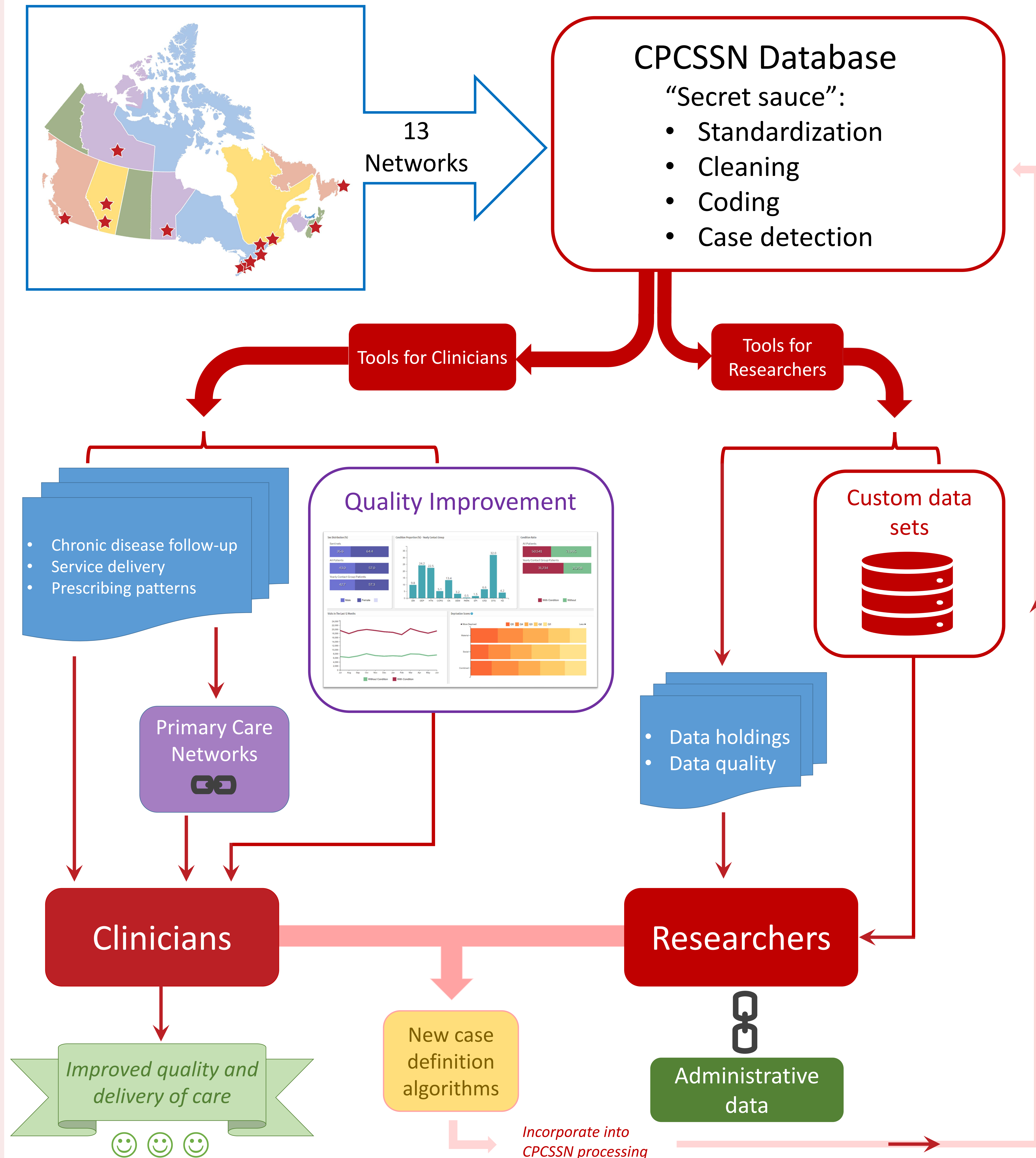


Background

- Almost 90% of all primary care practices in Canada use electronic medical records (EMRs).
- The Canadian Primary Care Sentinel Surveillance Network (CPCSSN) is a network of 13 practice-based research networks that has utilized EMRs to build a unique database of primary care data.

Methods

- Extract de-identified data from 17 EMRs, standardize and anonymize records.
- Standardization includes:
 - dates;
 - measurement units;
 - mapping values to restricted subsets;
 - common ontologies and terminologies (ICD-9, LOINC, ATC, and SNOMED-CT).
- Tools were developed to automate extraction, processing, and report generation, and to provide interactive ways for clinicians to visualize their data.



Results

As of December 31, 2020

CPCSSN has:

- 1,710,275 patients
- 1,399 providers
- 254 practices
- From 7 provinces across Canada
- Mean age 43 years; 54% female; 83% urban
- >150 peer-reviewed publications
- 17 case-detection algorithms
- Interactive web tool for quality improvement (QI)
- Reports for researchers on denominators, case definitions, and measures of vulnerability
- >130 projects using CPCSSN data.

Conclusions

CPCSSN data has many demonstrated uses including quality improvement, public health surveillance, and research, and offers valuable insights into primary care practice improvement and service delivery.