



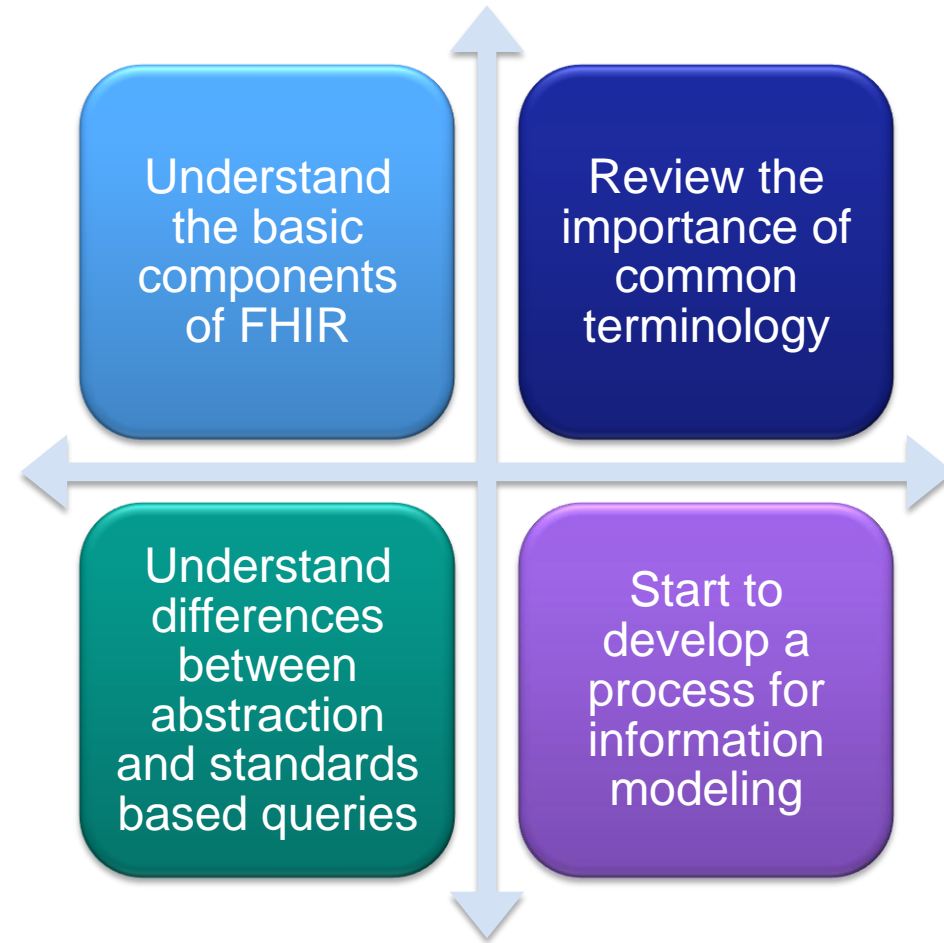
Partners in Interoperability: Clinicians

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Senior Clinical Advisor, Interoperability



Objectives



HL7[®] FHIR[®]

Fast

Healthcare

Interoperability

Resources



FHIR Supports 4 Interoperability Paradigms



REST


RErepresentational State






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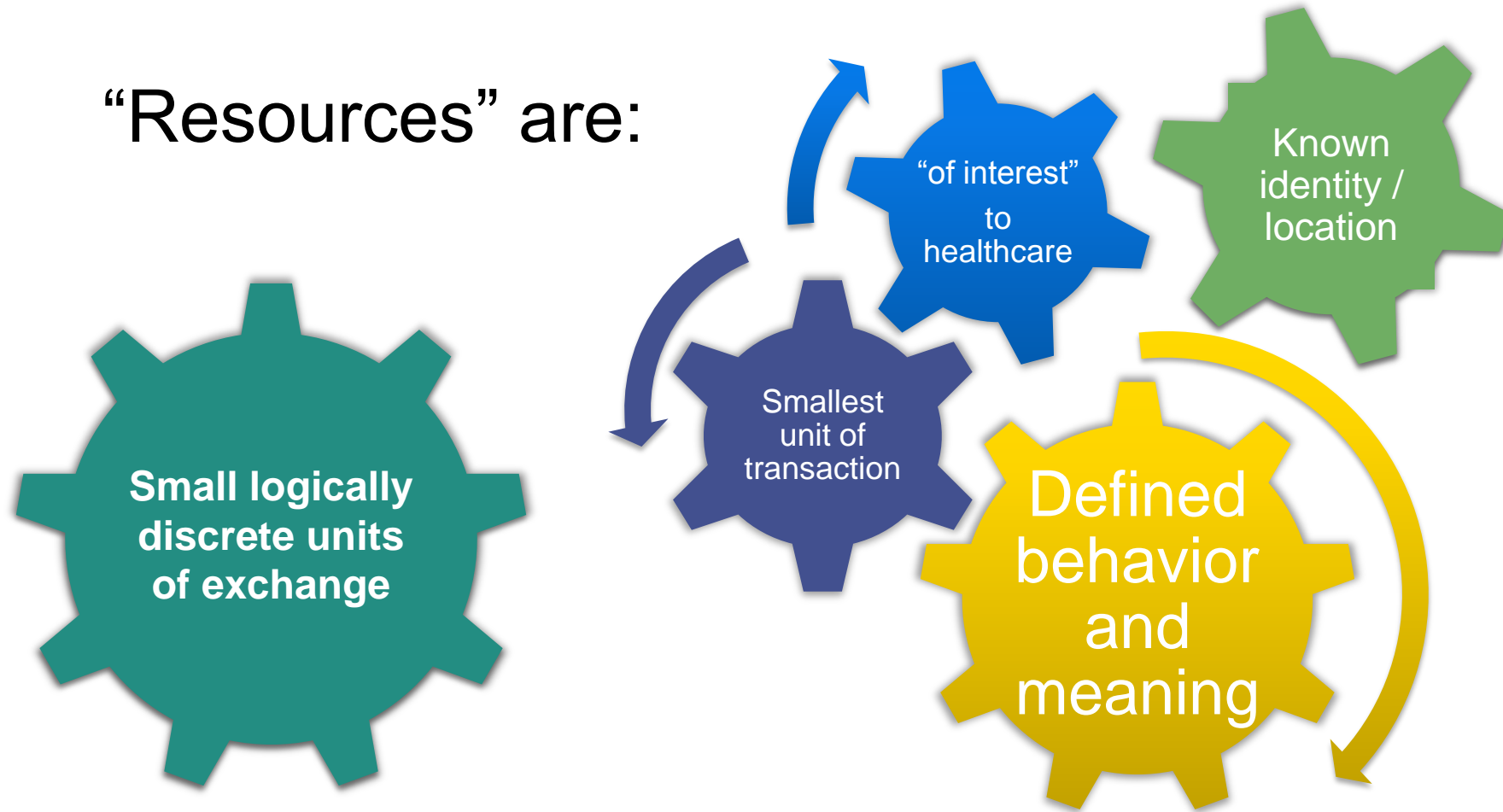
See price trends for your search Calculated with 86 searches					See price trends
	7:00a - 2:54p Alaska Airlines	10h 54m BOS - SJC	1 stop 2h 5m in SEA	1 left at \$712.20 roundtrip	Select
Flight details and baggage fees ▾ Satisfactory Flight (6.2 out of 10)					
	7:15p - 11:04p JetBlue Airways	6h 49m BOS - SFO	Nonstop	5 left at \$721.70 roundtrip	Select
Flight details and baggage fees ▾ Very Good Flight (8.2 out of 10)					
	6:59p - 10:50p Virgin America	6h 51m BOS - SFO	Nonstop	2 left at \$721.70 roundtrip	Select
Flight details and baggage fees ▾ Very Good Flight (8.3 out of 10)					
	7:02a - 10:54a JetBlue Airways	6h 52m BOS - SFO	Nonstop	5 left at \$721.70 roundtrip	Select
Flight details and baggage fees ▾ Very Good Flight (8.2 out of 10)					
	2:45p - 10:01p Delta	10h 16m BOS - SJC	1 stop 1h 51m in ATL	2 left at \$728.20 roundtrip	Select
Flight details and baggage fees ▾ Satisfactory Flight (6.3 out of 10)					
	5:05p - 8:44p JetBlue Airways	6h 39m BOS - SJC	Nonstop	5 left at \$743.46 roundtrip	Select
Flight details and baggage fees ▾ Very Good Flight (8.0 out of 10)					
	1:40p - 7:42p JetBlue Airways	9h 2m BOS - SFO	1 stop 1h 2m in JFK	3 left at \$751.97 roundtrip	Select
Flight details and baggage fees ▾ Good Flight (7.1 out of 10)					



Resources



“Resources” are:



What's a Resource?

Examples

- Administrative
Patient, Practitioner, Org
- Clinical Concepts
Allergy, Condition,
Family History,
Care Plan
- Infrastructure
Document, Message,
List

Non-examples

- Gender
— Too small
- History & Physical
Too big
- Blood Pressure
Too specific



How many Resources?



Release 1.0:
50 Resources

Release 2.0:
49 Additional
Resources

Goal:
100-150
Resources

FHIR Extensions: 80/20 Rule

FHIR Resources have data elements if **80%** of existing systems include them

Extensions are the other **20%**

- Meet specific use cases
- The encoding looks no different, just not in the standard



Do it in your organization, but doesn't scale

FHIR Profiles



Profiles are implementation guides

Built for specific use cases

Encompass the entire scenario

Profiles include entire implementation

Multiple Resources & Extensions

Vocabulary/terminology/code binding

Interoperability is in using the same profile

FHIR servers with public access to Profiles

Ah-ha moment on FHIR



Regardless of paradigm the content is the same*

It's straight-forward to share content across paradigms

e.g. Receive a lab result in a message.

Package it in a discharge summary document

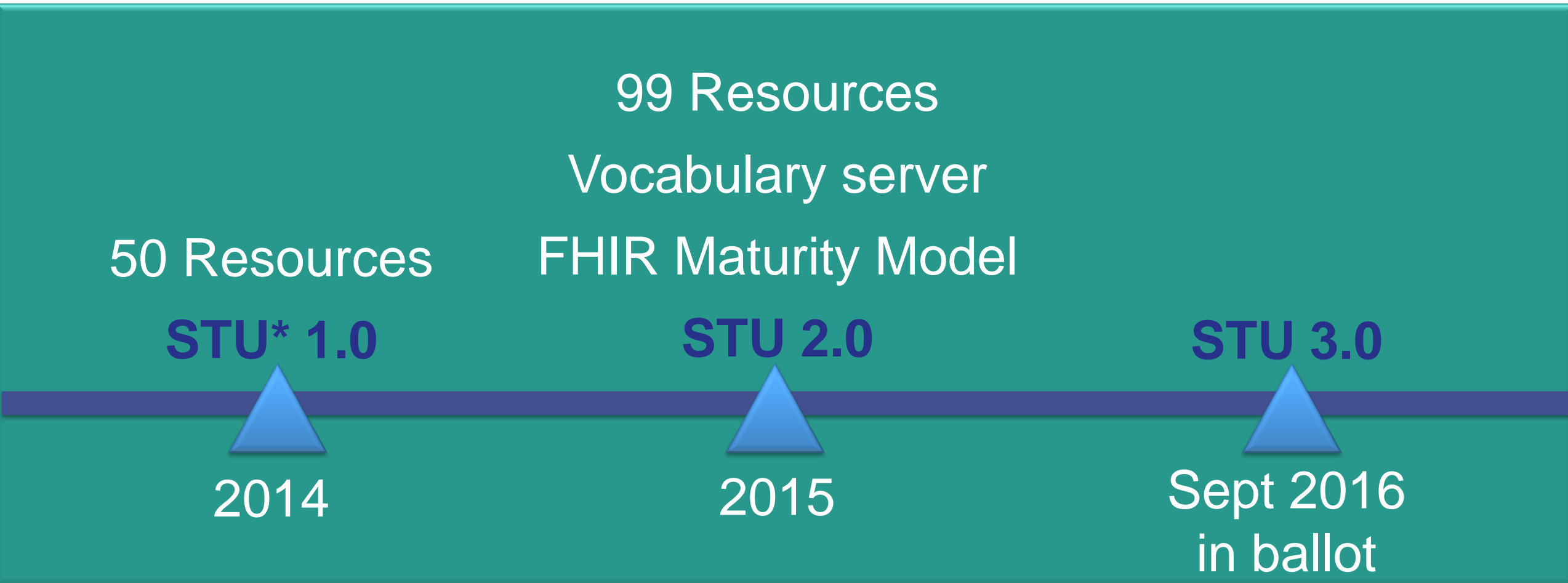
It also means constraints can be shared across paradigms

e.g. Define a profile for Blood Pressure; use same resources in messages, documents, REST and services

*** Ah-ha!!**



Timeline for FHIR development

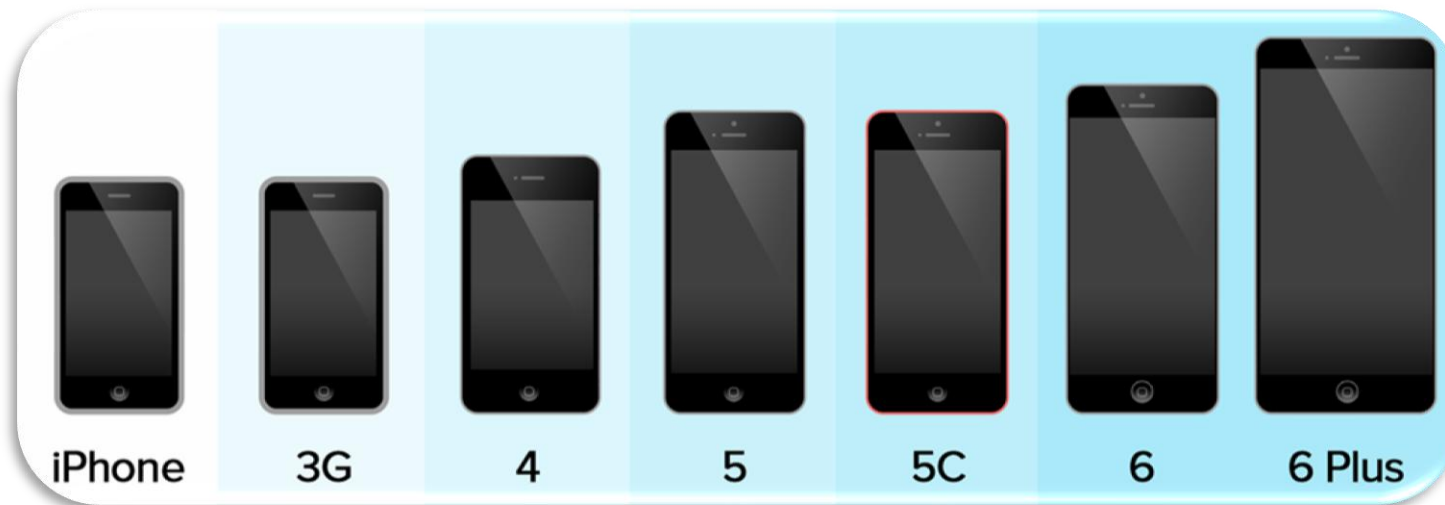


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iPhone Maturity Model

- People purchased and used the iPhone 2
- It did not have all of the features of iPhone 3
- Some features were improved, some were added
- iPhone 6 is even better, but you can still use earlier iPhones



Diabetes type II

BP 100/70

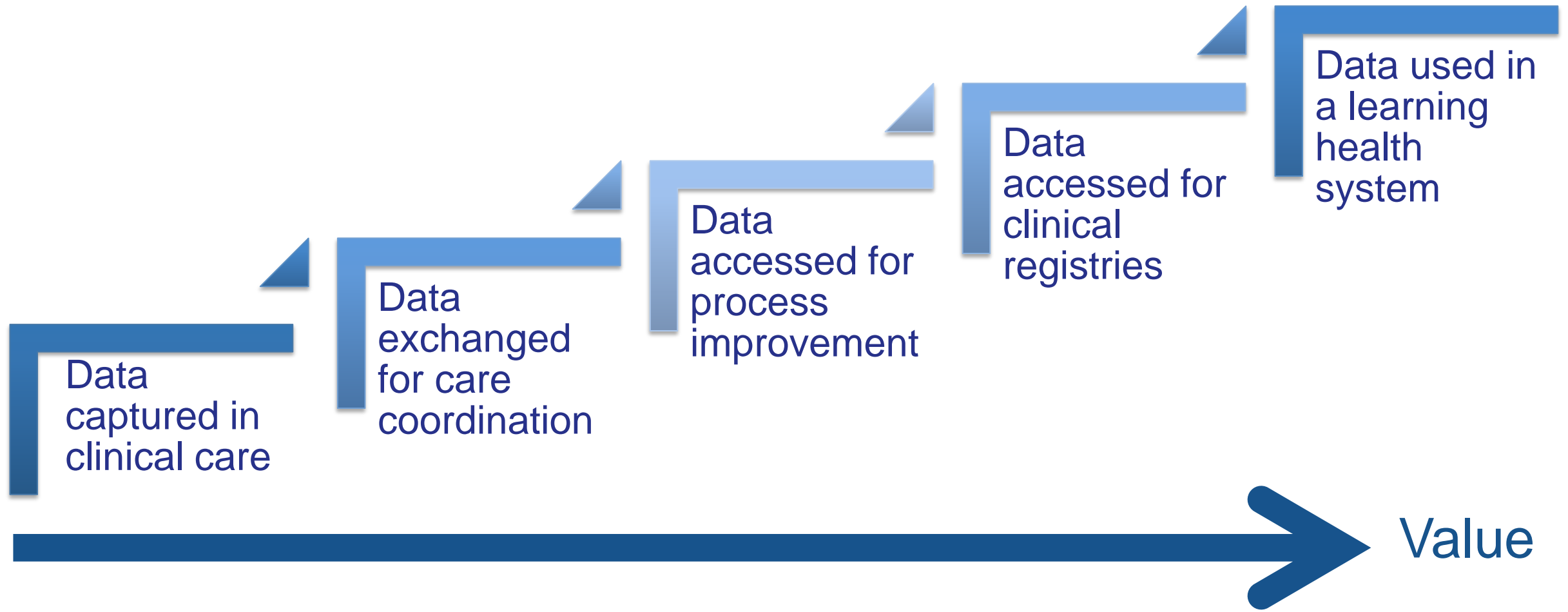
What if you took
scissors and cut a
History & Physical
into data elements?

Not Known

Blood glucose 135



Leveraging Data Collected in Clinical Care



Clinical Information Models and FHIR Profiles

