ENHANCED GRADUATE TRAINING IN HEALTH DATA VISUALIZATION AND ANALYTICS

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INTRODUCTION

The Visual and Automated Disease Analytics (VADA) Program is a graduate training program jointly offered at two Canadian universities since 2017 and supported by six years of national funding. This poster will describe the objectives, structure, and outcomes of the VADA Program. Key findings from bi-annual program evaluations will explore the implications of the VADA Program for health data science training for graduate students.

OBJECTIVES

VADA Program objectives are to: (1) advance student technical skills in the development and integration of interactive data visualization, visual analytics, and automated approaches for data mining, mathematical and statistical modeling, and predictive analytics; (2) improve student knowledge of applied problems relevant to the detection, prevention and management of infectious and chronic diseases; and (3) develop student professional skills in communication and relationships, entrepreneurism, responsible conduct of research, and project management.

STRUCTURE

In addition to completing their respective graduate programs, VADA program students complete a credit course in foundational skills in data visualization and analytics. An internship with a choice of industry, government, or academic partners, and a week-long summer school are also required.

OUTCOMES

More than 70 Masters and PhD students have completed the program to date. Program participants have: (1) assumed technical and decision-making roles in provincial and national ministries of health, in areas such as system performance, quality improvement, and disease surveillance; (2) been hired by private sector companies or established their own companies that focus on the development of health-related data collection, management, mining and monitoring tools; and (3) pursued academic careers in established departments as well as in emerging interdisciplinary departments and schools in data science and health information science. Student and faculty evaluations have emphasized the benefits and challenges of interdisciplinary research and the relevance of trainee skill development to current employment opportunities.