

CITYAGE

EVENT SUMMARY REPORT

THE DATA EFFECT VANCOUVER:

OUR HEALTH DATA OPPORTUNITY

JUNE 21, 2023

PRESENTED BY: **Google Cloud**

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EXECUTIVE SUMMARY

The Data Effect, CityAge's ongoing forum focusing on the importance of data to the future of healthcare, brought together leaders in British Columbia (BC) and Canada to look at the significant opportunities for leveraging health data and artificial intelligence (AI) to drive innovation, improve patient outcomes, and establish global leadership.

This report highlights the unique characteristics of BC and Canada's health data, the need for a learning health system, BC's potential as a research hub, and the implications of AI integration into the healthcare system. The bottom line: By effectively harnessing health data and AI technologies, BC and Canada can unlock their competitive edge, address healthcare challenges, and create a more equitable and efficient healthcare ecosystem. This report provides a road map for how to get there.

INTRODUCTION

BC and Canada's wealth of health data can serve as a valuable resource for research, collaboration, and data-driven decision-making. The diversity of patients, collaborative partnerships with organizations and universities, public accessibility of BC data, involvement of clinician scientists, and supportive government create a unique environment conducive to driving innovation and addressing complex healthcare issues. To fully leverage this competitive advantage, it's crucial to establish a learning health system that bridges siloed health data, promotes patient awareness and involvement, includes underrepresented communities, and fosters equity for all, including First Nations.



“If we want to be innovative, we need to take on more risk.”

SPEAKERS AT THE DATA EFFECT VANCOUVER:



CORRIE BARCLAY

Partner, BC Public Sector Lead,
PwC Canada



TIFFANY CHIU

VP, Communications, AbCellera



COURTNEY DEFRIEND

Director of Research and Knowledge
Exchange, First Nations Health Authority



DR. FEDERICA DI PALMA

Chief Scientific Officer and Vice President,
Research and Innovation, Genome BC



ALEXANDRA FLATT

Vice President, Pandemic Response and Chief
Data Governance and Analytics Officer at
Provincial Health Services Authority



DR. ALEXANDRA T. GREENHILL

CEO | Chief Medical Officer, Careteam Technologies



JACQUIE GRIFFITHS

President, Invest Vancouver



DR. ZSUZSANNA HOLLANDER

Director, Data Science, Genome BC



STEPHANIE HOOD

IT Innovation with the New St. Paul's Hospital
Project Team, Providence Health Care



WENDY HURLBURT

President & CEO, Life Sciences BC



RICHARD KATRUSIAK

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KENNDAL MCARDLE

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DR. ROBERT MCMASTER

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ALEX MENDELEV

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FAZIL MIHLAR

Deputy Minister, B.C Ministry of Jobs,
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ALLAN NOORDVYK

Executive Director of Health Informatics,
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DR. MATTHEW OBERHARDT

Lead Data Scientist for Healthcare, Qualtrics



STEVEN TAM

Chief Data Governance Officer,
Vancouver Coastal Health



SHIRLEY WONG

Executive Project Manager, Strategic Data
Initiatives, BC Ministry of Health



*“We are stewards, not owners.
Patients are owners.”*

LEVERAGING HEALTH DATA FOR IMPROVED HEALTH CARE:

BC and Canada’s health data possess unique qualities that are a competitive edge. The diverse patient population provides rich insights for research, enabling tailored interventions and personalized care, along with collaborative partnerships with organizations and universities that facilitate knowledge exchange and innovation. The public accessibility of BC’s health data also provides transparency and accountability, enabling widespread utilization and collaboration. The involvement of clinician scientists brings expertise to address unanswered questions and drive advancements in health care. To truly leverage BC and Canada’s health data, however, a learning health system is essential. This system should bridge the gaps between fragmented health data

sources, promote patient awareness and involvement, and prioritize patient-centered initiatives. Additionally, underrepresented communities must be included to ensure equitable representation and outcomes. A culture of reconciliation and an understanding of the challenges First Nations face in the health care system is also crucial to address historical disparities and promote equity in health care delivery. Failing to leverage health data in BC and Canada will discourage patient involvement, hinder innovation, and result in an inability to address evolving patient needs effectively. A proactive approach to data utilization is imperative to stay ahead of emerging health care challenges and provide optimal care.


BC AS A RESEARCH HUB:

BC has the potential to become a global leader in various research areas. Genomics research, combined with the accessibility of health data, presents one significant opportunity for breakthrough discoveries and personalized medicine. Addressing social determinants of health through interdisciplinary research and collaboration can lead to more comprehensive and targeted interventions. Focusing on prevention in health care rather than reactive measures can also significantly improve patient outcomes and reduce health care costs.

Learning from Indigenous approaches to health care can inform research methodologies and promote cultural inclusivity, ultimately enhancing health care outcomes for all population subgroups. Strengthening data governance and population health efforts will further support research endeavors, ensuring data security, privacy, and ethical use.

BC's success in leveraging health data can be observed in such examples as the progressive data access provided by BC platform services. Collaborative partnerships between research institutions, health care organizations, and government entities have facilitated data sharing, enabling transformative research and innovation.

Unrealized opportunities lie in further leveraging research expertise at the University of British Columbia (UBC), fostering collaboration with external jurisdictions that have achieved success in research, involving primary care in research initiatives, and addressing challenges related to data custodianship versus ownership. These barriers to success must be overcome in order to position BC as a thriving research hub and attract talent and investment in health care innovation.



“We need to take time and space for transformation. We can’t be too busy to innovate.”



INTEGRATION OF AI INTO HEALTH CARE:

Artificial intelligence (AI) has the potential to revolutionize the health care system by predicting treatment outcomes, analyzing large datasets for efficiency improvements, enhancing mental health support, and ensuring robust security and privacy measures. AI technologies also offer opportunities to optimize workflows, improve diagnostics, and personalize treatment plans, ultimately leading to improved patient care.

Current AI uses in health care include predictive analytics for call volumes and scheduling, as well as better integration of health data to enable data-driven decision-making. These early applications demonstrate the potential of AI to transform health care delivery and enhance efficiency.

AI can significantly improve primary care by automating administrative tasks, augmenting diagnosis, and supporting care coordination. Furthermore, AI-



“AI done badly is worse than no AI at all.”

powered mental health support tools can enhance early intervention, increase accessibility, and improve treatment outcomes for individuals with mental health conditions.

However, the integration of AI in health care also presents challenges. Concerns about bias, hallucinations and lack of transparency in AI algorithms must be addressed to ensure equitable and unbiased care. The potential for job displacement must be carefully managed through reskilling and upskilling initiatives. Ethical considerations regarding data privacy, consent, and responsible AI deployment require ongoing oversight and governance frameworks.

KEY ACTION ITEMS:

During The Data Effect Vancouver: Our Health Data Opportunity, CityAge went beyond traditional presentations and panels by hosting engaging breakout sessions, conducted under the Chatham House Rule, to foster in-depth conversations and generate a comprehensive list of priorities specifically tailored to Vancouver and British Columbia.

By encouraging group participation and networking, the breakout session ensured that all attendees had their voices heard and contributed to a collaborative discussion.

Through the breakout session, presentations, and panels, 15 action items were identified:

Establish a *learning* health system for BC and Canada.

Bridge fragmented health data sources for better utilization.

Integrate AI technologies to optimize workflows and improve diagnostics.

Ensure robust security, privacy, and ethical use of AI in health care.

Address concerns about potential bias, errors and lack of transparency in AI algorithms.

Manage job displacement through reskilling and upskilling initiatives.

Provide ongoing oversight and governance frameworks for responsible AI deployment.

Promote patient awareness and involvement in health care decisions.

Include underrepresented communities for equitable representation and outcomes.

Strengthen data governance frameworks and population health efforts.

Take a proactive approach to data utilization in health care.

Foster collaboration and partnerships in research initiatives.

Focus on prevention and personalized medicine in health care.

Learn from Indigenous approaches to health care for cultural inclusivity.

Address challenges related to data custodianship versus ownership.



“Don’t be afraid that AI is going to take your job. Be afraid that the person who knows how to use AI will.”

CONCLUSION:

Leveraging BC and Canada's health data, establishing BC as a research hub, and effectively integrating AI into the health care system requires collaborative efforts, data accessibility, patient involvement, and ethical oversight. However, by capitalizing on the unique characteristics of BC and Canada's health care ecosystem and its rich source of health care data, opportunities for innovation, improved patient outcomes, and global leadership can be realized. To unlock the full potential of health data and AI — which will shape a more equitable and efficient health care system for BC and Canada — we must take a proactive and strategic approach, and tap into the potential contained within the health care data sets across the provincial and national health care systems.

It is clear that there is a great desire to make progress on those objectives and that further dialogue is both necessary and desired by the key stakeholders. CityAge will continue to make this a key focus of our ongoing work under The Data Effect.

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