Vithusha Ravirajan

18 Telfer Gardens, Toronto ON, M1B 6C2 647-971-2428 vithusha.ravirajan@gmail.com

SKILLS PROFILE

- **Computer Proficiency:** Highly developed computer technical skills with proficiency in database management and programming in statistical analytics software
- Software and Programming: MS Office, SAS, Stata, R and Python
- Statistics/Data Analysis: 5+ years of strong quantitative and qualitative experience in data manipulation, collection, reporting and analysis; experience in protocol development and tool design for data management; data quality troubleshooting and problem resolution with complex datasets
- **Epidemiology:** Trained public health professional with experience in communicable disease program areas
- Languages: English(fluent), Tamil(fluent), French(elementary) and Korean(elementary)
- Core Competencies: Effective written and oral communication skills with the ability to prioritize and multitask; ability to work independently and collaborate in an interdisciplinary team; leadership skills with the ability to think critically and problem solve

EDUCATION

- Master of Public Health in Epidemiology
 University of Saskatchewan, Saskatoon SK, 2015
- Bachelor of Science (Honours), Biology and Psychology University of Toronto, Toronto ON, 2012

EXPERIENCE

Epidemiologist, Communicable Diseases/ Outbreak Response and Support/COVID Response IMS *Public Health Ontario*

Toronto ON, April 2021 – Present

- Contribute to COVID-19 surveillance and response by compiling epidemiological reports, analyzing and interpreting COVID-19 case and immunization data, SAS programing for daily, ad-hoc and specialized reporting, completing data requests that inform provincial decision making and collaborating with public health partners
- Developed a de-duplication algorithm and SAS coding to identify duplicate COVID-19 cases which was later adopted by local public health units and the analytics division of Ministry of Health (Ontario)
- Showcase flexibility, agility and crisis management skills during the pandemic by developing products and technical responses in record time and being available outside regular work hours to assist (on-call, weekend shifts and etc.)
- Analyze, interpret and report on sexually transmissible, blood-borne and respiratory diseases data
- Resident expert on SAS, Excel and other surveillance tools, who helps troubleshoot technical issues and train new hires and analysts on routine processes.
- Continue to provide consultation to the Enteric, Zoonotic, Vector-Borne Diseases Unit during Outbreaks

Toronto ON, December 2019 – April 2021

- Provided epidemiology expertise in the enteric disease program area including the following (but not limited to):
 - Performed and oversaw routine surveillance, developed indicators to detect enteric disease clusters and provided recommendations for action
 - Lead outbreak investigations (provide recommendations for action, data collection and analysis planning, oversee analyses and reporting, collaborate with stakeholders, and participate in outbreak coordination committees)
 - Drafted epidemiological summaries for outbreaks and epidemiological assessments for implicated food products
 - Built processes to address data gaps in iPHIS caused by delayed or absent data entry by health units who were by resource-burdened by the COVID-19 pandemic
 - o Performed exploratory data analyses and wrote complex SAS programs
- Designed, developed, implemented, and conducted complex epidemiological studies involving enteric foodborne diseases
- Provided epidemiological leadership and direction in preparation for all response to enteric, vector-borne and zoonotic outbreaks and disease surveillance and trained new hires and analysts
- Conducted department-wide workshops that taught tips and tricks for easy data manipulation and analyses in Excel

Health Analyst, Enteric, Zoonotic, Vector-Borne Diseases Unit *Public Health Ontario*

Toronto ON, July 2018 – December 2019

- Provided outbreak investigation support including, data management, analysis, drafting epidemiologic summaries and participation in outbreak coordination committee
- Analyzed, interpreted and reported health data using appropriate methods in response to inquiries from internal and external clients
- Wrote and executed computer programs (SAS, R and Excel Macros) for data extraction, data set creation and analysis
- Extracted data from iPHIS and Cognos ReportNet to fulfill routine surveillance tasks and data linkages
- Contributed to team projects including user guide development, literature review, data analysis, survey creation and dissemination

Epidemiologist, Analytic Services

Public Health Ontario

Toronto ON, October 2017 – July 2018

- Performed analyses on administrative data (Intellihealth Ontario) for Interactive Opioid Tool updates
- Using knowledge of infectious diseases and microbiology laboratory operations, provided support for PHOL-Analytic Services joint projects
- Acquired data from various sources, analyzed and compiled the results into reports using knowledge of SAS and analytic code writing and performed quality control checks for routine data updates and troubleshot data challenges
- Synthesized Age Standardization Guidelines document and environmental scan for Laboratory visualization project
- Completed ad-hoc projects as required and manage skills to prioritize and meet competing deadlines

Laboratory Surveillance Data Analyst, Laboratory Portfolio Public Health Ontario

Toronto ON, November 2016 – October 2017

- Successfully completed over 30 data projects, including large database management and data analysis using and statistical software packages and spreadsheets
- Used commercial and custom built LIMS software (Labware/Labyrinth) to understand laboratory data structure, interpret test result representation, and identify suitable data quality test cases
- Performed data quality troubleshooting and problem resolution including root cause analysis
- Using knowledge of microbiology laboratory operations and surveillance, provided support for outbreak-related data requests (including database development, data management, data quality and routine reporting)
- Completed data summaries, reports, and other documentation according to applicable standards, guidelines, policies and legislation
- Analyzed respiratory surveillance data and communicate findings through the PHO Laboratory-based Respiratory Pathogen Surveillance Report
- Managed the data uploads to the Ontario Universal Typing of Tuberculosis (OUT-TB) database