



Data – Insight – Action

Unlocking the power of data for a better B.C.

PSSDC - Charlottetown, PEI
October 5, 2017

B.C.'s Integrated Data Office

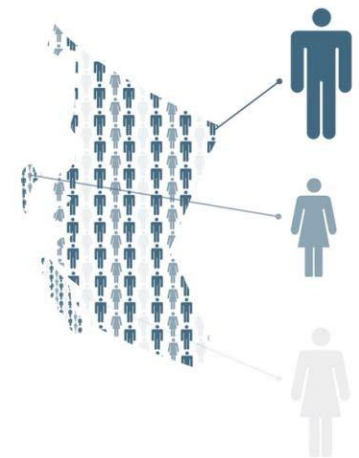


Our Vision

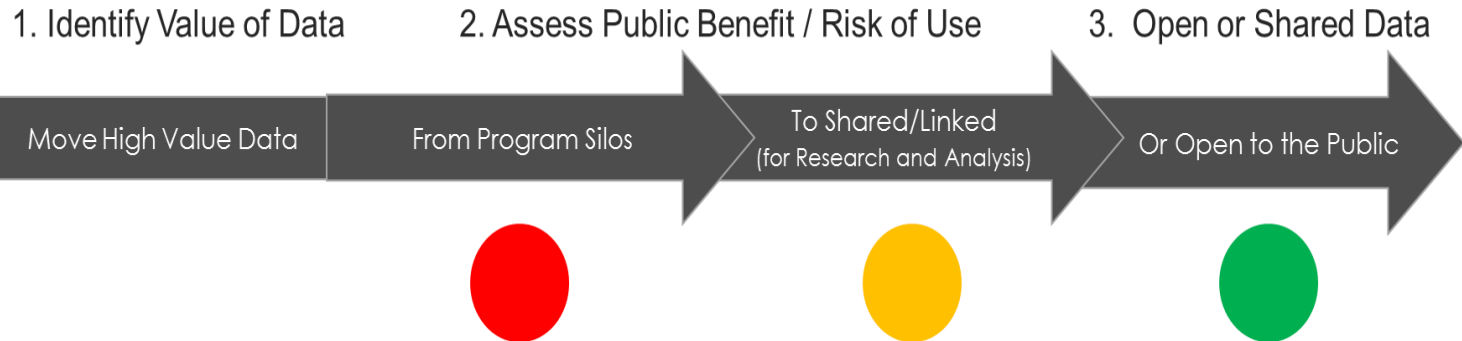
To unleash the power of data for a better B.C.

Areas of Responsibility

- Data access and use policies
- Single window service for access to BC's public sector data
- Corporate data science projects and capacity
- Stakeholder and public engagement
- Partnerships and data ventures



Policy Approach: Continuum of Protection

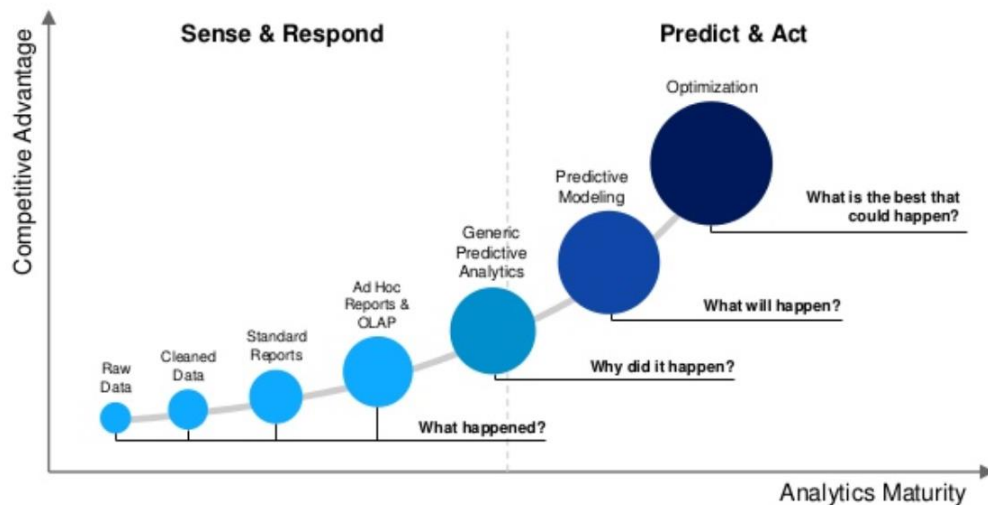


Value:	Program / Operational	Enterprise/Research	Public
Type:	Personal / Sensitive	De-identified	Non Personal or Anonymized
Protection: (Privacy/Security)	High	Medium	Low
Access:	Restricted (Staff, Need to Know)	Controlled (Terms and Conditions)	Open
Use:	Restricted (primary purpose, consent)	Permitted secondary uses (monitored)	Unrestricted (Re-use, commercialization)

Corporate Data Science Capacity



Methodologies



Infrastructure

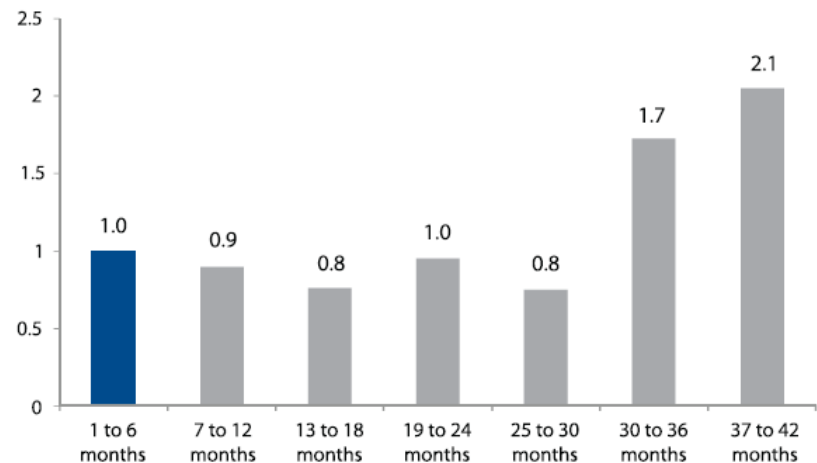
What's possible with de-identified data?

Link data from multiple sources to gain system-wide insights	✓
View longitudinal, life-course information	✓
Identify risk factors and protective factors	✓
Perform predictive risk modelling	✓
Evaluate effectiveness of particular interventions	✓
Identify characteristics of groups with positive and negative outcomes	✓
Tailor interventions to people based on characteristics they share with groups studied	✓
Follow individuals who are using services, i.e. case management	✗
Identify specific individuals who are at risk or would benefit from a specific intervention	✗
Identify specific individuals who are abusing systems and take enforcement action	✗

Predicting Risk of Long-Term Unemployment

- **Question:** Can we predict who will become long-term unemployed?
- **Key Findings:**
 - The model can predict with 77 per cent accuracy who will become long-term unemployed
 - Those that make it past seven months in a job much more likely to avoid becoming long-term unemployed
- **Implications:**
 - Allows for substantively earlier interventions with those at risk
 - Informs program design (e.g. expand job retention services to help clients get past 7 month mark)

Likelihood of Becoming Long-Term Unemployed by Length of Job Tenure
(Compared to those with job tenures of 1 to 6 months)



Workers in their job for 7-30 months prior to unemployment are less likely to be out of work long-term.

Corporate Data Science Projects



Completed Work

Predicting risk of long- term unemployment	<ul style="list-style-type: none">• Number of long-term unemployed doubled in ten years• Those that make it past 7 months in a job much more likely to avoid becoming long-term unemployed
Impact of Foreign Home Buyers Tax (BC Stats)	<ul style="list-style-type: none">• New tax temporarily decreased foreign buyer purchases in Metro; did not increase foreign buyer purchases in other regions (e.g. Victoria) or in commercial real estate
Effectiveness of Labour Market Programs	<ul style="list-style-type: none">• Programs generally effective for participants 18-50• Programs less effective for >50

Current Focus

Mental Health	<ul style="list-style-type: none">• Significant policy priority that touches on mandates and programming in multiple ministries and agencies
Housing Affordability	<ul style="list-style-type: none">• Significant policy priority that touches on mandates and programming in multiple ministries and agencies
Student Pathways Following K-12	<ul style="list-style-type: none">• Provide full picture of the pathways kids take following K-12 and the profiles of these kids earlier in the education system

Project Opportunities



Peer
Review

Mirror

Expand

Collaborate