




A new web-based
interface to interrogate
BQC19 data


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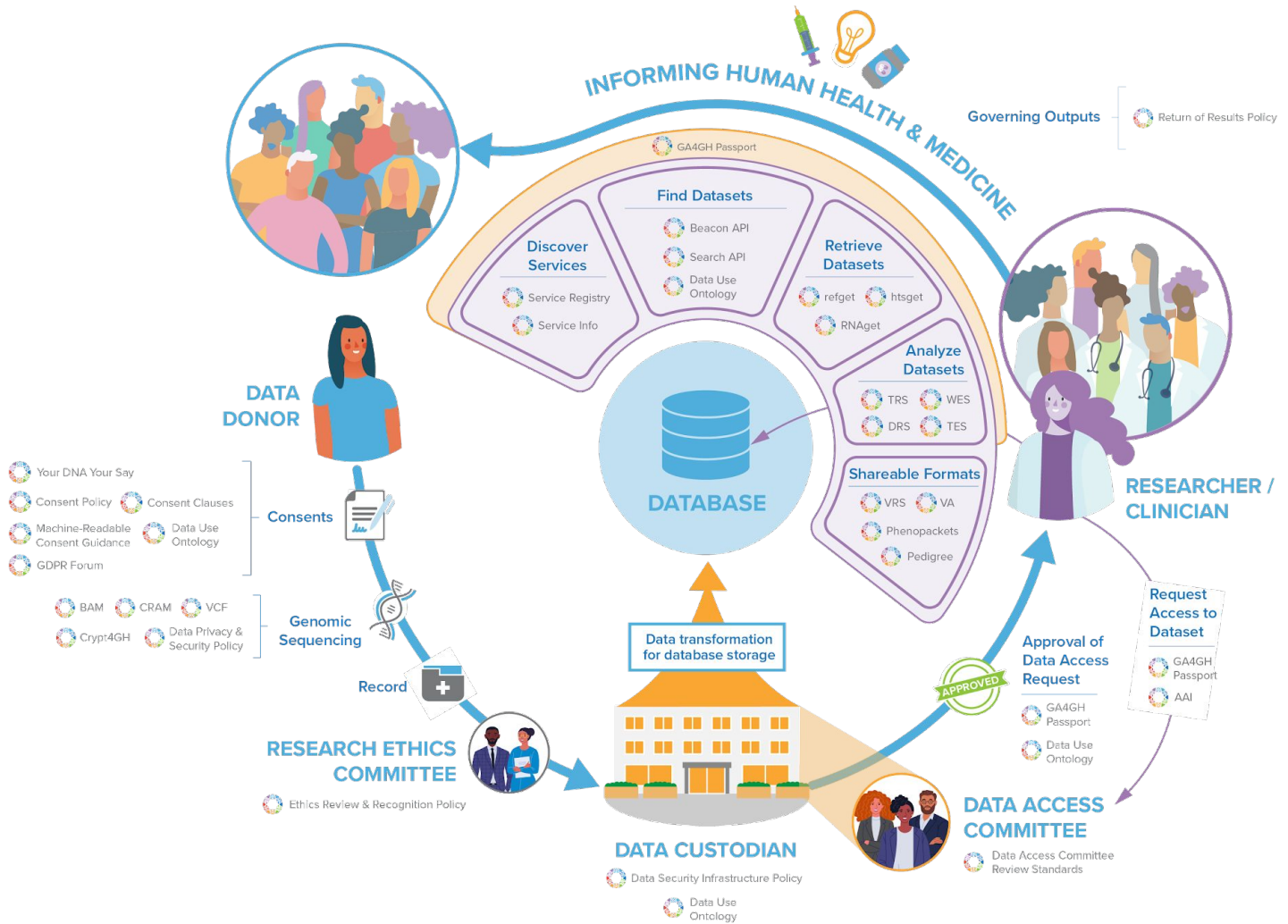
Goals



- ① Enabling the research community to explore the BQC19 cohort aggregate data
 - ① Figuring out whether the cohort would be a good match for their research needs
 - ① Being able to do this **before** going through the application process, and without the need for registration
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What is BENTO

- ◎ Project-agnostic data platform
 - Adapt project (meta)data to standards that others use
 - Increase compatibility with similar projects
 - As much as possible, develop things only once
 - ◎ Ingest, organise, store, retrieve and navigate -omics and clinical data
 - ◎ Compliant with GA4GH-standards for
 - Clinical data: **Phenopackets**
 - Public-facing APIs for connection with other initiatives: **Beacon v2**
 - Data ingestion pipelines: **WES**
- And more...

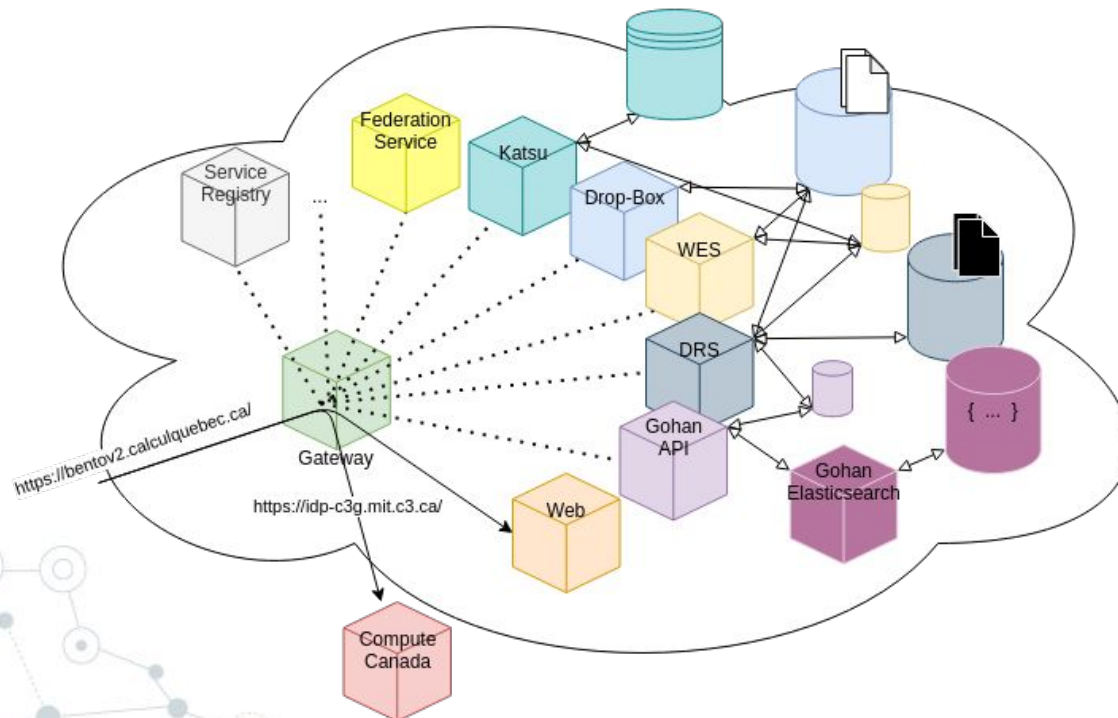


GA4GH sets of standards




What is BENTO

- ◎ Organisation of participant->biosample->experiments
- ◎ Adhering to metadata standards for better sharing
 - Provenance, ontologies, files formats, etc.
- ◎ Separation of concerns using microservices



What is BENTO

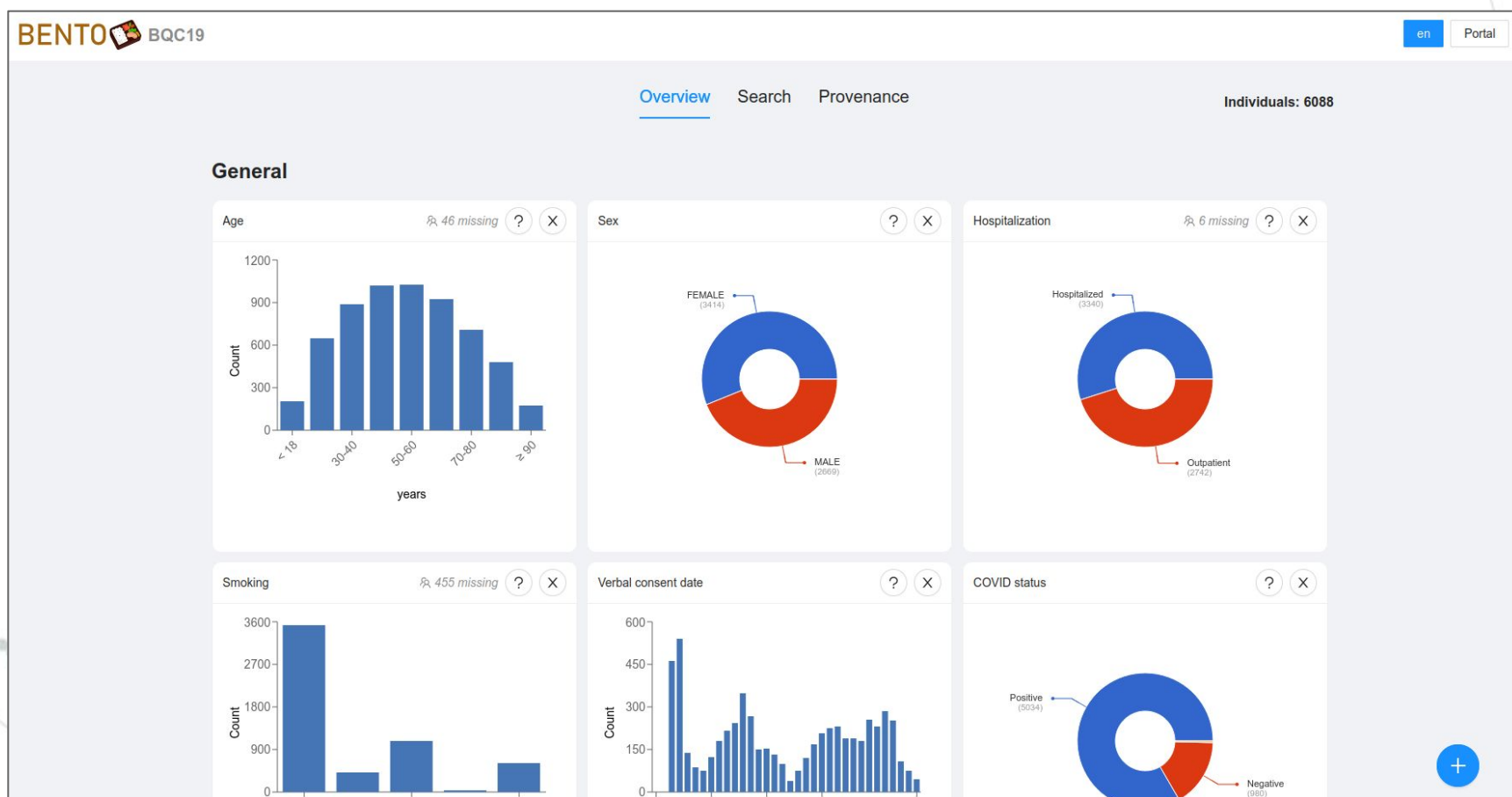
- ◎ BQC19 instance deployed at 
 - Cloud infrastructure for Health Data (sd4health.ca)
- ◎ Open Source Data services
 - Katsu: clinical/experiment data
 - ◎ Promotes usage of biomedical ontologies and controlled vocabularies for annotations
 - Gohan: genomic variants

BQC19 Bento platform

- ◎ Clinical, Genomic and Experimental data ingestion and organization
- ◎ “Public” portal for cohort-wide aggregate data queries
- ◎ “Private” portal
 - High-level data overview
 - Clinical properties / variants / experiments filtering
 - Per-participant exploration

BQC19 Bento platform

🕒 URL: bqc19.c3g.calculquebec.ca



BQC19 Bento platform

- ◎ URL: bqc19.c3g.calculquebec.ca
- ◎ Overview
 - Cohort-wide participants distribution, per variable
- ◎ Search
 - How many participants have a specific value for a given variable?
 - Max 2 variables at a time
 - No answers for 5 or less participants
- ◎ Provenance
 - Metadata describing the BQC19 dataset

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A decorative network diagram in the top-left corner, consisting of various sized nodes (some solid grey, some hollow white) connected by thin grey lines, forming a complex web structure.

Demonstration

bqc19.c3g.calculquebec.ca

A decorative network diagram in the bottom-right corner, similar to the one in the top-left, with nodes and connecting lines.