



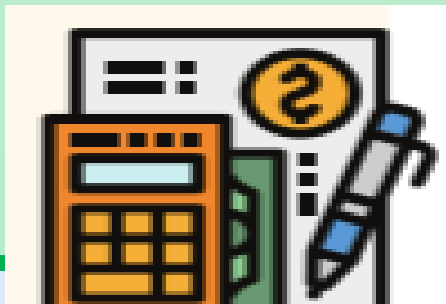
Introduction

- Cost of illness studies often focus on a single illness and cannot be compared to other studies or illnesses because of inconsistent methods.
- This produces a wide range of cost estimates rendering comparisons difficult across different regions, such as Asia Pacific and North America.



Objective

- The Economic Cost of Illness in Canada (ECIC) Program at the Public Health Agency of Canada (PHAC) aims to address these gaps by modernizing cost estimates across a comprehensive list of illnesses
- The Program uses standard and consistent methods to determine the economic impact of illnesses in Canada.



Methods

- The Program aims to estimate the costs of over 100 illnesses using consistent methods for all illnesses based on years 2018 (non-COVID19) and 2020 (COVID19 outset).
- A societal perspective is applied, which includes direct (health) and indirect (non-health) costs. Indirect costs apply the friction cost method, which considers the time to replace an absentee worker displaced from work due to an illness.
- Methods use a top down and prevalence-based approach using electronic medical records, administrative health databases and health surveys.

USE CASES

A MODERNIZED PROGRAM WILL INFORM, SUPPORT AND ENABLE:

INFORMED DECISION MAKING

ISSUE: Food-borne illness remains a significant public health concern in Canada that causes approximately four million illnesses annually. A conservative estimate of the associated annual economic cost of the illness to Canadians, the national economy and the health care system is \$2.8 billion.

COST-BENEFIT ANALYSIS: The Canadian Food Inspection Agency estimated the costs of the proposed regulations to help address this issue at approximately \$127.6 million annually.



EFFECTIVE POLICY AND PLANNING

SCENARIO – An influenza outbreak creates the need to determine if measures need to be taken. ECIC can be used to estimate the economic costs of the current outbreak compared to an average year, which can help determine the magnitude of measures and potential funding required.



ENGAGEMENT OF EXTERNAL STAKEHOLDERS

SCENARIO – Public health officials from various organizations can use ECIC results to inform discussions on the alignment of priorities and activities (e.g. top public health issues based on economic impact/costs).



PUBLIC HEALTH SOCIO-ECONOMIC RESEARCH AND KNOWLEDGE MOBILIZATION

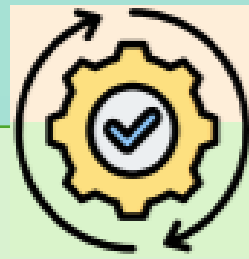
- Estimate potential reductions in costs when best practices are followed (e.g. Canadian Journal of Public Health - *Variation across Canada in the economic burden attributable to excess weight, tobacco smoking & physical inactivity*)
- Forecast of future costs based on changing demographics (e.g. aging population, immigration trends, etc.)
- Cost analysis on public health action versus inaction
- Economic evaluation for comparing interventions/programs in terms of costs and benefits



RESULTS: Cost estimates of over 100 illnesses across most cost components (e.g. hospital and physician costs) broken down by age, sex, and province will be disseminated in an online user interface. This interface will allow users to create customized output tables to select various outputs such as the illness(es), cost component, and demography plus analytical year. Reports for each cost component outlining the methods and high-level results will be available along with innovative and interactive visual tools.

CONCLUSIONS: The Public Health Agency of Canada’s Economic Cost of Illness Program provides valuable economic evidence for policy development. Applying consistent methods can enable comparability of cost estimates in regional settings or across different regions. If these same methods are consistently applied across different regions including Asia Pacific, it can enable inter comparisons across disparate illness and regions.

GUIDING PRINCIPLES FOR ECONOMIC COST OF ILLNESS PROGRAM MODERNIZATION



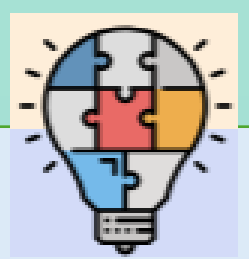
COMPREHENSIVE AND PRAGMATIC

Our objective is to have a robust and credible analysis that can be used as evidence to inform decision making as well as future research/analysis. We will use a pragmatic approach to address any analytical/data challenges.



PUBLIC HEALTH IS INCLUSIVE

PHAC will modernize the analysis by seeking to include data and analysis covering social, economic, and demographic factors known to be important to health equity. When this is not possible, we will identify and assess the data gaps and develop strategies to address them in future.



BUILD FOR TODAY AND TOMORROW

Leveraging databases, we developed a reproducible methodological approach and data acquisition strategy. The goal is to use a consistent approach for future updates that enable trend analysis.

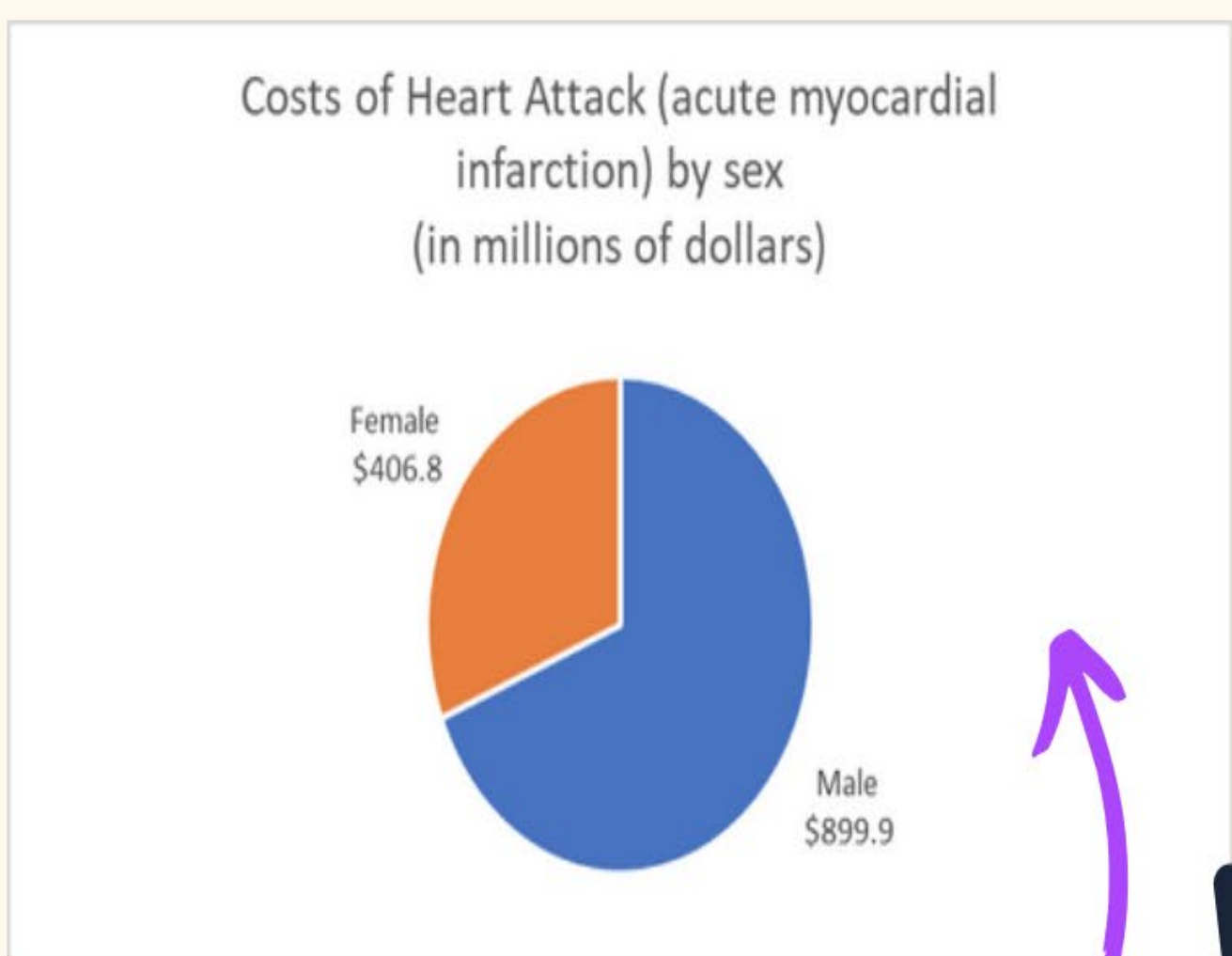
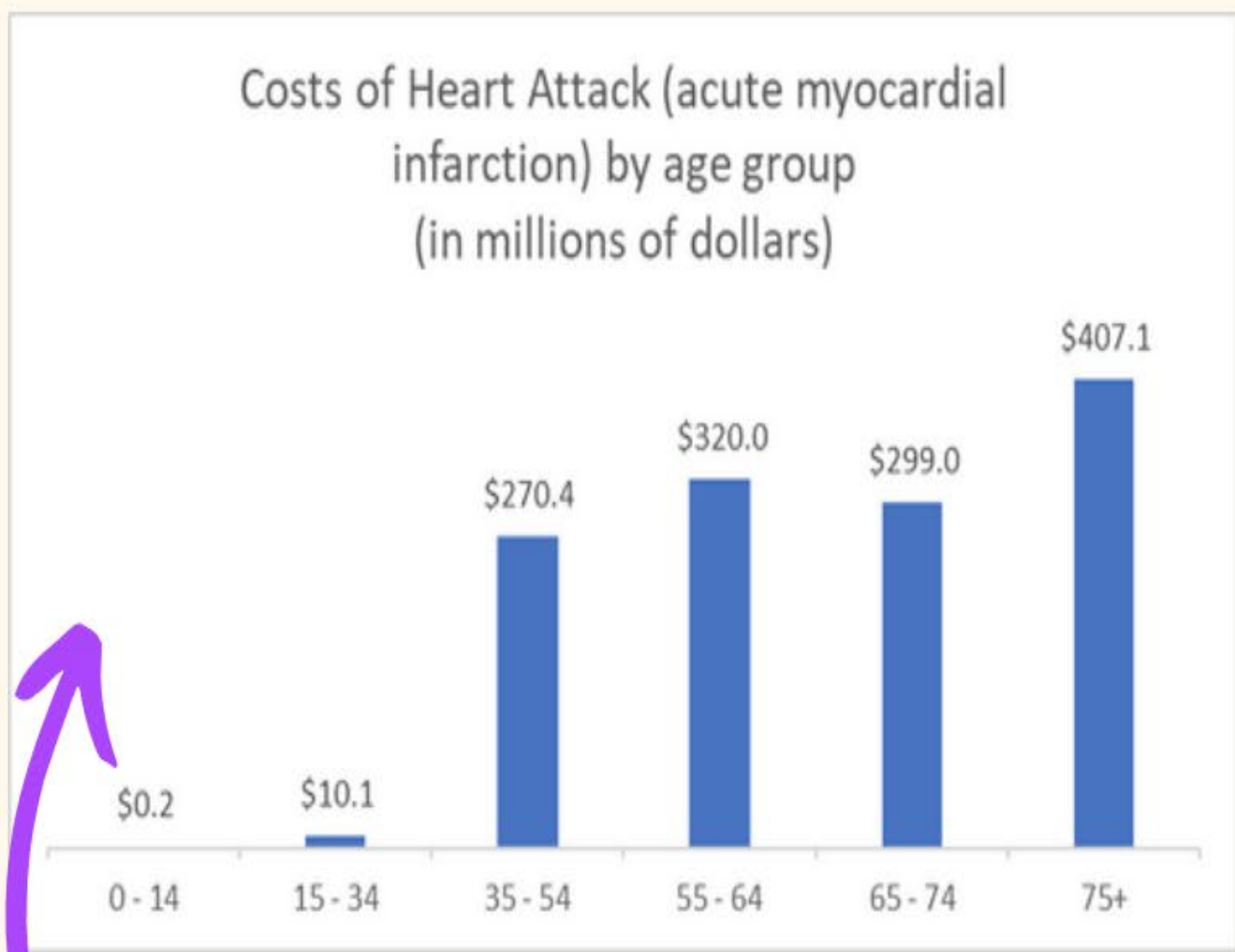
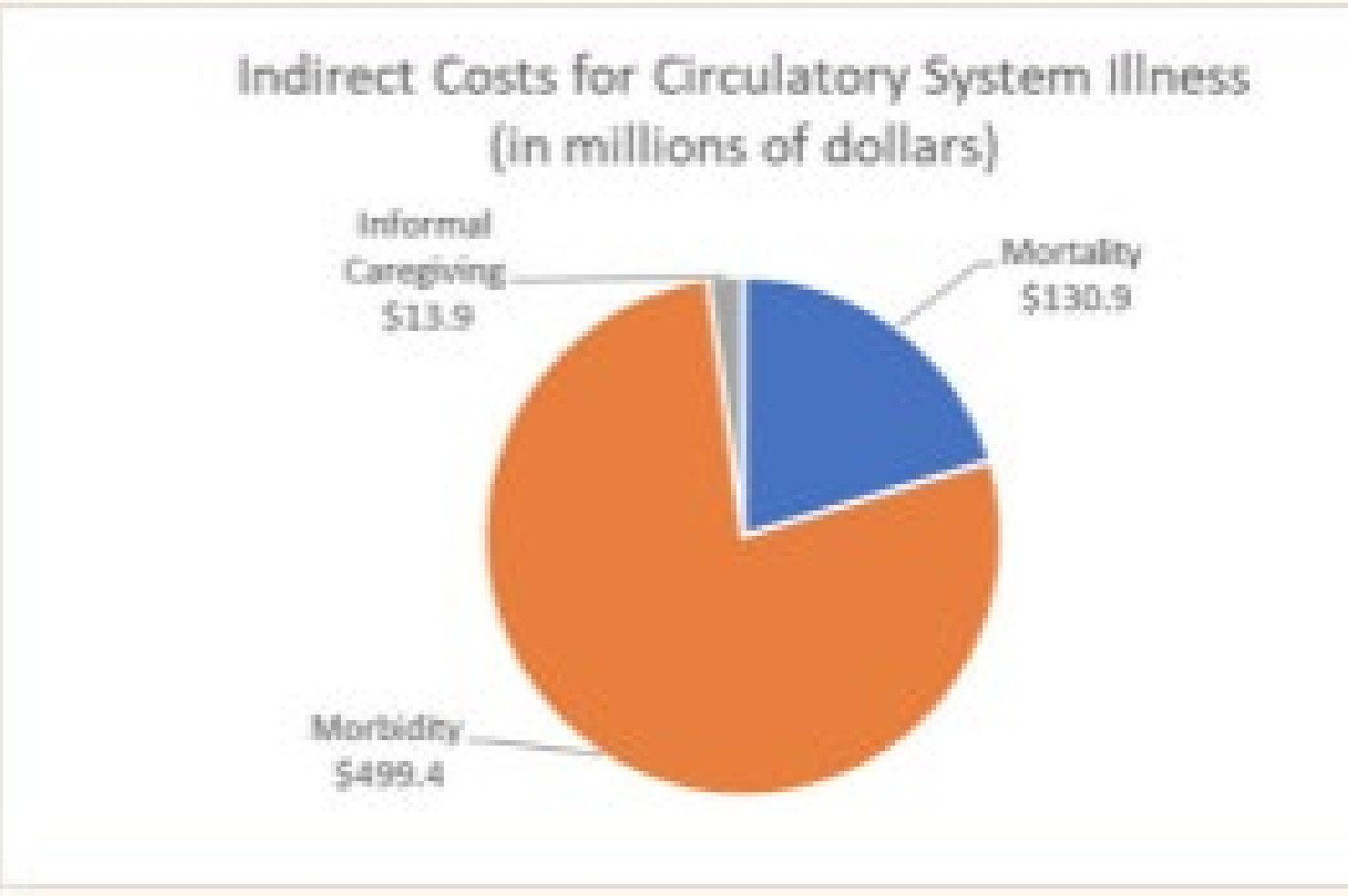
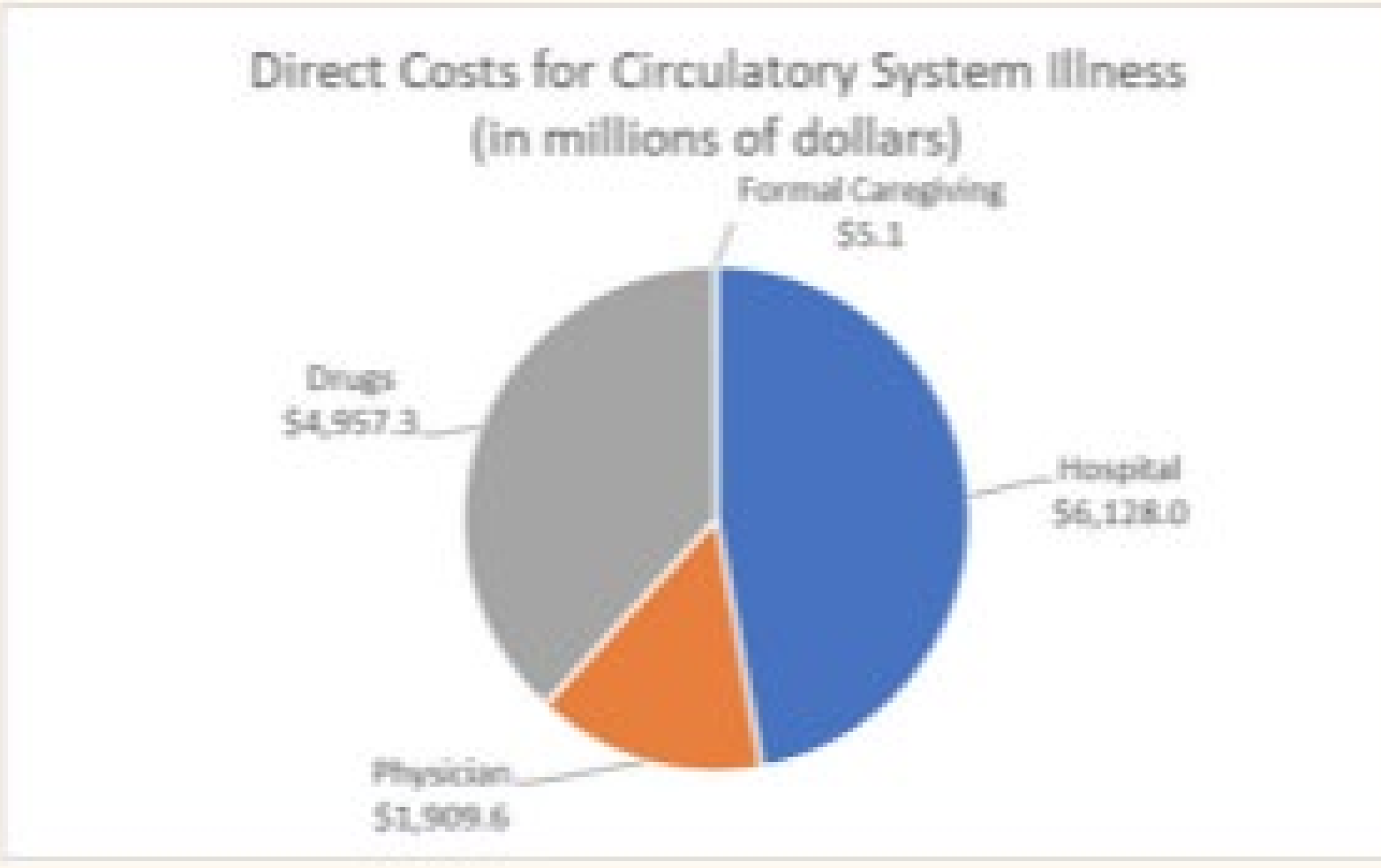
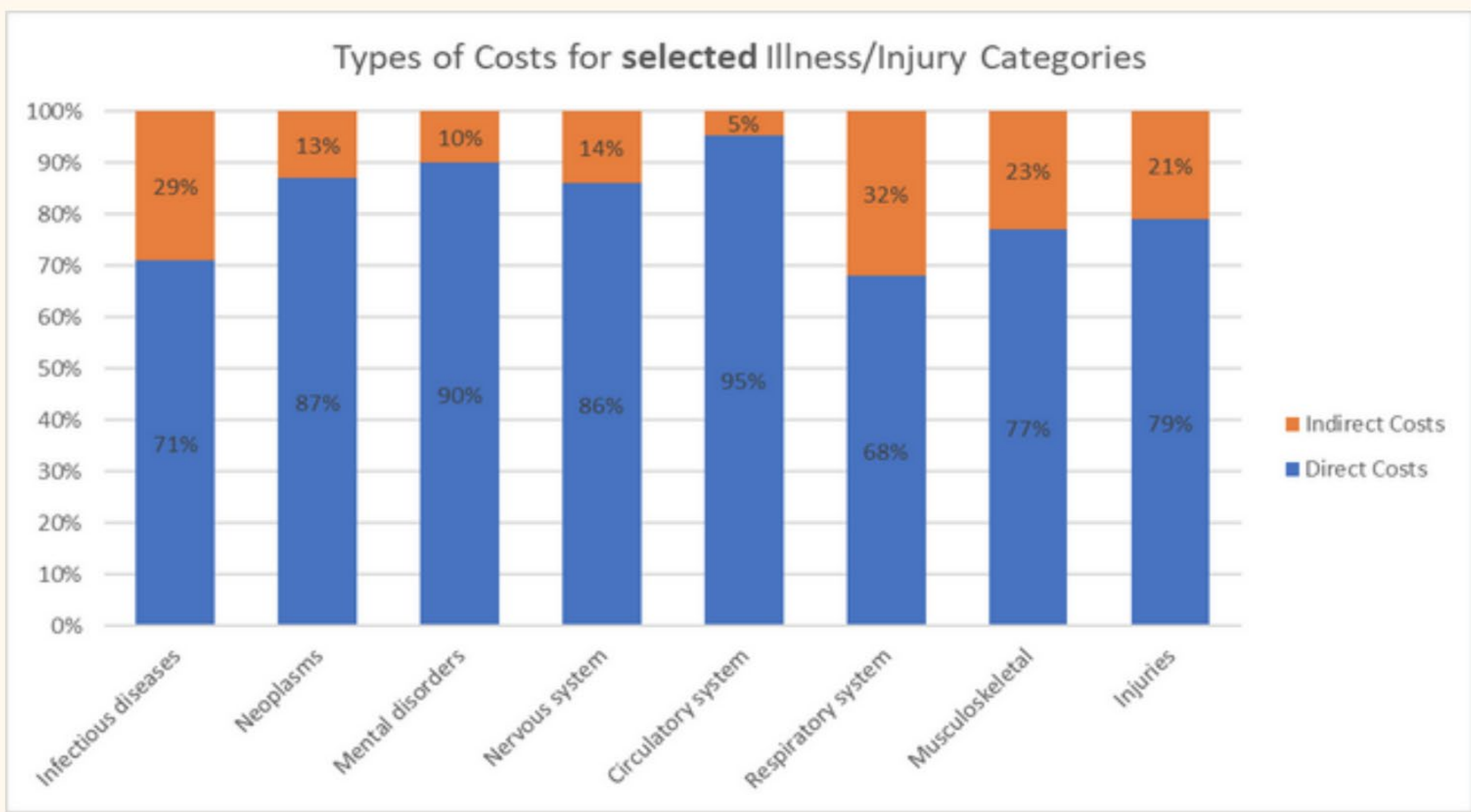


ENGAGEMENT IS KEY

PHAC engages early and often with subject matter experts within and outside of PHAC seeking their advice and recommendations throughout the modernization/updates process. Establishment of an Expert Advisory Body with regular meetings.

SAMPLE SNAPSHOT OF INSIGHTS

NOT ACTUAL RESULTS



Additionally, there are also opportunities to further explore these costs by factors known to be important to health equity (e.g. age group, sex, etc.).

