

# Healthy Diet & Sustainable Economy

Plant-based Food System by Shailly Prajapati





# My ask to the City of Brampton:

Take a stand and shift 50% of animal-based food purchases to plant-based purchases by the end of this year.







# Cancer, Heart Disease and Diabetes

- Eating red and processed meat has been linked to cancer. International Agency for Research on Cancer, WHO, and World Cancer Research Fund
- Plant-Based Diets Are Associated With a Lower Risk of Incident Cardiovascular Disease, Cardiovascular Disease Mortality, and All-Cause Mortality in a General Population of Middle-Aged Adults - Journal of the American Heart Association
- "One in 10 Peel adults has diabetes. By 2025, that number is likely to be one in six." University of Toronto
- "A vegetarian diet characterized by whole plant foods is most beneficial for diabetes prevention and management." - the National Library of Medicine

### Sources:

WHO report says eating processed meat is carcinogenic: Understanding the findings | The Nutrition Source | Harvard T.H. Chan School of Public Health

 $\frac{\text{https://www.utoronto.ca/news/whats-behind-peels-high-diabetes-rate-urban-planning-and-ethnic-backgrounds\#:} \sim :text=One\%20in\%2010\%20Peel\%20adults.Medical\%20Officer\%20of\%20Health\%20Dr.}$ 

https://www.wcrf.org/diet-activity-and-cancer/risk-factors/

https://www.ahajournals.org/doi/10.1161/JAHA.119.012865

Vegetarian Diets and the Risk of Diabetes - PMC (nih.gov)

A plant-based diet for the prevention and treatment of type 2 diabetes - PMC (nih.gov)

# Pandemics / Zoonotic Diseases

- The World Health Organization and The Centers for Disease Control say that 3 out of 4 diseases are zoonotic / come to us from other animals.
- The occurrence of cross-species viral epidemics can be substantially reduced by shifting to a plant-based diet.
- We can expect far more serious epidemics and pandemics in the near future.
- No known epidemic has resulted from the transmission of a plant virus to an animal.

### Sources

https://www,chathamhouse.org/2022/02/next-pandemic-when-could-it-be

https://www.independent.co.uk/climate-change/news/meat-coronavirus-pandemic-science-animals-b1794996.html

The Causal Relationship between Eating Animals and Viral Epidemics - FullText - Microbial Physiology 2020, Vol. 30, No. 1-6.

# **Antibiotic / Antimicrobial Resistance**

- The World Health Organization (WHO) recognises the use of antibiotics in the livestock sector as one of the primary causes of antimicrobial resistance.
- Antimicrobial resistance (AMR), a declining effectiveness of medicines to treat bacterial infections, is identified by the WHO as one of the greatest threats to global health, development and food security.
- Pneumonia, tuberculosis, gonorrhoea, and salmonellosis are becoming harder to treat as the antibiotics used to treat them become less effective.
- Antibiotic resistance leads to longer hospital stays, higher medical costs and increased mortality.

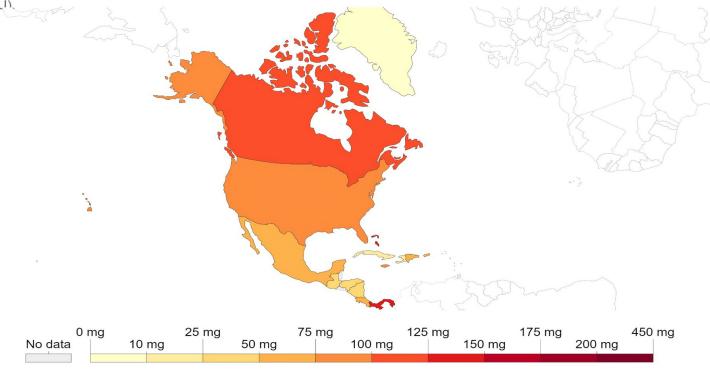
### Sources:

How do we reduce antibiotic resistance from livestock? - Our World in Data <a href="https://www.who.int/en/news-room/fact-sheets/detail/antibiotic-resistance">https://www.who.int/en/news-room/fact-sheets/detail/antibiotic-resistance</a>

### Antibiotic use in livestock, 2016



Antibiotics are used in livestock for animal health and productivity, but also pose a risk for antibiotic resistance in both humans and livestock. Data is measured as the milligrams of total antibiotic use per kilogram of meat production. This is corrected for differences in livestock numbers and types, normalising to a population-corrected unit (PCLI).



Source: European Medicines Agency, European Surveillance of Veterinary Antimicrobial Consumption (2017) & Van Boeckel et al. (2015) OurWorldInData.org/antibiotic-resistance-from-livestock • CC BY

Eat-Lancet
Planetary Health
Diet
&
Canada's Food
Guide

Recommend increasing Plant-based foods for health and planet

Source: Summary of Canada's Food Guide (concordia.ca)

The Planetary Health Diet - EAT (eatforum.org)



# **Transitioning is Good Business**

- sales of plant-based groceries grew by more than 25% in 2021 in the USA & Canada
- plant-based foods are a \$600 million market in Canada (2020) and \$7 billion in the US (2021)
- young Canadians are choosing plant-based more often for the planet
- in 2021, the City of Vancouver approved a 20% shift from animal-based purchases to plant-based potential, with a potential savings of \$99,000 and 500 tonnes of CO2 equivalents

### Sources

SPINS 2021 Market Research

https://gfi.org/press/plant-based-food-retail-sales-grow-27-percent-to-reach-7-billion-in-2020/

Dalhousie University 2018: https://www.nationalobserver.com/2020/02/18/news/young-canadians-are-becoming-vegetarian-or-vegan-fight-climate-change

https://vancouverhumanesociety.bc.ca/wp-content/uploads/2020/05/VHSCostBenefitAnalysis Vancouver June22.pdf

# **Economic Impacts**

- Climate change will cost Canadian municipalities billions of dollars
- Cost of Illnesses: Meat and poultry products are vectors for 30.9% of all foodborne illnesses. This translates into 2.9 million annual illnesses, yielding economic costs of up to \$20.3 billion (US data).
- Food Security: Increased food supply with plant-based diets: Plant-based replacements for each of the major animal categories in the United States (beef, pork, dairy, poultry, and eggs) can produce 2-fold to 20-fold more nutritionally similar food per unit cropland.

### Sources

https://ipolitics.ca/2020/02/27/climate-adaptation-expected-to-cost-canadian-municipalities-5-3-billion-annually-report/

Food Attribution and Economic Cost Estimates for Meat- and Poultry-Related Illnesses

The opportunity cost of animal based diets exceeds all food losses | PNA