The Value of Structured Data Capture to CCO
The Ontario Health Insurance Plan (OHIP) is government funded coverage provided to every Ontarian, and overseen by the Ministry of Health and Long-Term Care (MOHLTC).

Cancer Care Ontario (CCO) is the Ontario government’s principal cancer advisor agency.
How do we unlock this data potential?

**Synoptic Reporting**

~80% of health data is considered

“**Dark Data**”

- Siloed
- Captured and stored in different formats
- Narrative and not machine readable
- **Not standardized**
## What is Synoptic Reporting

<table>
<thead>
<tr>
<th>Type of Report</th>
<th>Description</th>
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<tbody>
<tr>
<td>Narrative</td>
<td>A report that has little to no fields separating content</td>
</tr>
<tr>
<td>Structured</td>
<td>A report that has content in defined fields and headings. The level of structure may vary from simple reports with headings, and more complex reports with checklists, or radio buttons</td>
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<tr>
<td>Synoptic</td>
<td>A report that has content in discrete fields like a structured report, but that is <strong>data mineable</strong> with coded concepts</td>
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CCO provides evidence-based knowledge and tools to help prevent cancer and deliver high-quality care, but we need more and better data.

Synoptic reporting – at CCO

Pathology
Electronic cancer checklists from the College of American Pathologists

PROs
Patient Reported Outcomes

Imaging
LDCT for lung cancer screening

Radiation Therapy
ALR Data – Radiation Planning/Treatment Activity
Cancer Care Continuum

Aim to improve interoperability across the continuum
Synoptic Reporting: more than filling out a template
Filling out the template enables quality improvement for the whole system:

**Self-evaluation**
- Key data elements can be easily extracted, enabling real-time self-evaluation of quality indicators

**Access to the data you need, when you need it**
- Synoptic can ensure that critical information is available to all clinicians in a patient’s circle of care, regardless of where and when the patient is seen

**Improve overall guideline concordance**
- Synoptic reporting can enable incorporation of evidence-based best practices into reporting to improve continuity of care

**Strengthen data quality for secondary use**
- Data from synoptic reporting can be used for outcomes analysis for diagnosis, treatment, system planning, quality improvement, system control and population-based research
In addition to direct care benefits, CCO is interested in synoptic reporting to improve internal processes.

For example: The Ontario Cancer Registry (OCR) captures population-level stage at diagnosis to inform planning and managing cancer services, as well as evaluating, measuring and reporting cancer treatment patterns and outcomes.

CCO analysts remotely access patient records one-by-one to manually input medical data and create the best stage.

Each analyst derives ~2800 of the ~63,000 "stageable" new incident cases annually (from ~75,000 cases total).

Only 79% of "stageable" cases are staged each year, with data being available 1 year after collection.

Increasing synoptic data coming to CCO will decrease the manual work efforts by Analysts, creating efficiencies in the OCR.
Potential Outcomes

- Integrated reporting - Rad/Path/Surgery reporting and communications

- Clinical decision support, conditional logic, pre and auto-population of reports from internal and external data sources

- “Unlock the Patient Clinical Content” for use by primary care, patients, public health, healthcare administrators and researchers

- Customized and contextualized reports for providers and patients, predictive analytics, and more!

Ritz, D. (2017, March). How can we leverage big data to improve population health in LMICs? Hamilton, ON, CAN.
Questions?

Contact information:
Alex Goel
Integrated Synoptic Reporting
Patient Centred Care
Cancer Care Ontario
email: alex.goel@cancercare.on.ca