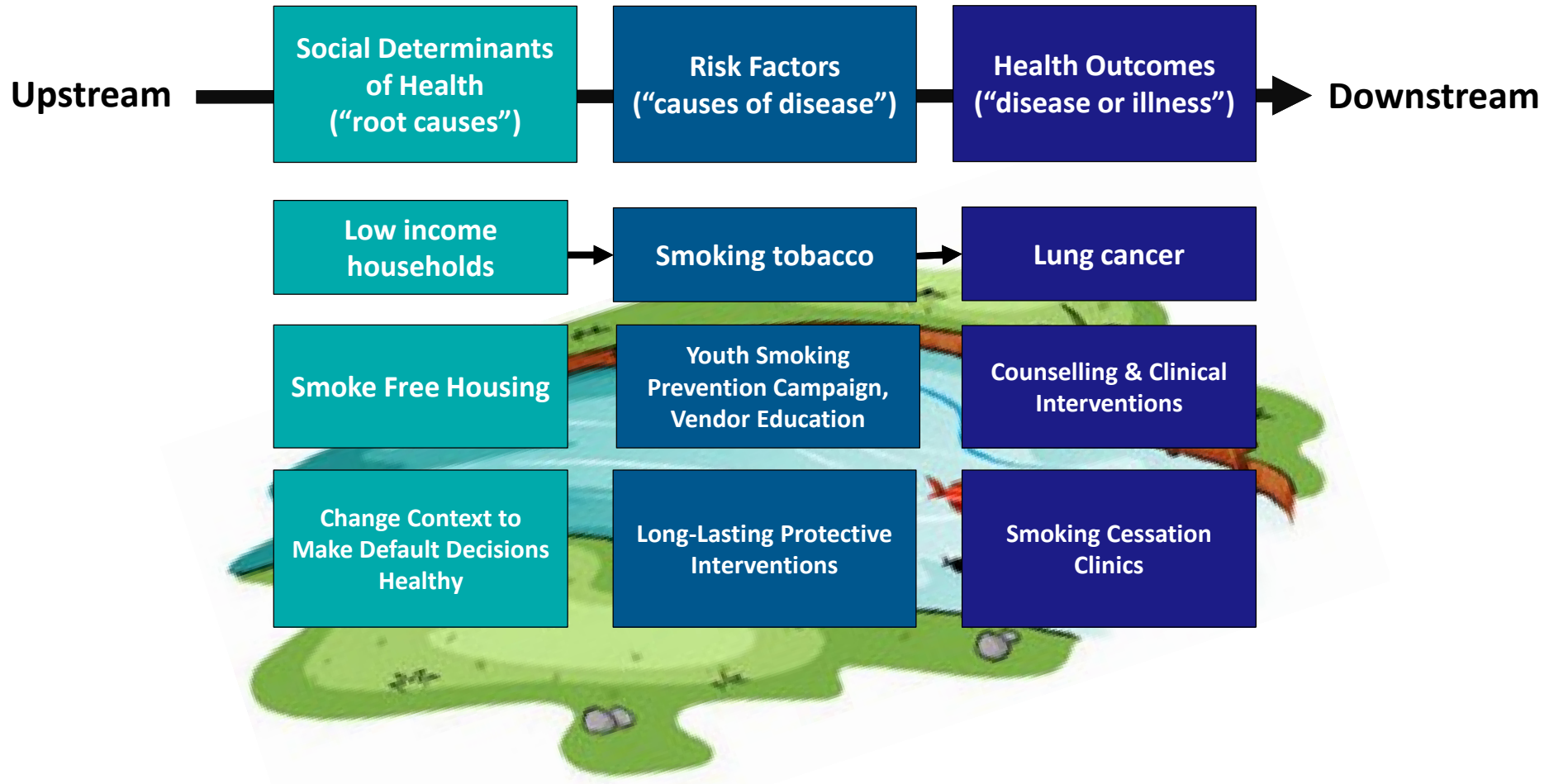
- AIR QUALITY
- CIVIC INFRASTRUCTURE



THESE ARE CANADA'S SOCIAL DETERMINANTS OF HEALTH #SDOH

Source: Canadian Medical Association.

# Upstream/Downstream



# Premature Deaths

City of Hamilton (2014-2016)

Many premature deaths could be avoided through prevention or treatment.

Total Deaths  
13,975

Premature Deaths  
(death before age 75)  
5,260

Potentially avoidable  
deaths:  
3,790

Deaths from  
preventable causes:  
2,385

(e.g., traffic collisions, vaccine-preventable diseases, STIs, lung cancer, self-harm, drug overdoses)

Deaths from treatable  
causes:  
1,405

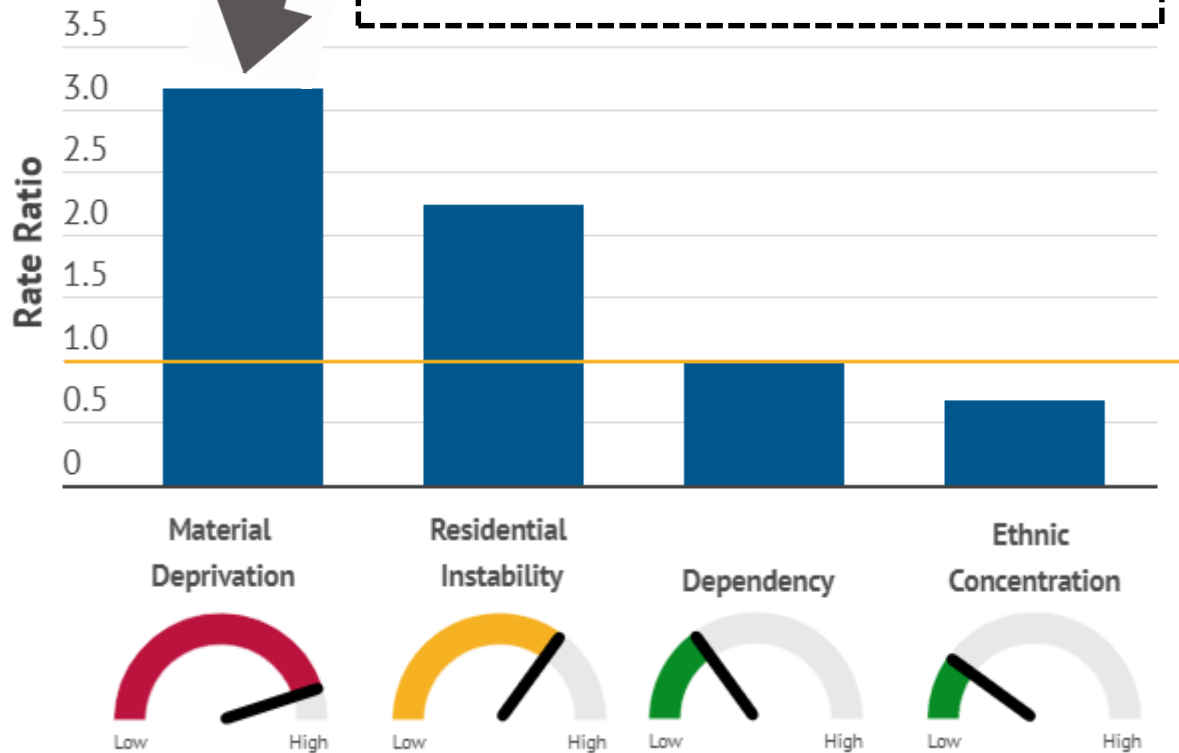
(e.g., high blood pressure, breast cancer, appendicitis, asthma, bacterial infection, pneumonia)



**45%**  
of local deaths  
under age 75  
are preventable

Do all Hamiltonians have the same likelihood of dying prematurely from an avoidable cause?

**Hamiltonians living in the most materially deprived areas are 3-times more likely to die from a potentially avoidable cause.**



## Social Determinants of Health (root causes)

**What are the social determinants for potentially avoidable deaths in Hamilton?**

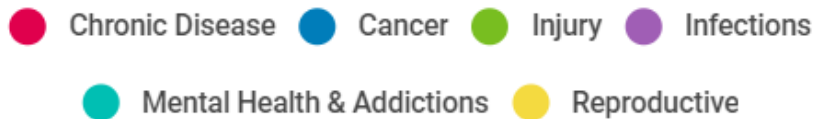
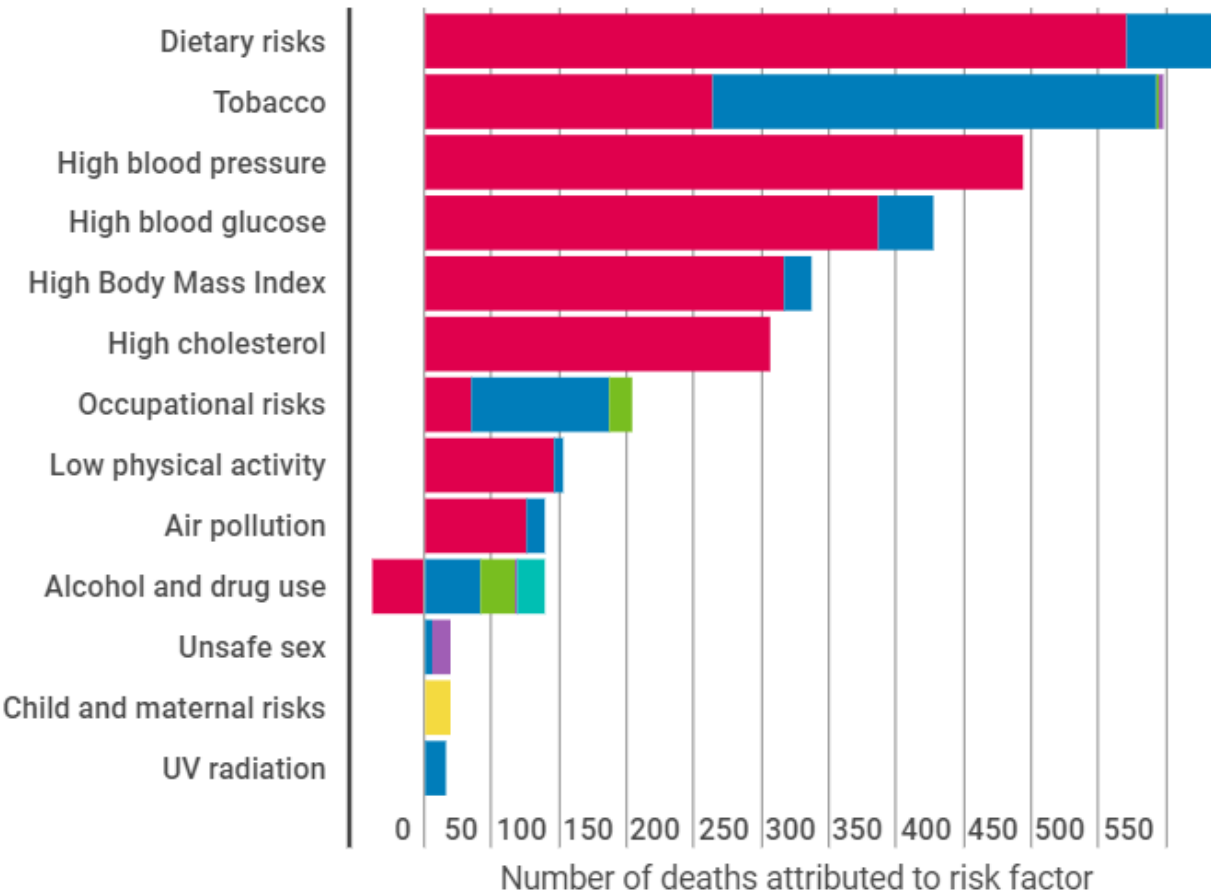
- Material deprivation is a major social determinant of potentially avoidable deaths.
- Residential instability is a moderate social determinant of potentially avoidable deaths.

“Material Deprivation” is a combined measure of:

- Low income
- Social assistance
- Unemployment
- Low education
- Lone parents
- Homes needing major repairs

Source: Health Equity Snapshots, Public Health Ontario, 2018.

Deaths caused by 'risk factors' in Hamilton (2012)



## Risk Factors (causes of disease)

What are the drivers of potentially avoidable deaths in Hamilton?

Potentially avoidable deaths in Hamilton are largely attributed to:

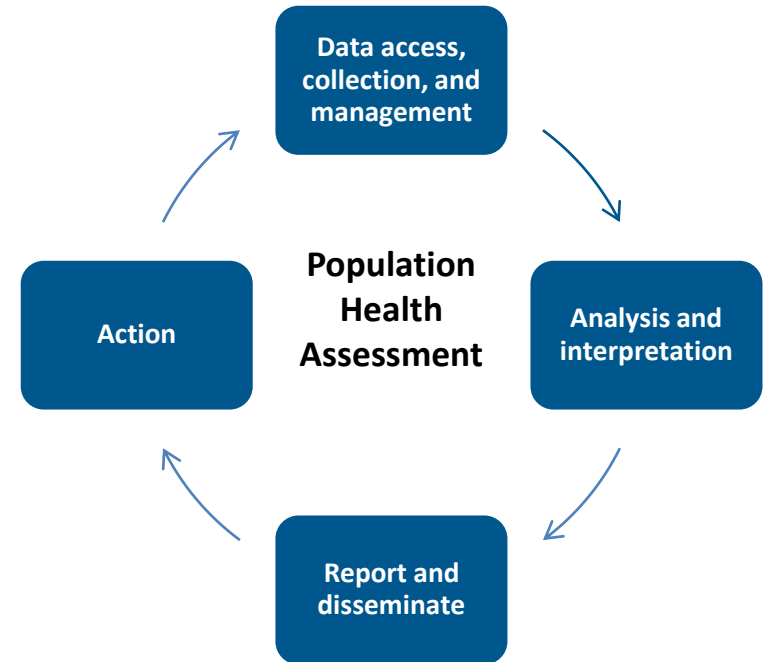
- Metabolic/dietary risks
- Substance use



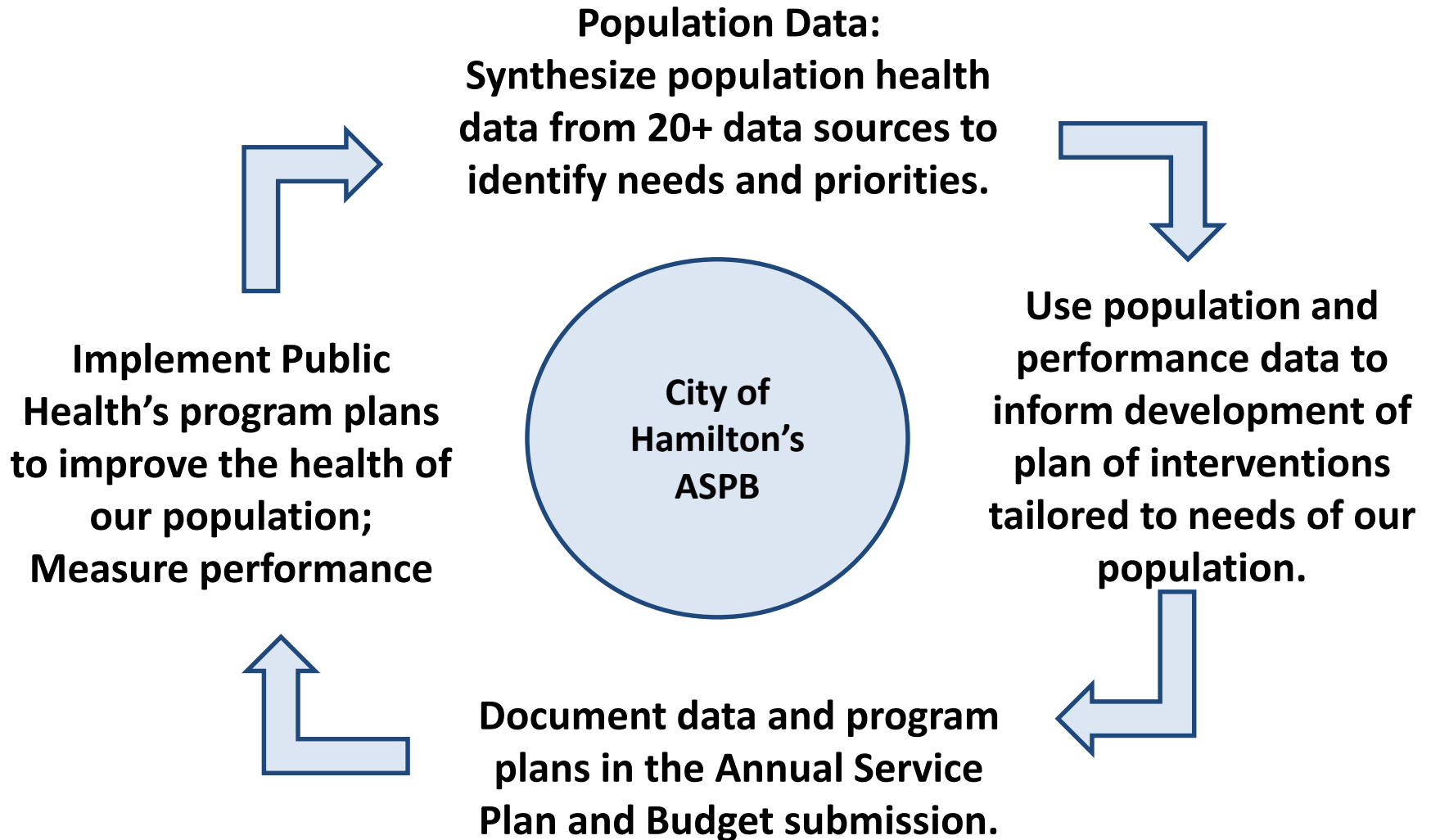


## Evidence to Action:

The BOH is required to demonstrate and document the use of population health evidence in the **Annual Service Plan & Budget (ASPB) Submission** that is submitted to the Ministry of Health and Long-Term Care annually.



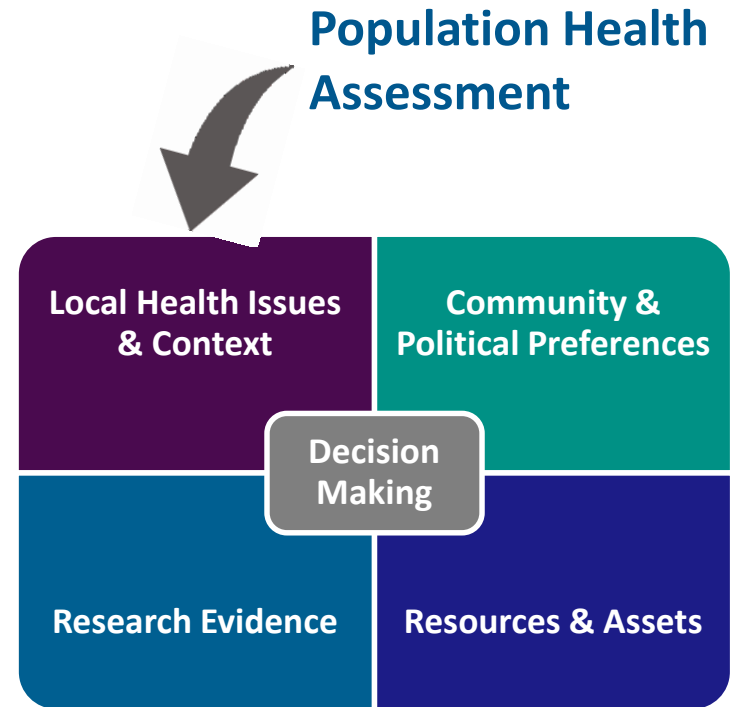
# Evidence to Action



# Our Health Priorities

Public Health Services has selected 3 priorities based on community needs:

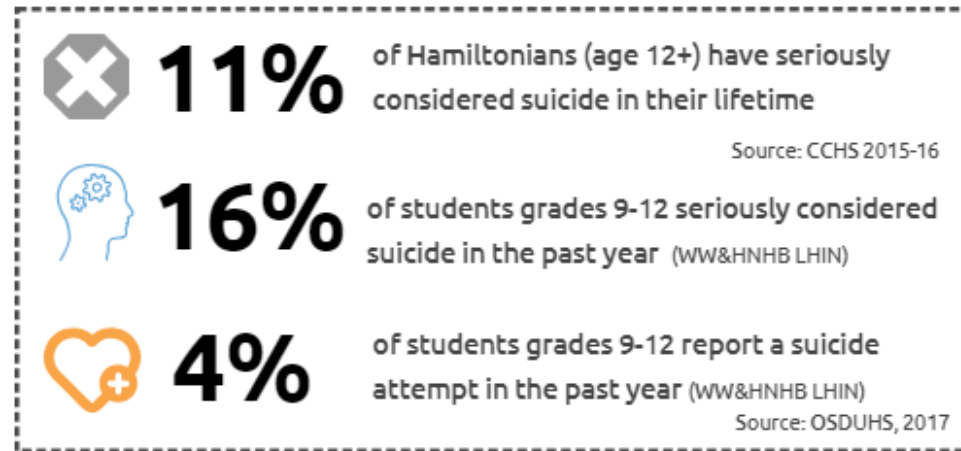
- 1. Mental Health & Addictions**
- 2. Healthy Weights**
- 3. Health Equity**



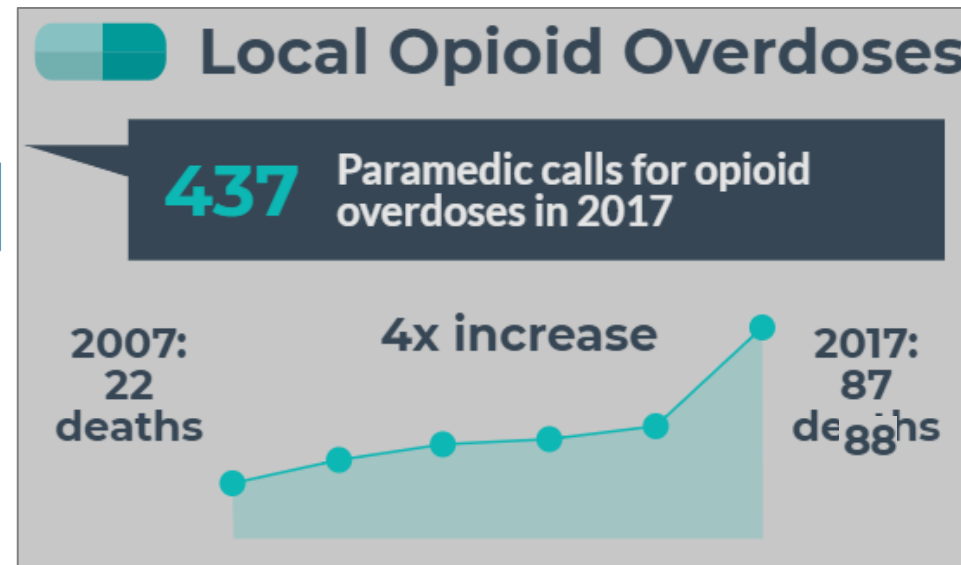
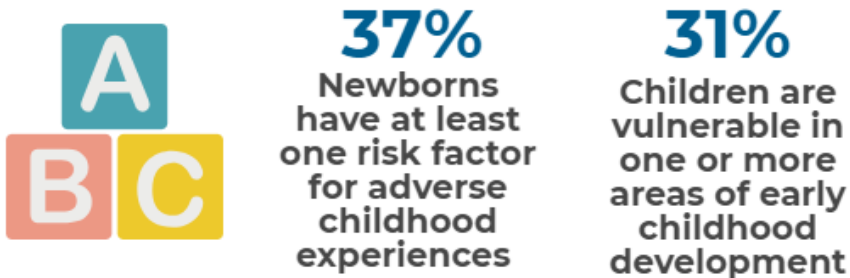
Source: NCCMT

# Mental Health & Addictions

- In Hamilton, suicide and drug overdoses are the leading causes of death under age 45.
- Both suicide and drug overdoses are trending upwards.



**Negative impacts during early life can have long lasting effects on health and well-being**



Sources: ISCIS (2014-17); EDI (2015); Opioid Tracking Tool, PHO; Hamilton Paramedic Services (2017).

Office of the Medical Officer of Health  
Public Health Services

# Mental Health & Addictions

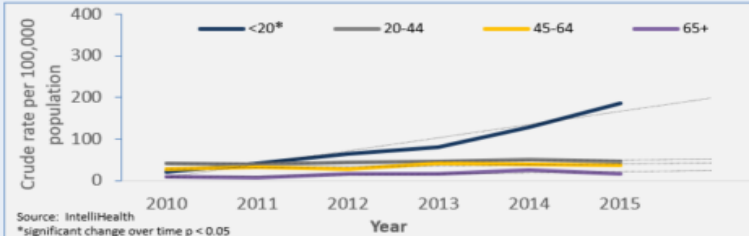
## POPULATION

**Result (Goal)** All residents of Hamilton are free of harm due to substance use and are able to enjoy the best quality of life.

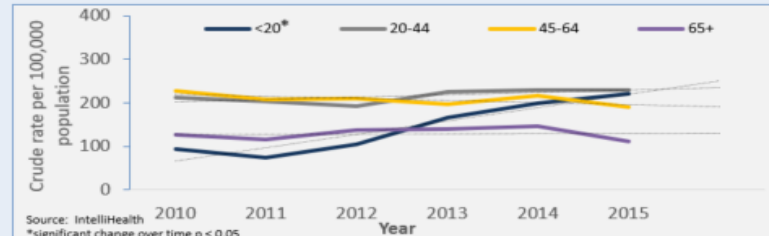


### Indicator Baselines Mental illness hospitalizations

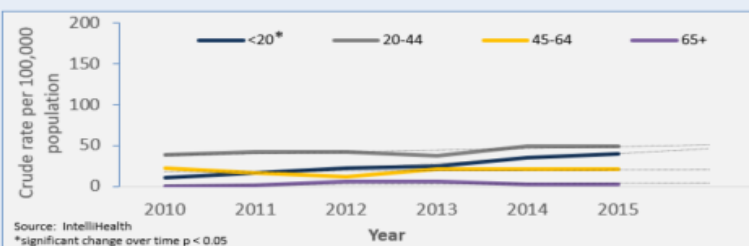
Hospitalization for anxiety disorders by age, Hamilton



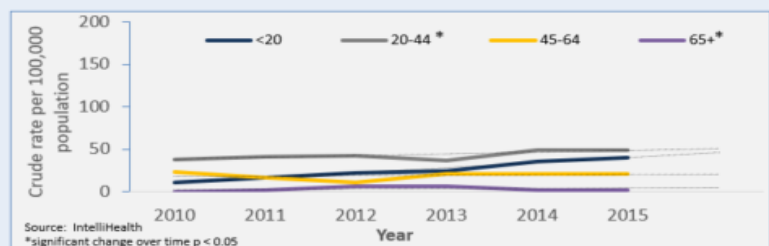
Hospitalization for mood/affective disorders by age, Hamilton



Hospitalization for selected disorders of adult personality and behaviour by age, Hamilton



Hospitalization for substance related disorders by age, Hamilton



Hospitalization for schizophrenia, delusional and non-organic psychotic disorders by age, Hamilton



# Mental Health & Addictions Public Health Action

## Strategic & System Initiatives

- Coordination and engagement in the Community Drug Strategy
- Cross-sector collaboration to improve the mental health and well-being of the community

## Promotion, Awareness, Education & Knowledge Translation

- Support the implementation of comprehensive mental well being interventions in targeted schools in Hamilton

## Screening, Assessment, Intervention & Case Management

- Alcohol, Drugs & Gambling Services
- Children & Adolescent Services

## Monitoring & Surveillance

- Hamilton Opioid Information System
- Determine priority populations to target interventions

- Excess body weight, poor diet, and physical inactivity are risk factors for many of the leading causes of disability and death in Hamilton.

# Healthy Weights

## Each year in Hamilton

**290** Deaths attributed to excess weight

**590** Deaths attributed to poor diet

**103** Deaths attributed to low physical activity

## HEALTHY EATING

Weekly cost for a family of four to eat healthy in Hamilton:

**\$187**

**1 in 7**

Hamilton households experience food insecurity



### OVERVIEW

Overweight or obese Hamiltonians by age:

Youth (12-17) 27%

Adults (18-44) 61%

Adults (45-64) 74%

Seniors (65+) 72%

**2 in 3**

Hamilton adults are overweight or obese



Overweight or obese Hamilton adults by sex:

55%

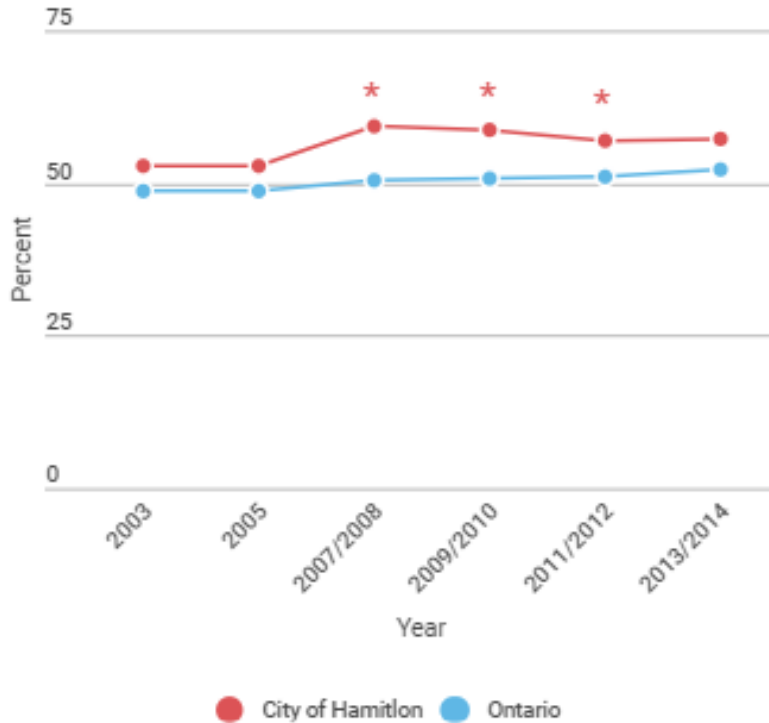
78%



Sources: Canadian Community Health Survey (2013-14), Statistics Canada; Ontario Mortality Data [2012], MOHLTC IntelliHealth.

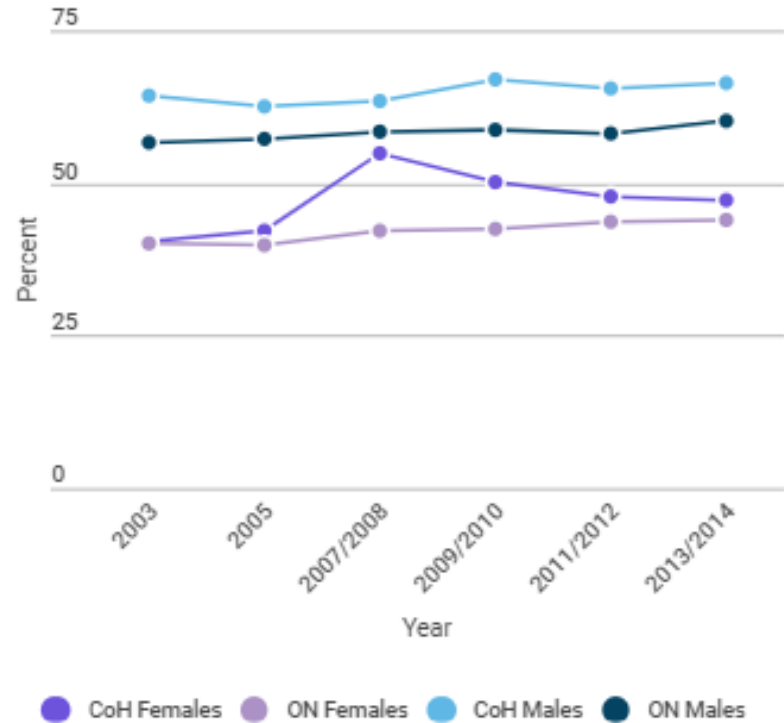
# Healthy Weights

Age-standardized self-reported **adult** combined overweight and obese rate, City of Hamilton and Ontario, 2003-2013/14



Public Health Ontario Snapshots, Canadian Community Health Survey (CCHS) 2003 to 2013-14, Statistics Canada, Ontario Share File, Distributed by Ontario MOHLTC

Age-standardized self-reported adult combined overweight and obese rate by **gender**, City of Hamilton and Ontario, 2003-2013/14

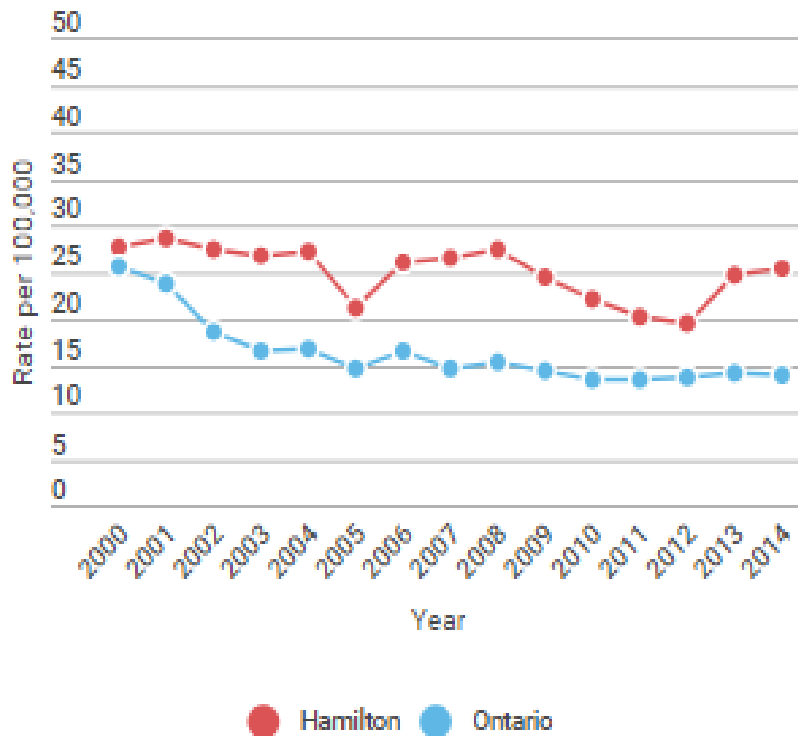


Public Health Ontario Snapshots, Canadian Community Health Survey (CCHS) 2003 to 2013-14, Statistics Canada, Ontario Share File, Distributed by Ontario MOHLTC

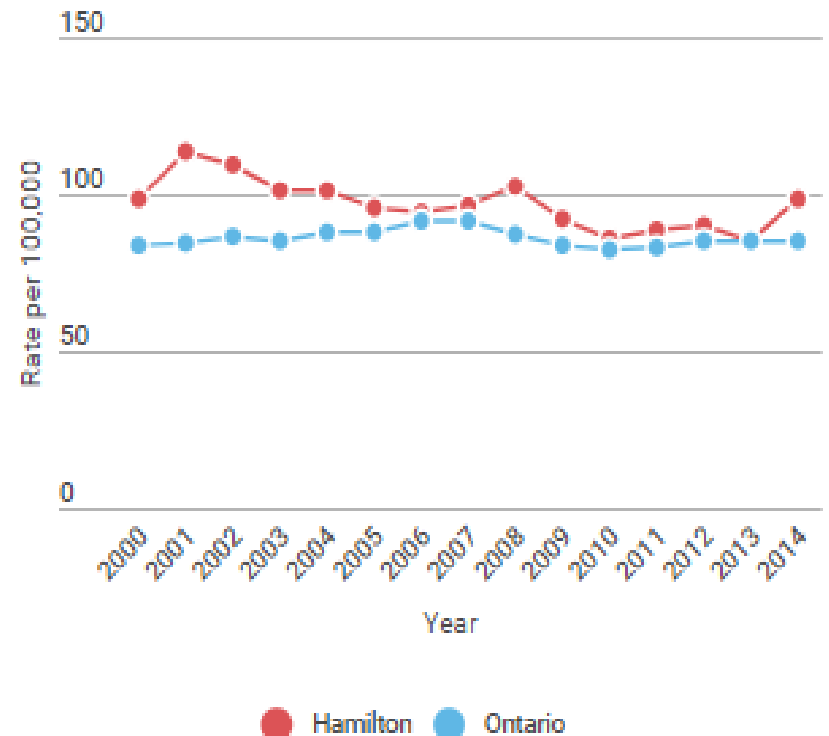


# Healthy Weights

Age standardized **hospitalization** rate (per 100,000 population) for hypertensive diseases, City of Hamilton and Ontario, 2000-2011

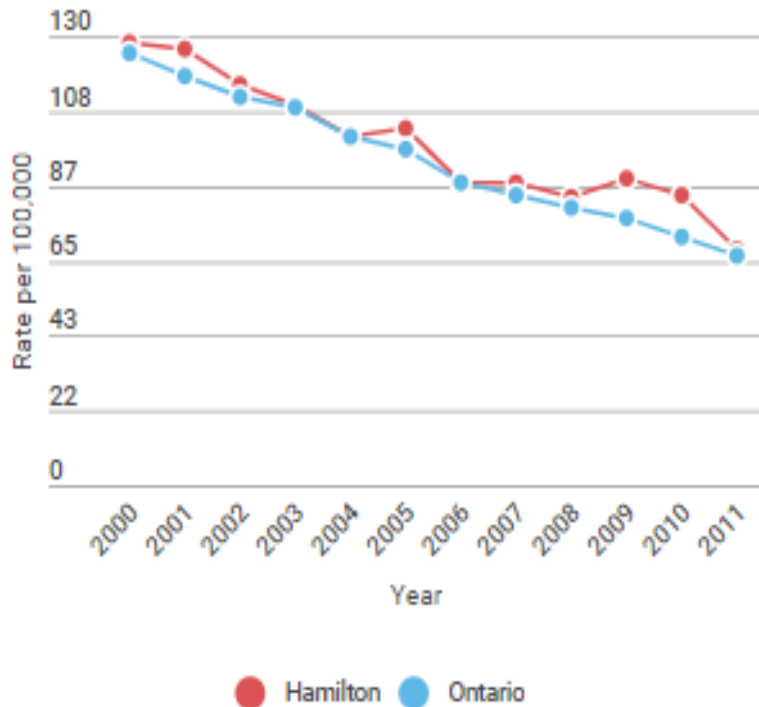


Age standardized **hospitalization** rate (per 100,000 population) for diabetes, City of Hamilton and Ontario, 2000-2011

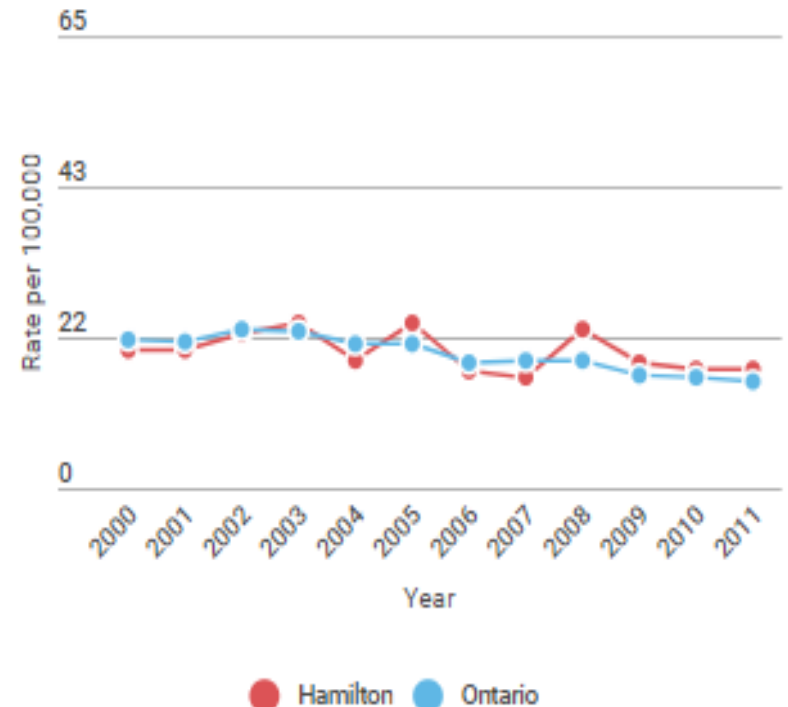


# Healthy Weights

Age standardized mortality rate (per 100,000 population) for ischemic heart diseases, City of Hamilton and Ontario\*, 2000-2011



Age standardized mortality rate (per 100,000 population) for diabetes, City of Hamilton and Ontario\*, 2000-2011



# Healthy Weights

## Strategic & System Initiatives

- Implementation of Hamilton's Food Strategy
- Advocacy for activity friendly communities through Planning Policy & Zoning By-Law Reform, Community Planning and Transportation Planning
- Active & Sustainable School Transportation

## Promotion, Awareness, Education & Knowledge Translation

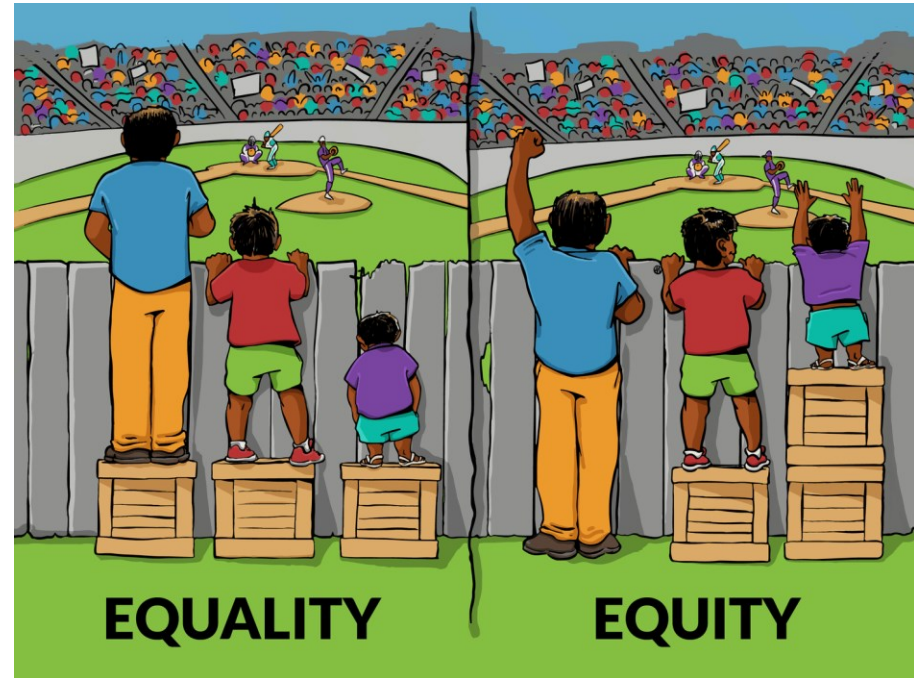
- Deliver Community Food Advisor Program developing food skills in Hamilton
- Initiatives to improve food literacy
- Health promotion actions to increase physical activity and reduce sedentary behaviour

## Monitoring & Surveillance

- Monitor overweight and obesity trends over time
- Determine priority populations to target interventions

# What is Health Equity?

- Health is influenced by a broad range of determinants, many of them are social determinants which are factors beyond our biology, behaviours, and lifestyle choices.
- **Health equity** is when all people can attain their full health potential because they are not disadvantaged by social determinants of health.



## Map: Material deprivation in Hamilton

Material deprivation is the inability to afford basic necessities; it is essentially the “purchasing power” of the population. Those with **high material deprivation (dark blue)** have the lowest purchasing power and may struggle to afford rent, utilities, food, education, childcare, transportation, recreation, and other costs.

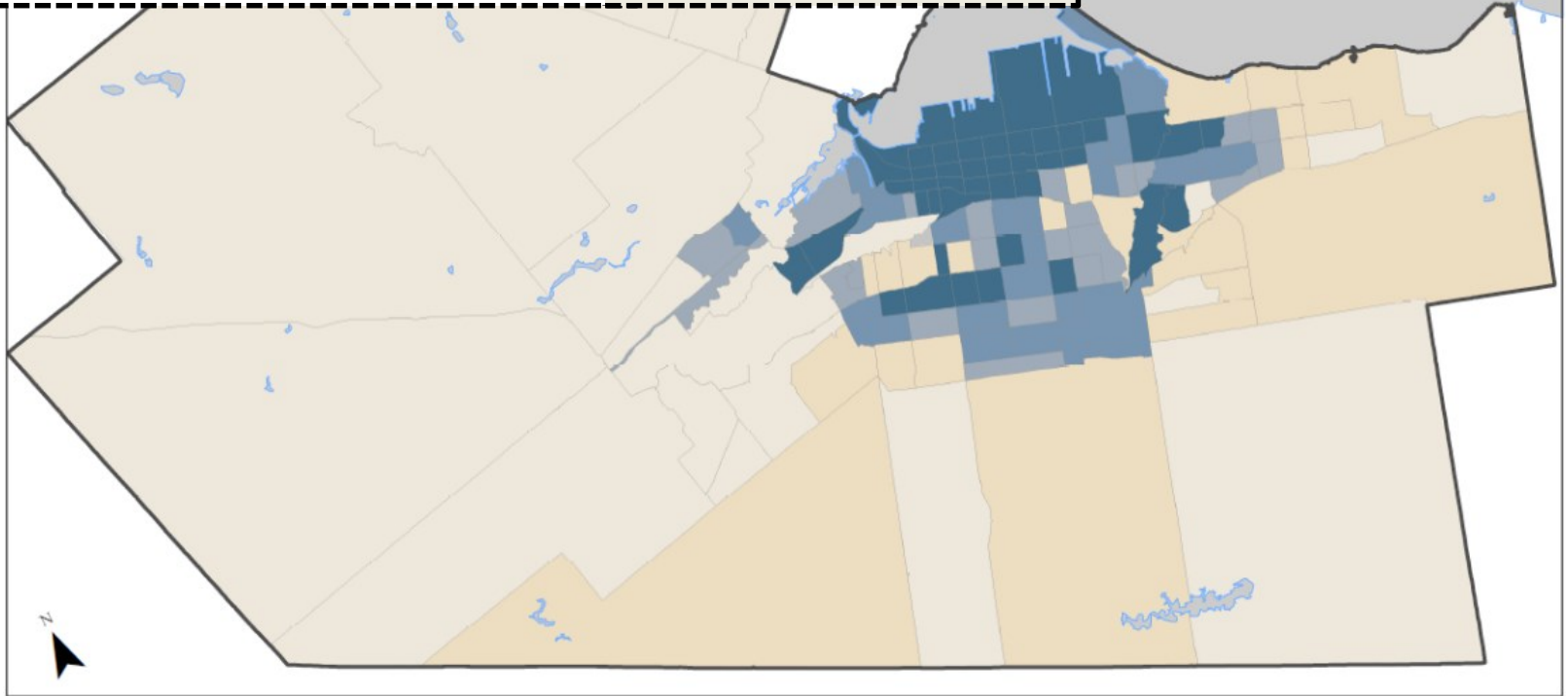
“Material Deprivation” is a combined measure of:

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- Low education
- Lone parents
- Homes needing major repairs

# Health Equity

NOTE: MATHESON, F.; ONTARIO AGENCY FOR HEALTH PROTECTION AND PROMOTION (PUBLIC HEALTH ONTARIO). 2011 ONTARIO MARGINALIZATION INDEX. TORONTO, ON: ST. MICHAEL'S HOSPITAL; 2017. JOINT PUBLICATION WITH PUBLIC HEALTH ONTARIO.

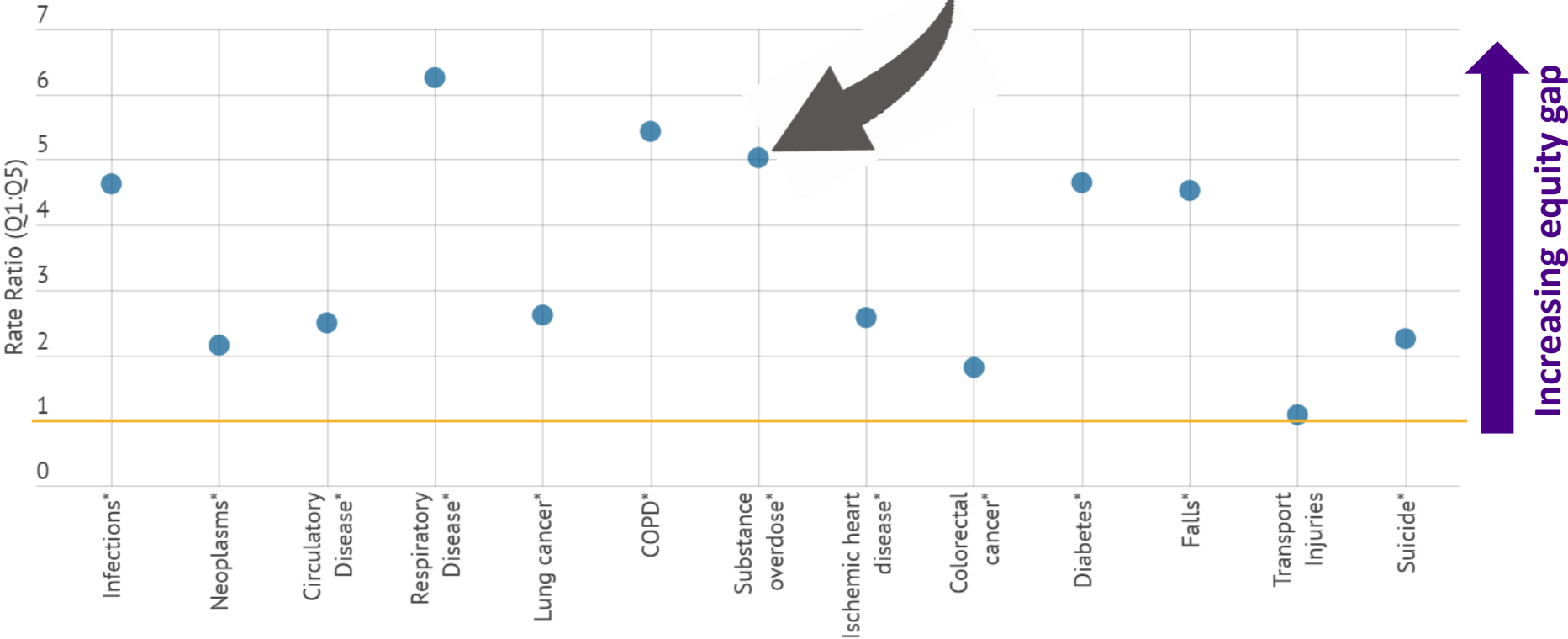
Lake Ontario



# Health Equity

Probability of avoidable death if you live in a neighbourhood with **high material deprivation**:

Hamiltonians living in the most materially deprived areas are 5-times more likely to die from a substance overdose.



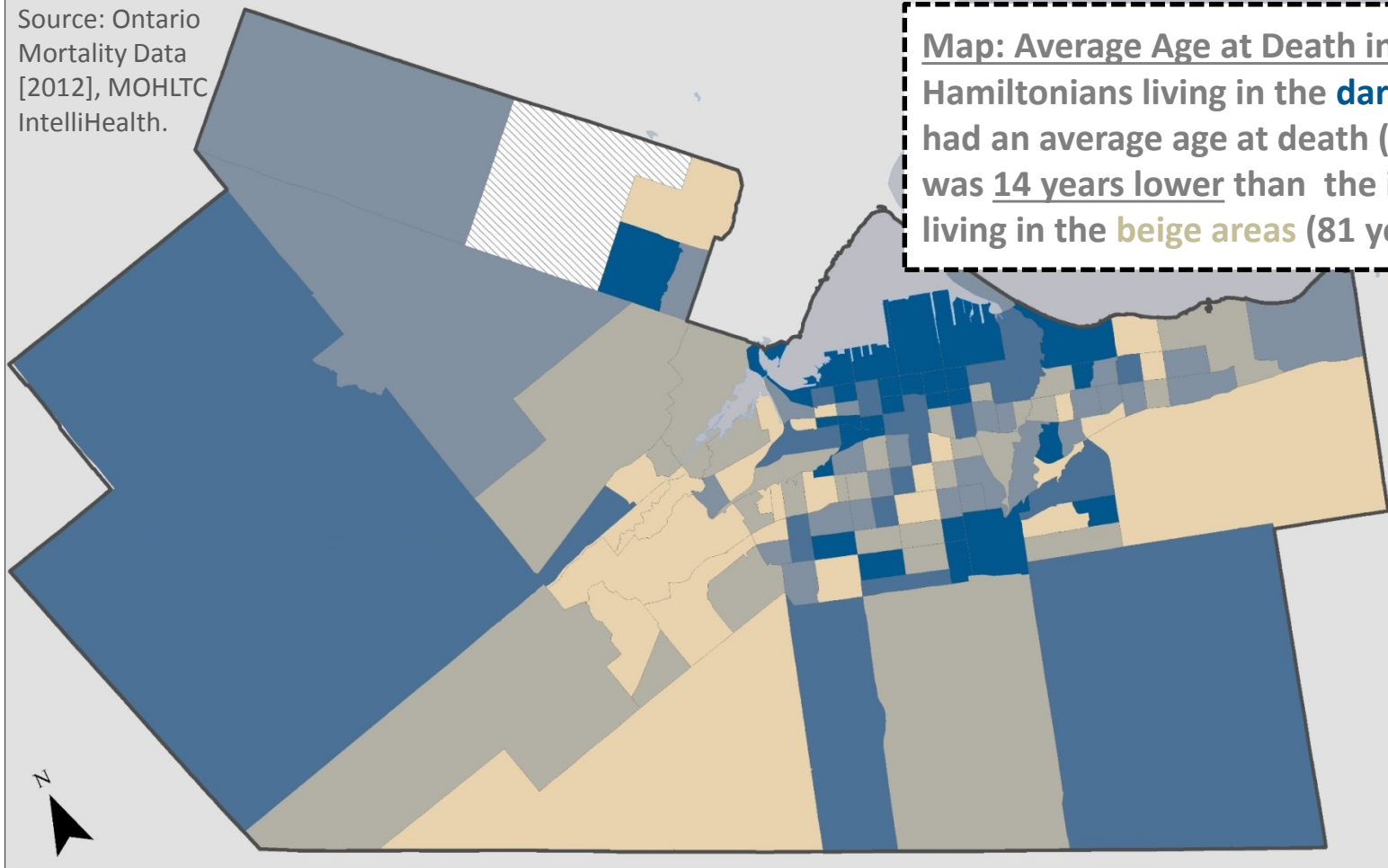
“Your postal code is a better predictor of your health than your genetic code” – Dr. Melody Goodman, NYU

# Health Equity

AVERAGE AGE OF DEATH



Source: Ontario Mortality Data [2012], MOHLTC IntelliHealth.



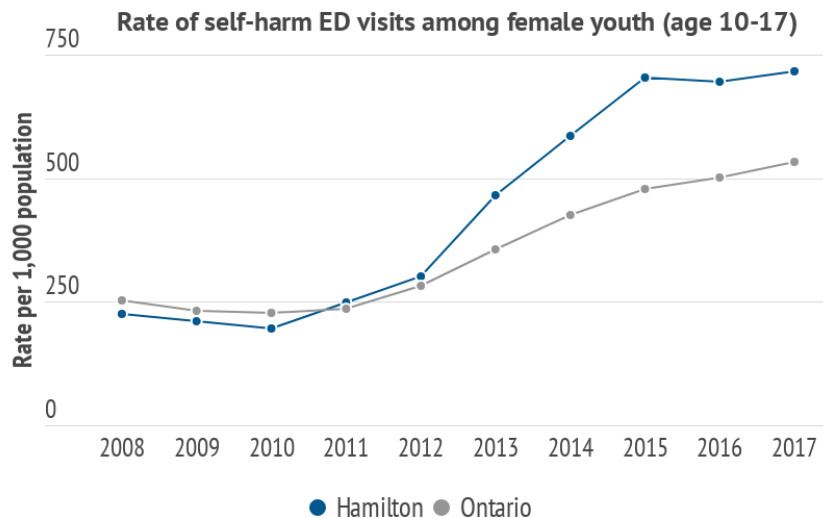
**Map: Average Age at Death in Hamilton**  
Hamiltonians living in the **dark blue areas** had an average age at death (67 years) that was 14 years lower than the individuals living in the **beige areas** (81 years).

# Health Equity Outbreak: Self-Harm

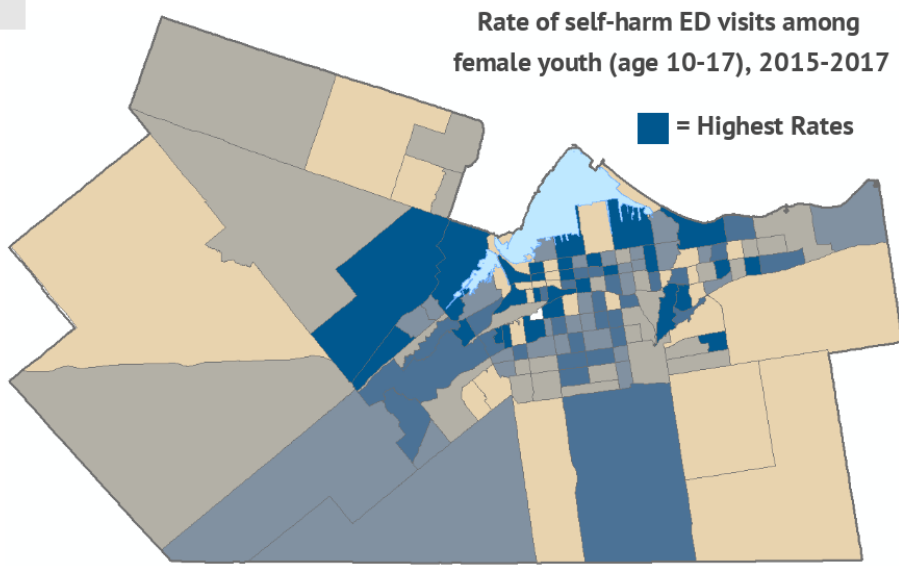
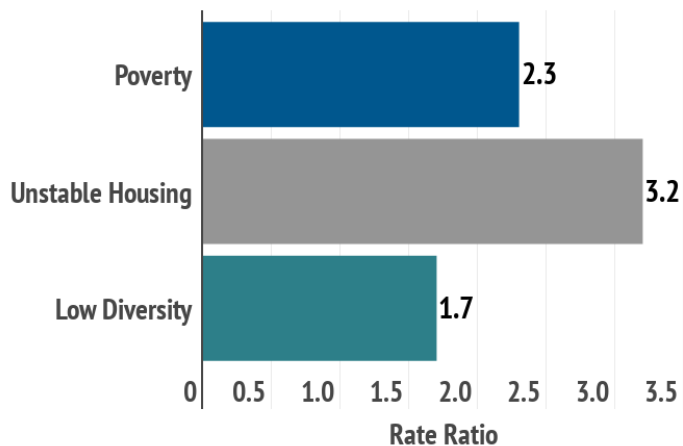
**What is self-harm?** When a person deliberately inflicts pain or damage to their own body by any method; it may coincide with an attempt to take one's own life.

## Who is impacted by self-harm in Hamilton?

- Females aged 10-17 have the highest rates of self-harm and this rate has tripled over the past 10 years.
- 70% of female youth use drugs to self-harm and 20% use sharp objects to self-harm.
- Self-harm is more common among female youth from areas with poverty, unstable housing, and low diversity.
- Rates of self-harm are highest in lower Hamilton.



Which social determinants increase your risk of self-harming?



Source: NACRS [2017], MOHLTC IntelliHealth.



## Strategic & System Initiatives

- Collaboration with systems partners – Local Health Integration Network, school boards, hospitals, academic institutions – on shared priorities
- Engagement in Urban Indigenous Strategy

## Monitoring and Surveillance

- Health Check
- Ward Profiles
- Determine priority populations within the City of Hamilton and for each public health program to target interventions

# Annual Service Plan & Budget

<b>Program Standards</b>	Chronic Disease Prevention and Well-Being			
	Food Safety			
	Healthy Environments			
	Healthy Growth and Development			
	Immunization			
	Infectious & Communicable Diseases Prevention and Control			
	Safe Water			
	School Health – Oral health; Vision; Immunization; Other			
	Substance Use and Injury Prevention			
<b>Foundational Standards</b>	<b>Population Health Assessment</b>	<b>Effective Public Health Practice</b>	<b>Health Equity</b>	<b>Emergency Management</b>

# Annual Service Plan & Budget

- All Boards of Health must approve and submit to the Ministry each year an Annual Service Plan and Budget
- Annual Service Plan and Budget includes:
  - Population health data
  - Detailed program plans
  - Budgeted expenditures
  - Requests for additional base and one-time funding
- Goals:
  - Clear priorities based on population health data and local need
  - Consistency of core services across the Province
  - Tailoring of health promotion programs to local circumstances

# Future Expectations

- Submit 2019 Annual Service Plan and Budget to the Ministry  
March 1, 2019
- Will have mature planning state this year for 2020 plan
- Board of Health submissions on performance and compliance with Standards, format being finalized by Province

Thank you