

Von Big Data zum lernenden Gesundheitssystem

Warum wir ein eine
Datenföderation für die digitale
Medizin brauchen

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eHealth Day Hamburg

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SAP Health Innovation Hub



Value Driven by Data

Digitalization leads to **data lakes**.
Machine learning can reveal
unexpected insights!

Why has the **Big Data** breakthrough
not happened yet in HEALTHCARE?

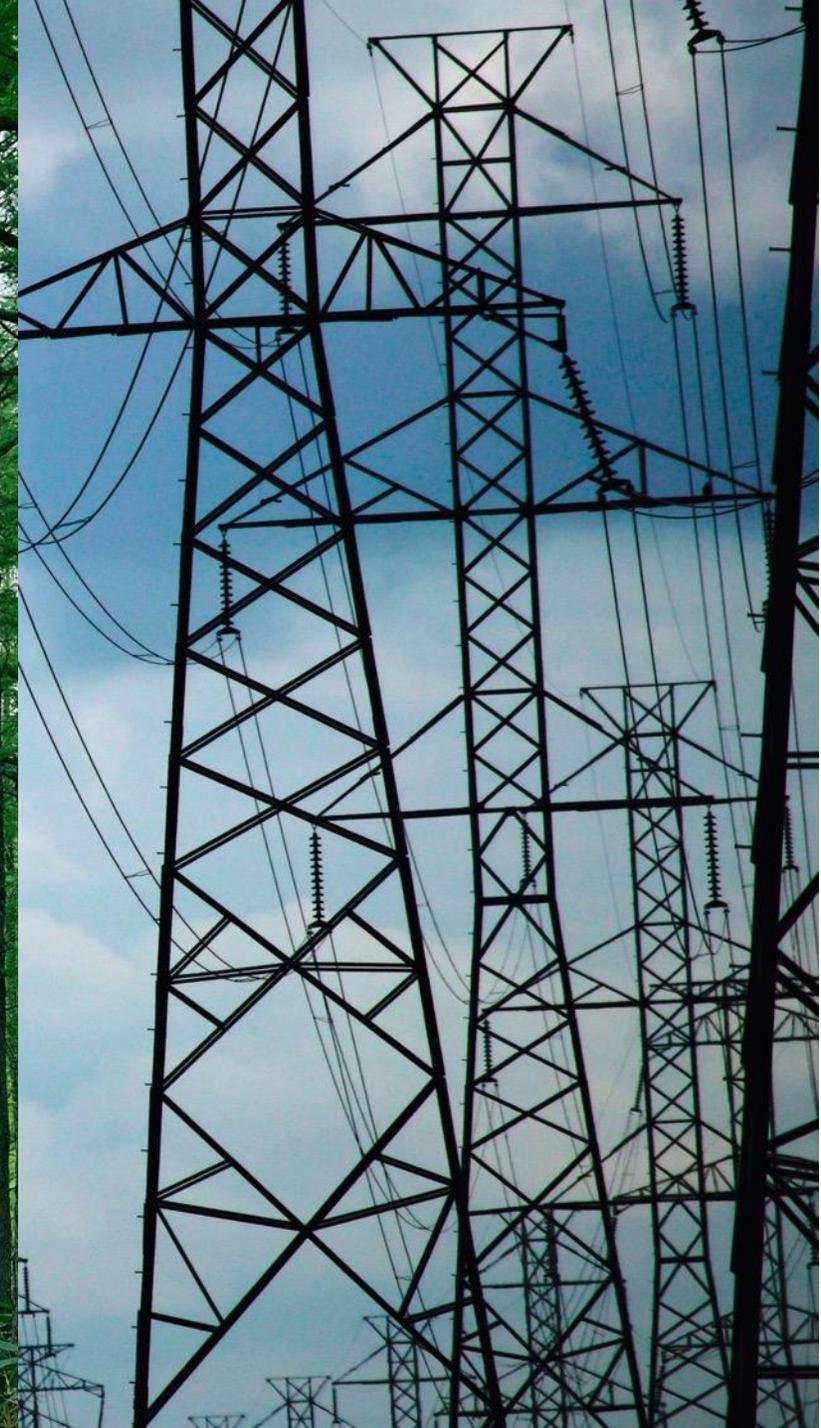


“Thinking, Fast and Slow” – Heuristics can Overcome Limitations

In spring:

Green tall objects = Tree

Grey tall objects = Electric mast



... now winter is
coming and the
heuristics fail!

Grey tall objects = Tree = Mast



Not yet in Healthcare

Why has the **Big Data** breakthrough not happened yet?



Data is Fragmented

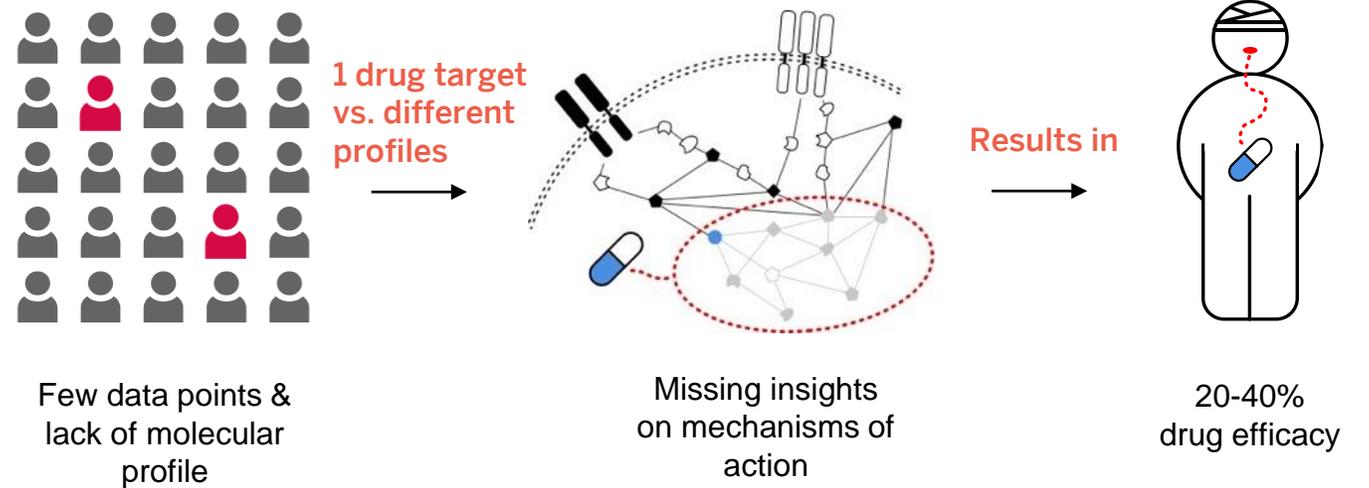
Access to data is limited to smaller sets – complex systems cannot be modelled.



Complex Diseases vs. "Gold Standard" Treatments

Drugs remain **ineffective** for complex diseases.

Gap in understanding biological complexity



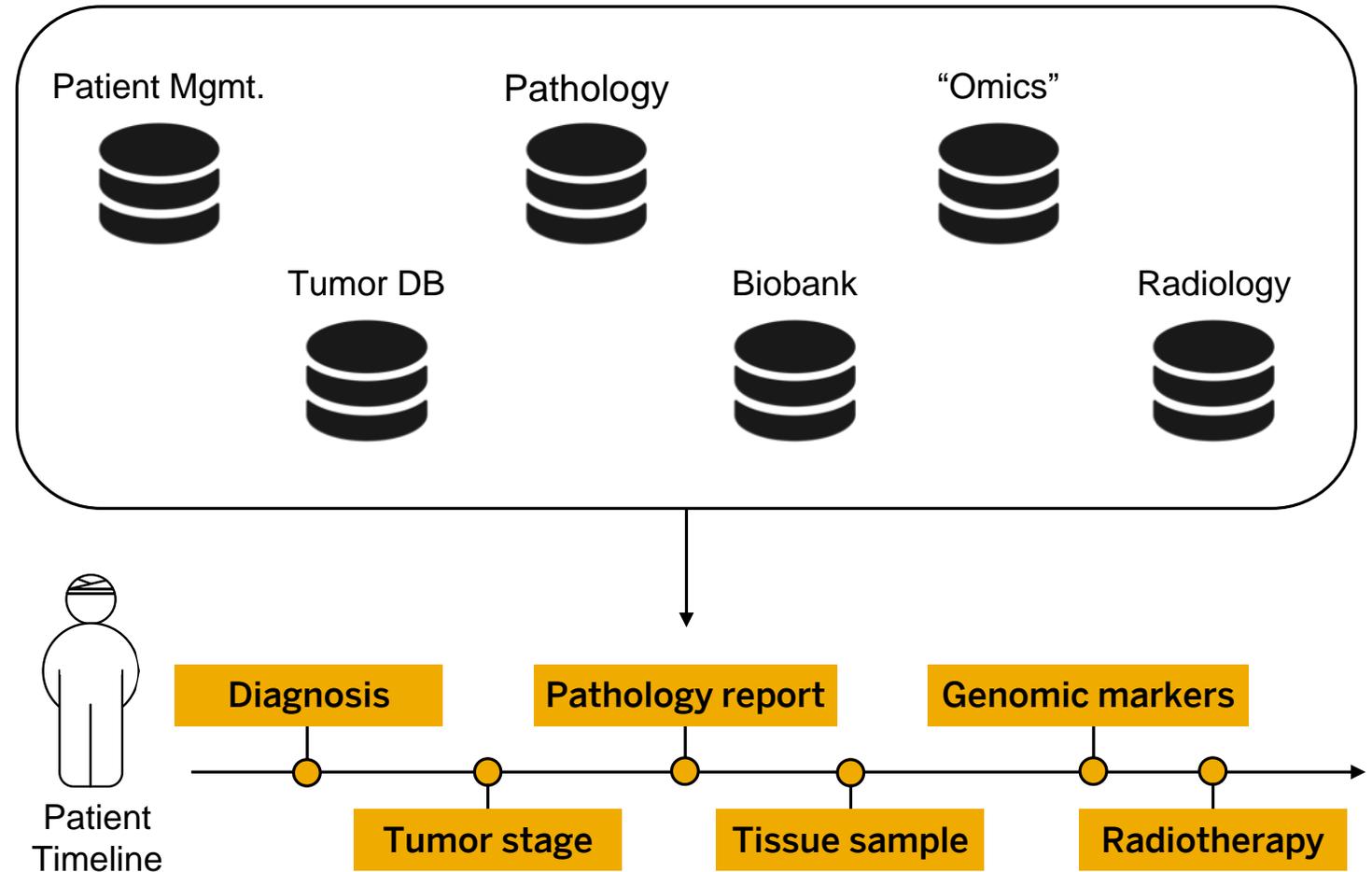
Treatment inefficacy



SAP Health Platform

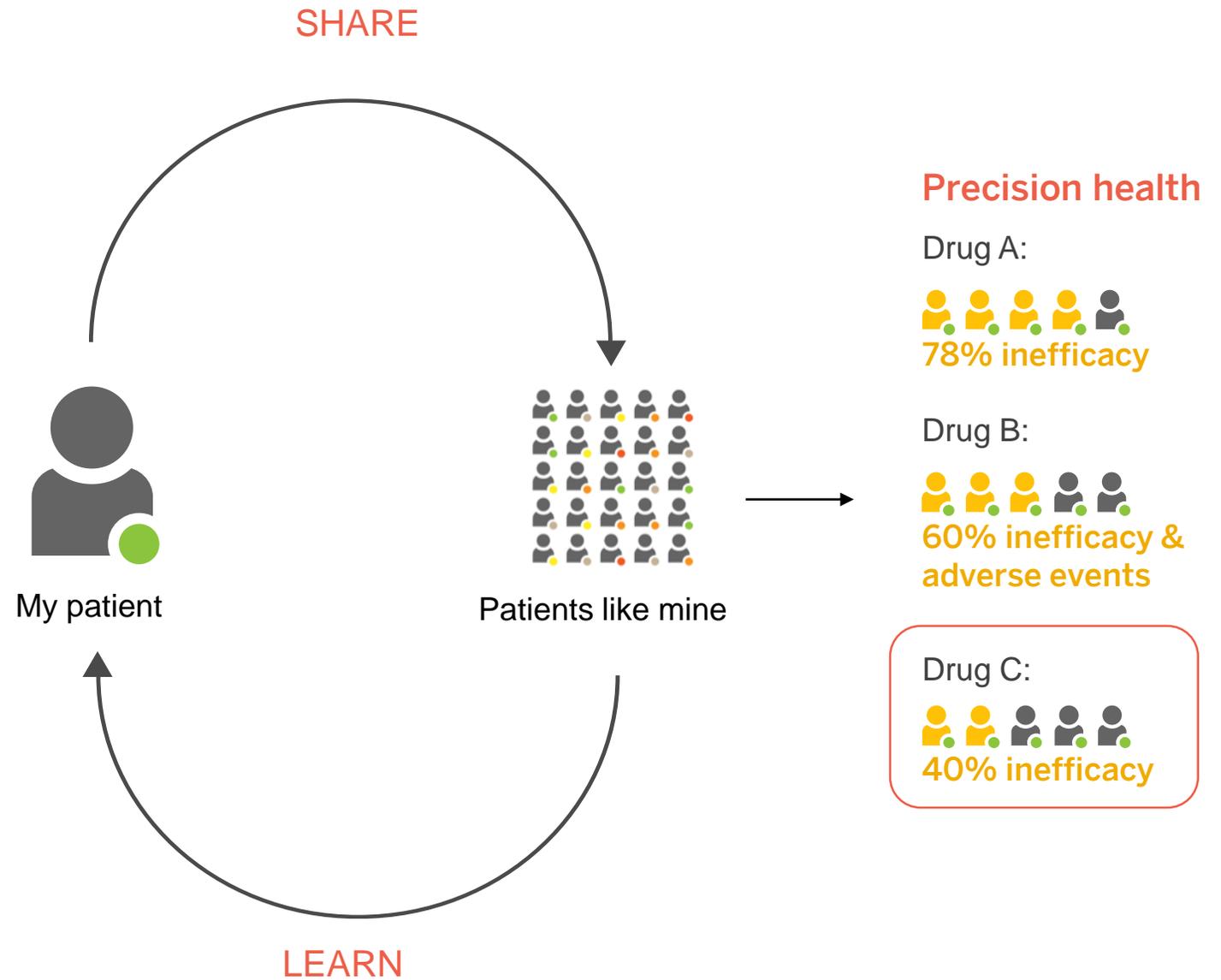
Healthcare specific services

- Generic clinical data model
- Data injection and replication
- Genomics layer
- Natural language processing
- Ontologies and dictionaries
- Access management



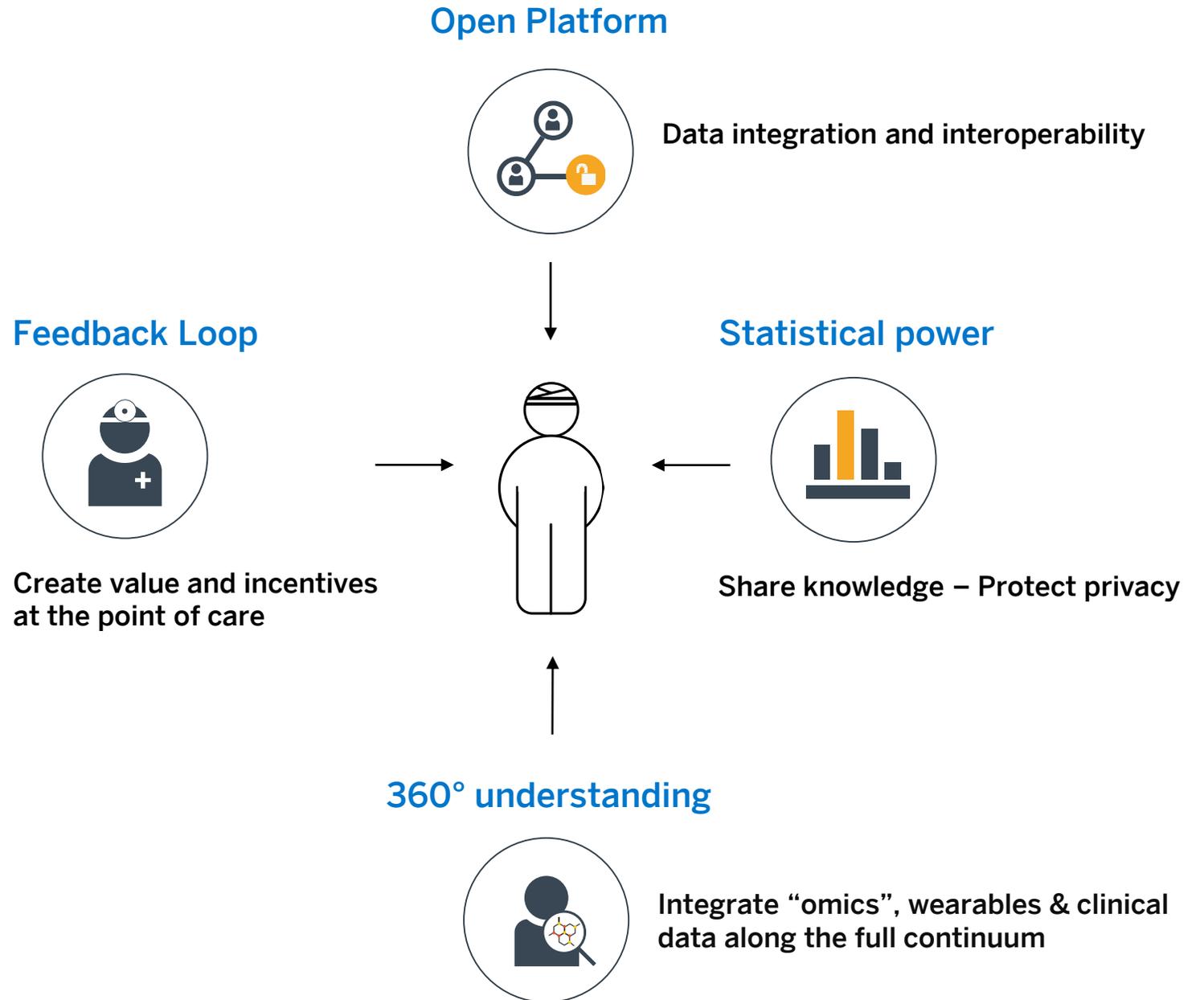
Close the knowledge Loop

“Patients like mine” Comparing individual patients with large populations.



Generate the Virtuous Circle!

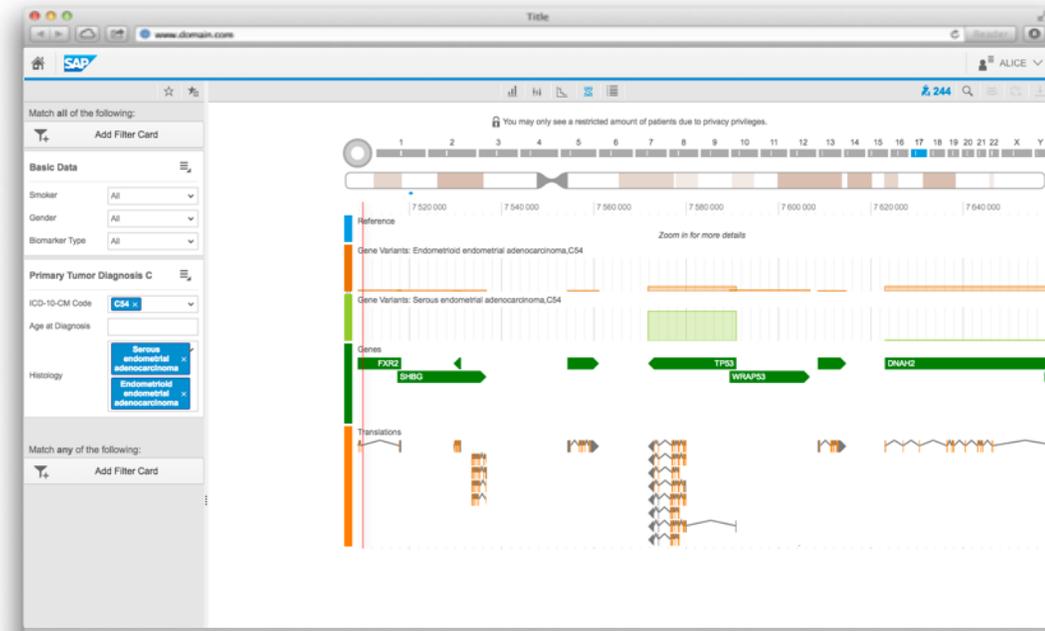
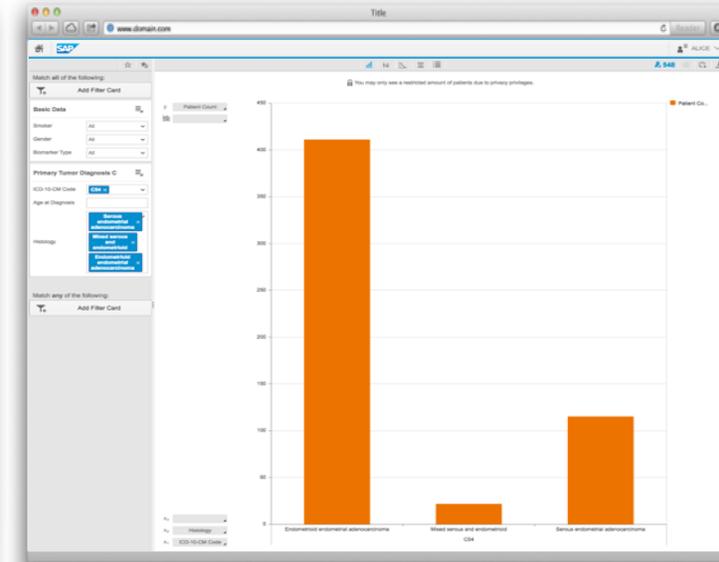
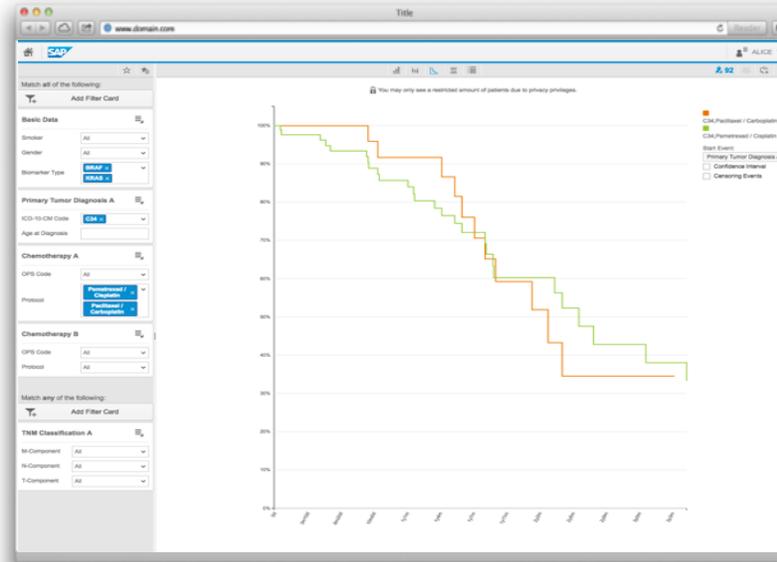
Technology – Regulation – Incentives



SAP Medical Research Insights

Patient Cohort Analysis

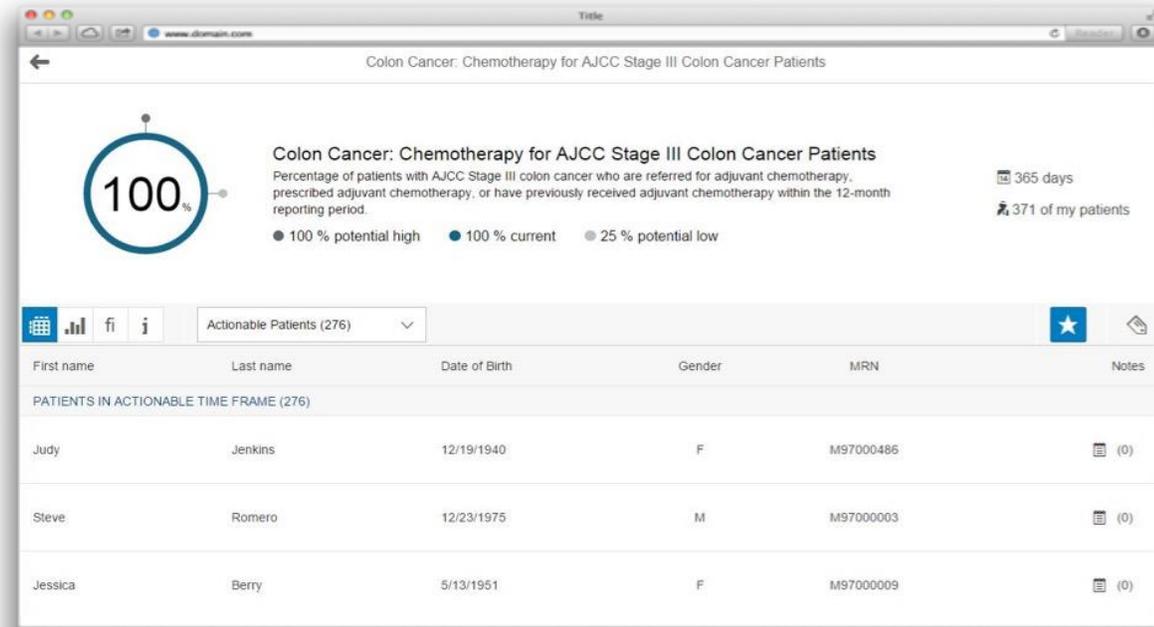
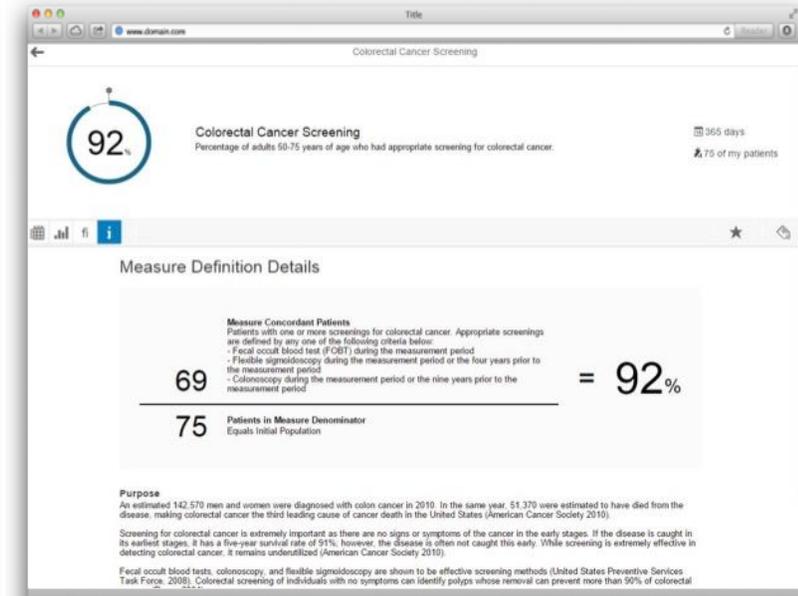
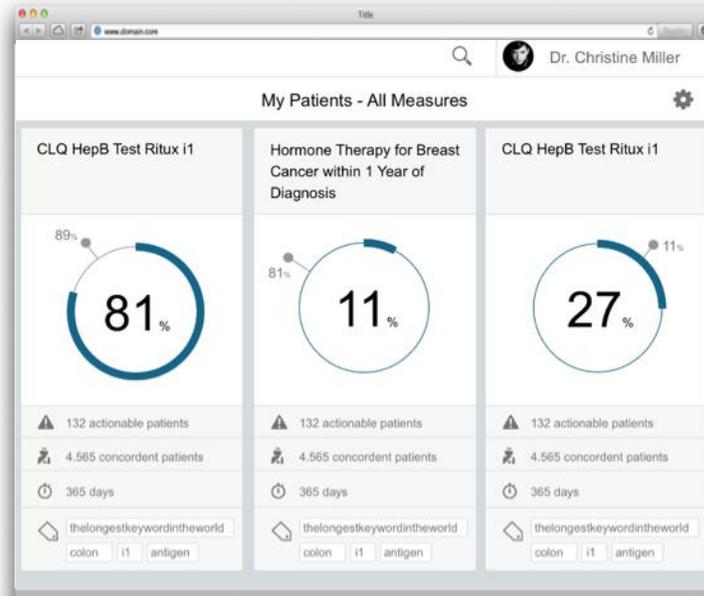
- Compare expected treatment outcomes on particular patient subgroups
- Explore patient cohorts
- Identify genetic markers



Clinical Measure Analytics

Continuous Quality Improvement

- Prospective
- Actionable
- Enable peer comparisons
- Process vs Outcome measures



SAP Connected Health

Data federation infrastructure enabling health networks



End-user license agreement

This software gives instant access to information from multiple sources and allows visualization and analysis of complex data sets in real time.

The software is not intended to be used for diagnostic or therapeutic purposes. In particular and without limitation, the software is not intended to be used for (i) final selection of patients for a clinical study; (ii) the detection, prevention, surveillance, treatment, or relief of diseases; (iii) the detection, surveillance, treatment, relief or compensation of injuries and handicaps; or (iv) the examination, substitution, or change of the anatomical structure or a physiological process of a human being.

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