

Notes:

Does it work for 80% of all care//health?
Trauma & surgery excluded...

Need some hint of the
Health Financial Experience.

This isn't linear: How do we show that non-linearity?

Need the builder perspective (engineer).

Patient Reported Data (a superset of Patient Reported Outcomes)

A **Consent** process shows and tells the patient about the purpose, benefits, and risks of the medical activity they're about to engage in. To proceed in using the product or completing the intervention, the patient needs to agree to participating and understands the pros and cons of participating.

Guide to Designing Consent:
<https://www.goinvo.com/vision/patient-centered-consent/>

Sage Bioworks Consent Toolkit:
https://sagebioworks.org/tools_resources/elements-of-informed-consent/

Access Controls for a Patient Data Manager shares data with anyone, as directed by the patient. The PDM always needs a patient's permission before sharing data.

Patients can share data for research, so scientists can learn more about humans and discover new treatments.

One can share data automatically during an emergency. First responders would be able to see critical health information about the patient.

Patients can review who has access to their data, and can stop sharing at any time.

Patient Data Use Agreement (pDUA)

(pDUA) is a contract between the patient and a service provider that states in clear, simple language or graphics, how data will be used and accessed. The pDUA is evidence for patients of how the service provider's will use, or not use, their information. More than just terms & conditions, the pDUA gives options for the terms of the agreement itself. It allows everyone to assess the trustworthiness and practices of a third party service. Options also include how data is transitioned, if the agreement is terminated. Patients need to be on the same legal altitude as healthcare services, apps, and hospitals. A binding data contract, governed by the patients, is critical to putting patients in control and protecting patients from corporate overreach.

References:
datauseagreement.org
1 pager:

<https://www.healthcareitnews.com/news/why-patients-and-providers-need-model-patient-data-use-agreement>

Patient Data Manager (PDM) is a digital service working on behalf of a patient to continually find, retrieve, add, edit, correct, and normalize data and construct a person's longitudinal health record. Because a patient's data comes from many places, the PDM takes it and puts it into the same place (one, comprehensive health record).

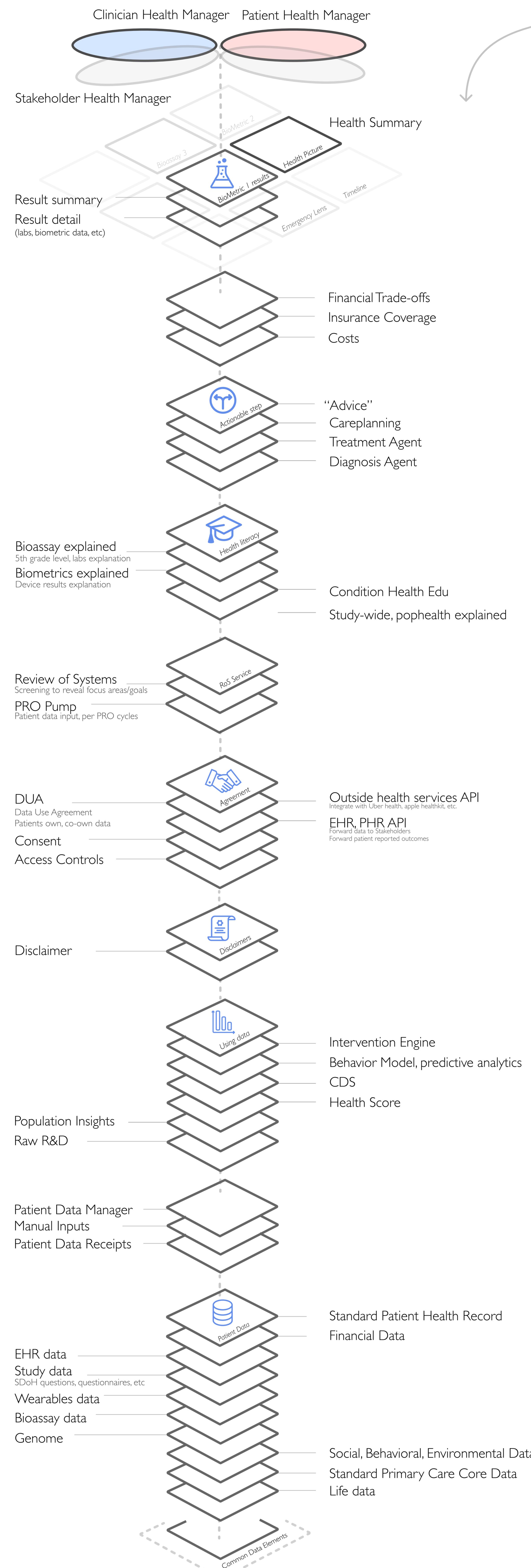
Manual Inputs is required for any data in your record. Mistakes happen. This is why you can correct and comment on your data.

Patient Data Receipt (PDR) is a digital record, a data record, of what happened at an encounter. Every clinical visit, every reading from a wearable, and all activity is digitally captured. The transaction between the service(s) and that patient is recorded in a PDR, and sent to the patient and legally required parties.

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Treatment Agent provides evidence-driven, standards of care for conditions (based on each diagnosis).

Diagnosis Agent looks at health data, symptoms, and patterns to identify specific conditions and diagnosis. Working independently of the patient, or with the patient, or with the entire care team, ratchets up the quality and accuracy of the diagnosis.

Review of Systems (RoS) is a checklist and catalog of a patient's body systems, collected by a series of questions.

A goal in healthcare is to have an accurate, up-to-date, and in-depth personal and family history. An always-evolving RoS aids in identifying signs and symptoms, creating care plans, and learning about a patient. Seeing a person's entire system information and dynamics help to provide the right care, at the right time, at the right dose, in the right setting.

Patient-Reported Health Data (PRDs) is any status of a patient's health coming directly from the patient, without any interpretation or interference.

The patient is most used health sensor in the entire healthcare system.

Patient feelings, pain, environment, symptoms, and experiences can be captured in short, structured data through low-burden methods (such as voice, multi-second reporting, sound snippets, etc). The PRO Pump is the PRO collection service, which is critical for closing the learning health system loop.

An **Intervention Engine** uses patient health projections and relevant recommendations to care plan in near-real time. Intervention services feed digital care plans with personal health content and metrics, and behave autonomously or in conjunction with medical providers.

Poster:
https://www.goinvo.com/old/images/features/careplans/part3/intervention_engine_poster_final.pdf

Clinical Decision Support (CDS) services... Tools for patients and clinicians that aid in decision-making with diagnosis, treatment, and care planning. Models based on personal information and peer-reviewed evidence of many-like people, reveal options on how to diagnose or treat a condition or warn of possible futures.

An example is the Mayo Clinic Statin CDS:
<https://statindecisionaid.mayoclinic.org/>

Standardized, interoperable content
Standardization of care plans will aid in communication and collaboration across care team members over time, providing high-quality longitudinal care with reduced risk for medical error.

If medical community leaders converge to develop clinical pathways into a library of robust care plan templates, they can then be customized to each patient's needs while still being interoperable among all care organizations.

Using consistent quality metrics, the effectiveness of these templates can be assessed to identify how they must evolve and improve.

There must be more consensus on care plan content. All this variation leads to miscommunication and errors in the transfer of care.

Patient Behavior Model is a psychologic, biologic, and environmental-based model of how a human acts and what stimulus they may best respond to. Personalized behavior interventions, based on a feedback loop of PRDs, physical and voice activities, and known conditions.

Health Score is a data-driven summary (in a single number) of the determinants of health to aid health decision making at the individual and population levels. Over time, a health score indicates a person's health and well-being.

https://en.wikipedia.org/wiki/Health_Score

Common Data Elements

Human and machine-readable definitions (key terms or concepts) of health data elements used to describe human biology, activity, and scenarios. A data element is like an attribute, which then maps to a value or set of values.

Standard Health Record:
<http://standardhealthrecord.org/>
<https://github.com/standardhealth>

NIH Common Data Elements:
<https://cde.nlm.nih.gov/home>