

How CIHI's Data Supply Strategy will Maximize Your eHealth Investments

Acute and Ambulatory Care Information Services (AACIS)

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About CIHI

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential information on Canada's health systems and the health of Canadians.

About CIHI



We provide comparable and actionable data and information that are used to accelerate improvements in health care, health system performance and population health across Canada.

About CIHI



Our stakeholders use our broad range of health system databases, measurements and standards, together with our evidence-based reports and analyses, in their decision-making processes.

CIHI's strategic plan, 2016 to 2021

Vision

**Better data.
Better decisions.
Healthier Canadians.**

Mandate

Deliver comparable and actionable information to accelerate improvements in health care, health system performance and population health across the continuum of care

Strategic goals



Be a trusted source of standards and quality data



Expand analytical tools to support measurement of health systems



Produce actionable analysis and accelerate its adoption

Priority themes and populations

Themes

Patient experience
Quality and safety
Outcomes
Value for money



Health system performance

Populations

Seniors and aging
Mental health and addictions
First Nations, Inuit and Métis
Children and youth



Foundation



Our people



Stakeholder engagement and partnerships



Privacy and security



Information technology

Values

Respect • Integrity • Collaboration • Excellence • Innovation

CIHI's role in acute and ambulatory data

Data Collection

Create and maintain pan-Canadian databases; develop and promote data standards

Reporting

Produce relevant and actionable analyses

Access & Use

Provide timely data and information to support stakeholder decision-making

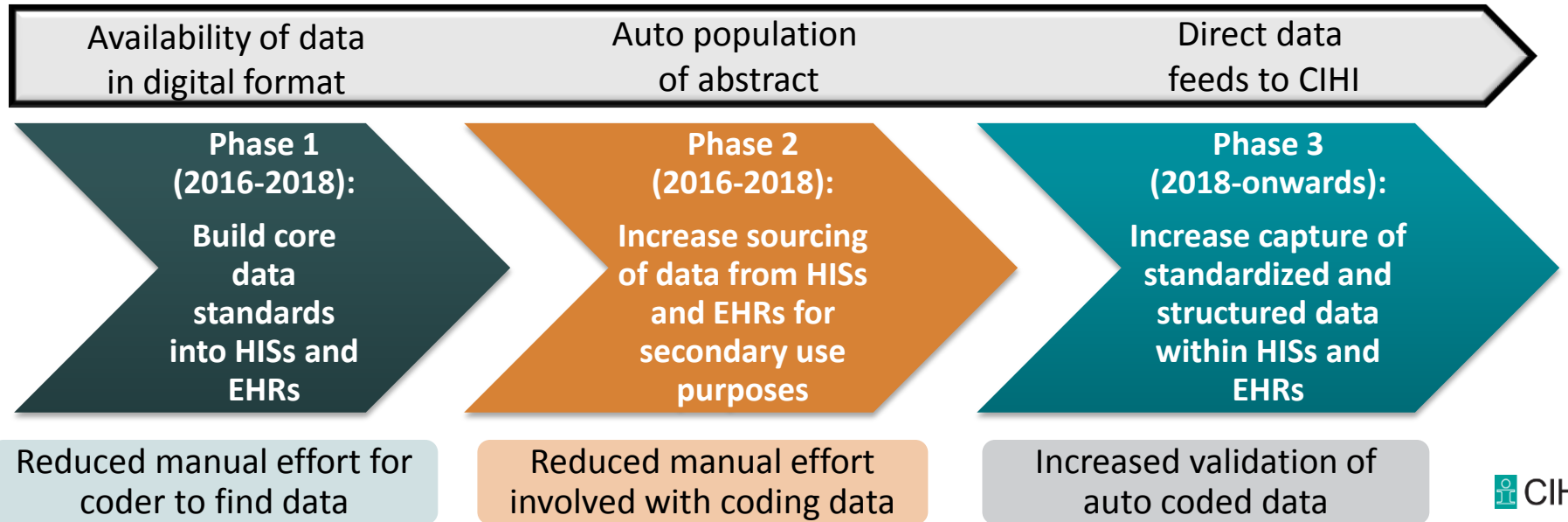
CIHI's hospital-based data

- **CIHI collects and reports on administrative, clinical and demographic data from facilities across Canada on hospital inpatient, day surgery, emergency and ambulatory care discharges.**
- **Data supply to CIHI is mandated by provinces/territories**
- **Data is used for a variety of purposes including funding, system planning and evaluation, utilization management and research.**
- **Three CIHI data holdings:**
 - Discharge Abstract Database (DAD): inpatient and day surgery data
 - Over 3 million records processed in 2014-15
 - National Ambulatory Care Reporting System (NACRS): emergency department, day surgery and clinic data
 - Over 21 million records processed in 2014-15
 - Hospital Morbidity Database (HMDB): Quebec's inpatient and day surgery data

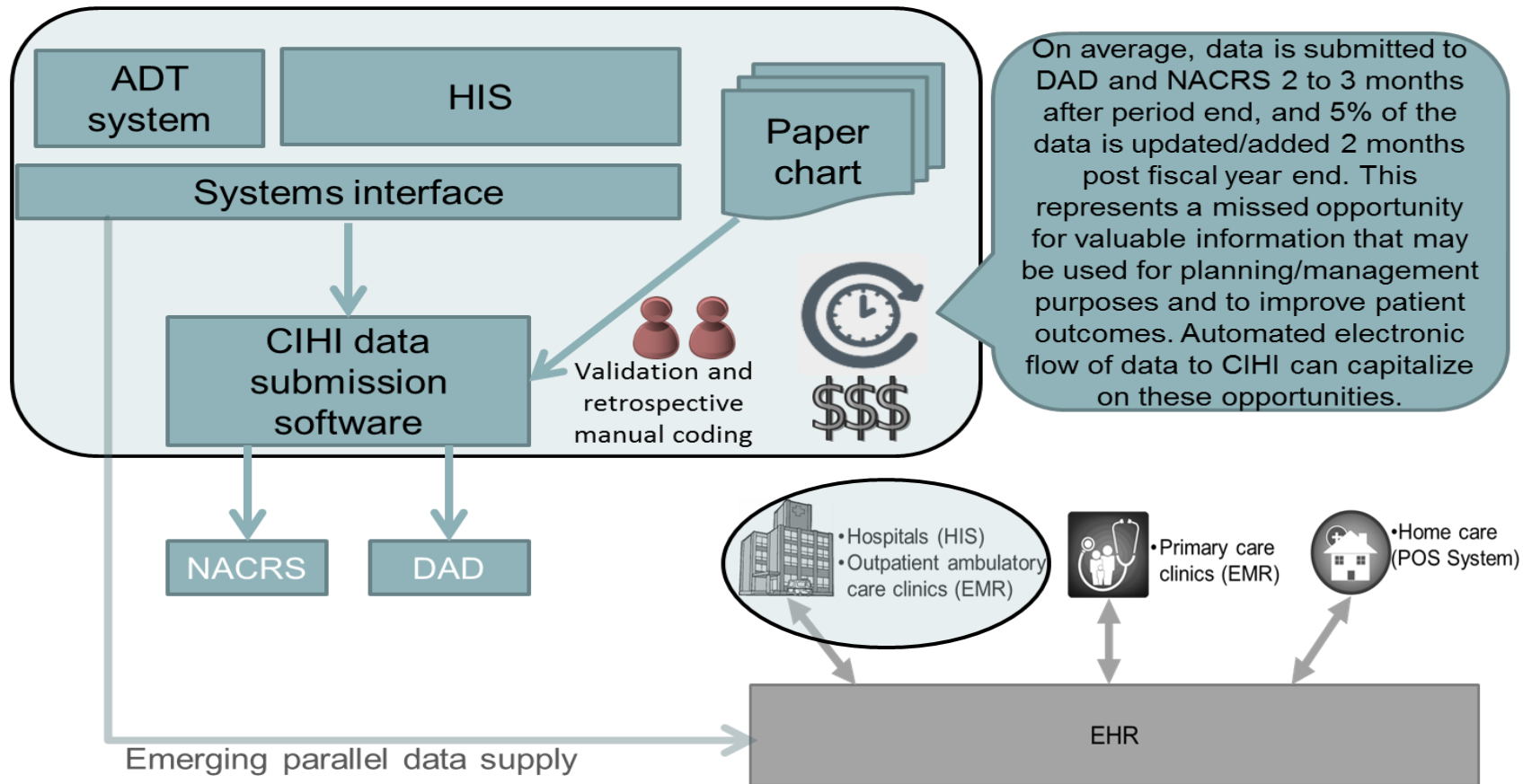
CIHI's data supply strategy: overview

Objectives:

- Reduce data collection and submission effort/burden
- Collect new data in priority areas
- Increase efficiency and timeliness of data acquisition and turnaround



Data flow to CIHI: current state



Opportunities for improvement

Cost

\$34M spent on DAD and NACRS data submissions in ON in FY 2014-15

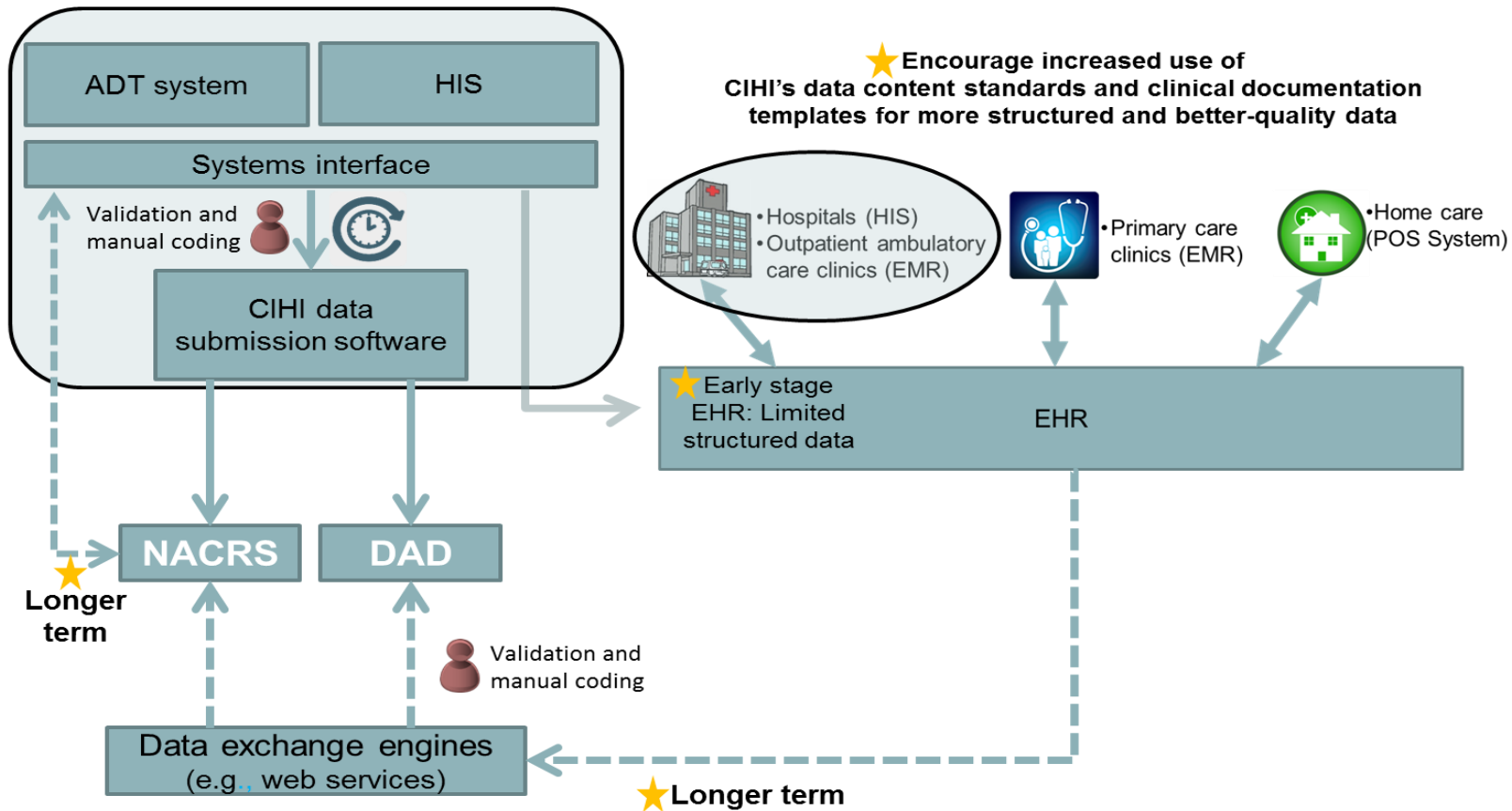
Time

Data generated by a clinician is reported to CIHI an average of 2-3 months after its creation

Resources

620 FTE coders are required each year for DAD and NACRS reporting in ON
These can be redirected to provide enhanced services and increase capacity

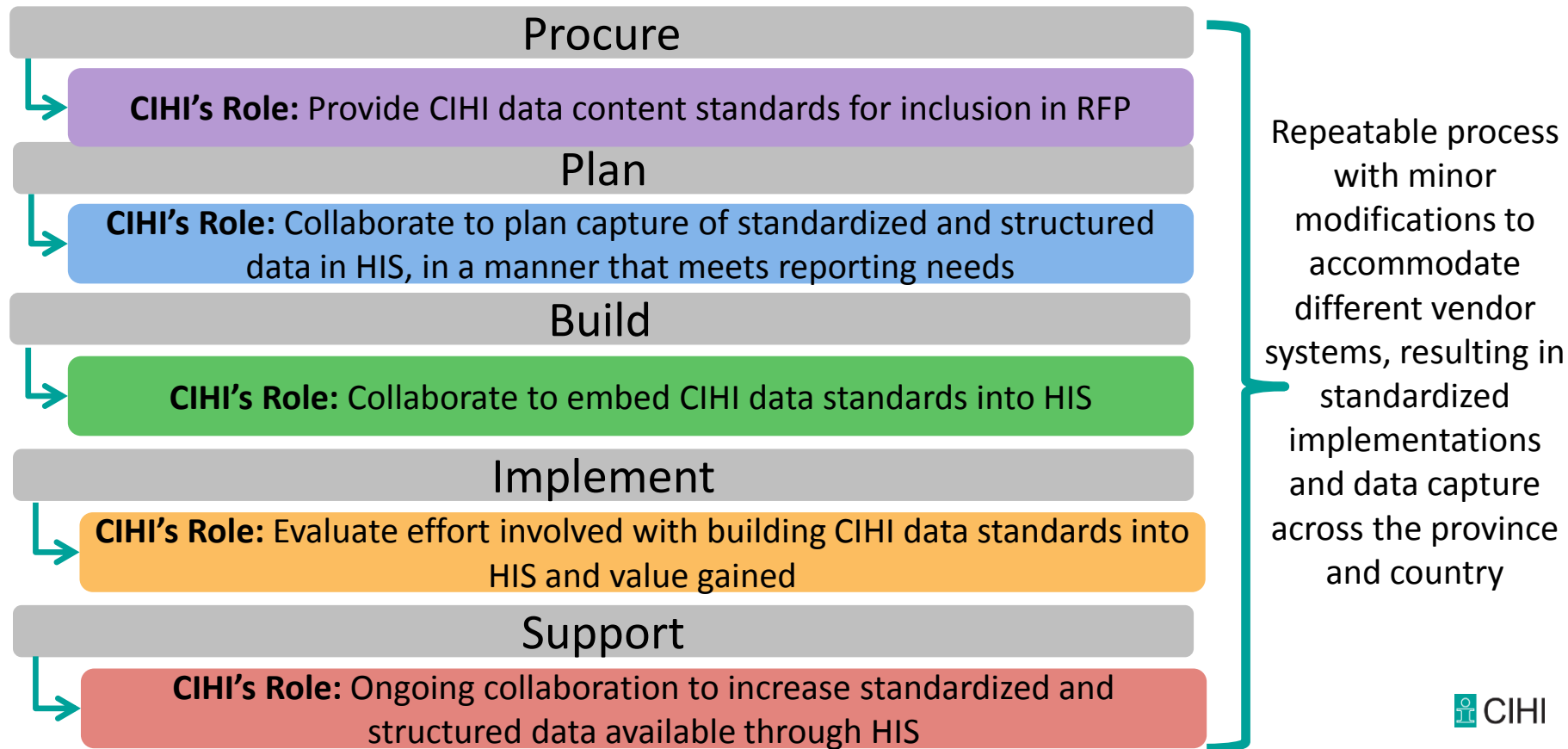
Data flow to CIHI: future state



Benefits of undertaking this work

- **Collect data once and automate its flow to achieve richer, more timely data with which to manage the health system at a lower per record cost**
 - Can enable predictive analytics to support smarter care/care orchestration, active patient management and planning and better outcomes
- **48% of a DAD abstract can be auto-populated from data available in HISs today.**
 - These can include: demographic data; some arrival and discharge data; and some patient flow/episode of care data
- **78% can be auto-populated or fed to CIHI directly if data is standardized at source in accordance with CIHI's data requirements.**
 - Opportunities to standardize exist with: demographic data, some arrival and discharge data; some patient flow/episode of care data; diagnosis data and intervention/service; and provider data
- **Estimated saving = 6.6 min per record; which can translate to 319,000 hours saved per year.**

CIHI's proposed role in HIS Renewals



CIHI's acute and ambulatory care data standard

AAC Data Content Standard is available at no cost on [CIHI's website](#)



How did the patient arrive at the hospital or clinic?
Why did the patient come to the hospital or clinic?

Arrival Data
Triage Data
Diagnosis Data



What services did the patient receive?
Who provided the services?

Intervention/
Service and
Provider Data



Did the patient occupy an inpatient bed?
For how long?
Did this affect inpatient length of stay days?

Patient Flow/
Episode of Care
Data



Where did the patient go after discharge?
Was the patient readmitted within 30 days?

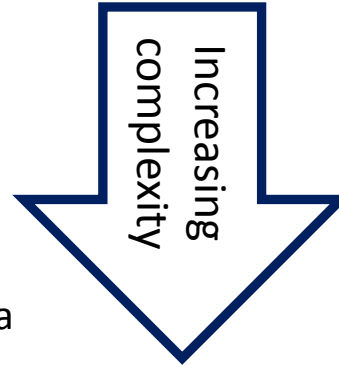
Discharge Data

Demographic and Organization Data

Repeatable process across hospitals

1. Plan the data standards that will be embedded in the HIS, in the following order:

- a) Demographic and organization data
- b) Arrival and discharge data
- c) Patient flow/episode of care data
- d) Diagnosis data
- e) Intervention/service and provider data



2. Build data exchange interface between HIS and CIHI to receive embedded data elements

3. Evaluate effort and benefits

4. Expand/add data standards that are embedded in HIS





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