Canada Health Infoway

What Canadians Want: using data analytics to drive health system decisions

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About the presenters…

- Bobby's career includes 20 years of analytical, consulting and management experience across the acute care, government, and policy sectors of the health care system. His health care journey has had him work alongside clinician leaders, health care executives, Ministers and consultants to shape policy and deliver value to stakeholders.

- In his current role at Canada Health Infoway, Bobby combines his knowledge of health data with a deep understanding of the Canadian digital health landscape to innovate new ways of developing, measuring, and reporting performance and outcome indicators. By growing organizational data analytics capabilities, Bobby provides insights that stimulate adoption and demonstrate tangible benefits of investments in digital health.

- Bobby has a Bachelor in Business Administration from the Schulich School of Business, York University and a Master's Degree in Health Policy, Management, and Evaluation from the University of Toronto.

Bobby Gheorghiu, Director, Analytics

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About the presenters…

- Barry is a Data Science Analyst at Canada Health Infoway where he is responsible for developing the Infoway's self-service analytics website and conducting business intelligence and advanced analysis on research and operations data.

- Barry received his master's degree at the University of Toronto in data analytics and machine learning.

- His main areas of interest include utilizing power of artificial intelligence to provide advanced analytics and data-driven insights to make better business decisions and to derive out-of-box solutions to today's digital health problems across Canada.

Barry Xu, Analyst, Data Science

Canada Health Infoway

This is Infoway

- We're an independent organization

- We're not-for-profit

- We're funded by the federal government

Canada Health Infoway

Infoway's mandates to date

Building the Infrastructure — Foundational infrastructure for digital health: investments in six core components of an electronic health record (EHR)

Providing Digital Tools for Clinicians — Electronic medical records (EMRs), telehealth, public health surveillance solutions, PrescribeIT®
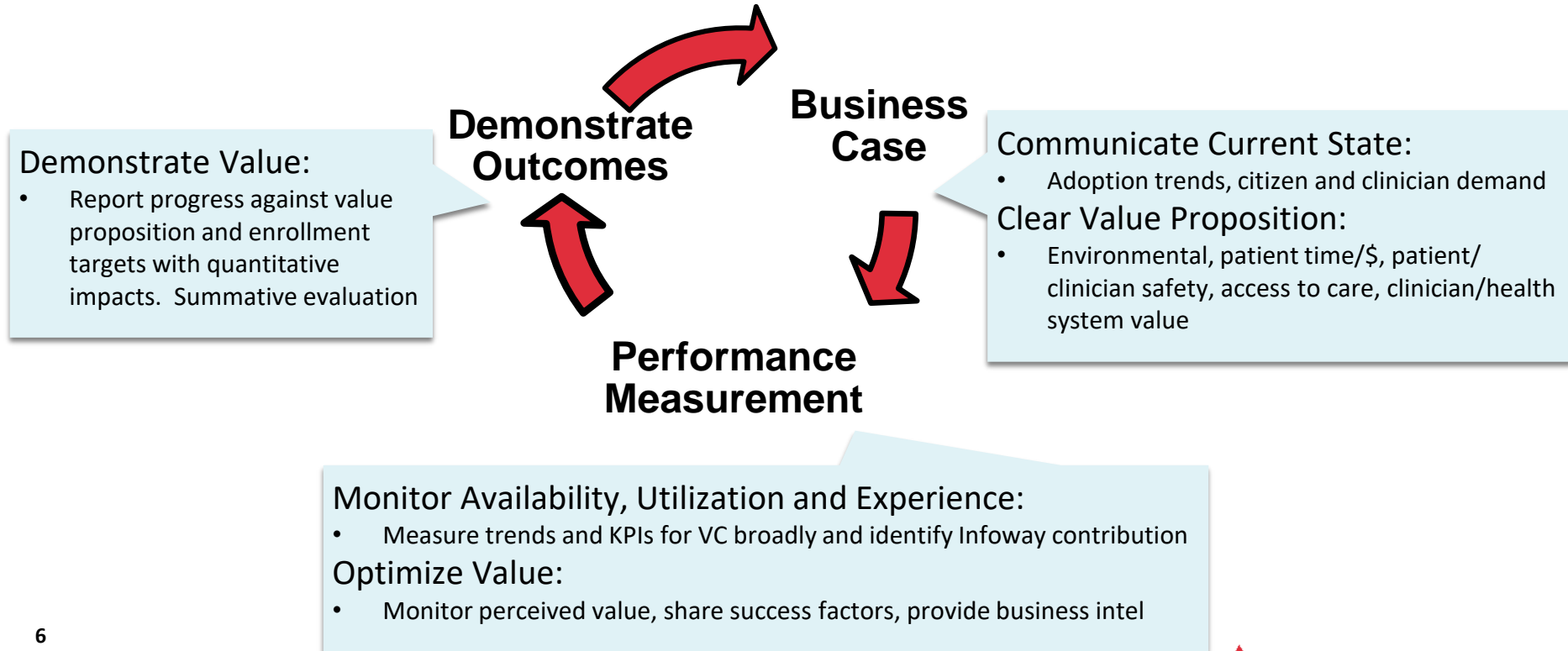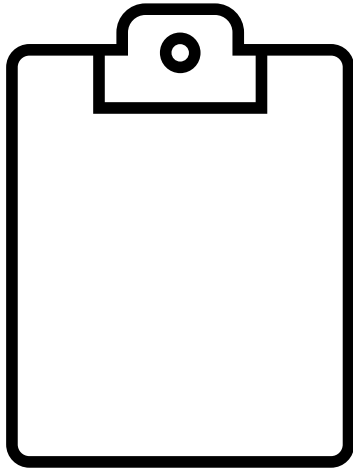
Driving Access for Canadians — Consumer-facing solutions to empower patients and increase access to care

2001   2003 2004   2007   2010   2012   2016   2017   2018   2019   2022

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Performance Analytics informs progress

Demonstrate Outcomes

Business Case

Performance Measurement

Demonstrate Value:
- Report progress against value proposition and enrollment targets with quantitative impacts. Summative evaluation

Communicate Current State:
- Adoption trends, citizen and clinician demand

Clear Value Proposition:
- Environmental, patient time/$, patient/clinician safety, access to care, clinician/health system value

Monitor Availability, Utilization and Experience:
- Measure trends and KPIs for VC broadly and identify Infoway contribution

Optimize Value:
- Monitor perceived value, share success factors, provide business intel

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From PowerPoint Slides to Advanced Visualizations

- For many years, Canada Health Infoway has conducted yearly surveys of Canadians for the purpose of gauging awareness, attitudes, use and adoption of digital health.

- Results and analyses have been shared via PowerPoint slides, with customization needed to address the individual needs of various internal and external audiences.

- As the interest and appetite for detailed results and custom queries has grown, we have looked for ways to continue to meet this demand in an efficient manner.

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Objectives

- Present data in interactive and visually engaging means

- Allow stakeholders to trend and filter data as needed

- Provide key reference data in easy to access and digestible formats

- Showcase research outputs and external collaborations

- Provide thought leadership in benefits modeling with interactive analytics tools

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Development Methodology

- <u>Conceptualization</u>: iterative process to consider user interface (UI) design and the structure of the website in order to serve current business objectives as well as be scalable for future growth. Concepts and mock-ups were needed to incorporate business branding and marketing and communication strategies.

- <u>Development</u>: data pre-processing on the survey data and visualizations; research on modern web development methods resulted in the use of Python Flask and Dash as the two main development frameworks with basic HTML, CSS, API interaction and responsive web design principles.

- <u>Deployment and Fine-tuning</u>: initially deployed internally to the company's development/testing server and shared with stakeholders across the organization to obtain feedback on both content and usability while making incremental improvements. Migration to external servers occurred after development of French-language site and revisions necessary to comply with Accessibility for Ontarians with Disabilities Act or AODA standards.

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Infoway Insights: A hub for digital health research

Easy access to data regarding the attitudes, behaviours and opinions of clinicians and the public about key topics in digital health:

- virtual care,

- e-prescribing and

- e-mental health

- and many others…

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Research Collaborations

https://insights.infoway-inforoute.ca/research

Collaborating with researchers across the country.

Infoway conducts research into the value and impacts of Canadian digital health implementations and digital health enablers that support the success of projects, new innovative technologies and health care priorities. Click on the interactive map to obtain more details on our collaborations with researchers across Canada.

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Infoway Insights: Key Statistics

- Since we launched the website last year, Infoway Insights has been accessed by **4,736 users across all provinces and territories in Canada and in 63 other countries**.

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https://insights.infoway-inforoute.ca

Follow **Performance Analytics** Ongoing Work

EXPLORE   **Our Digital Health Evidence and Analysis**

https://bit.ly/3jNSnw9

ACCESS   **Pan-Canadian Data on Insights**

insights.infoway-inforoute.ca/

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evaluation@infoway-inforoute.ca

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Thank you!

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