



Optimising the value of EHR
data by engaging clinicians
in data quality.

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Ethics approval CQUHREC
#0000023392.

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The EHR

**Structured EHR for
musculoskeletal
disorders**

**1 organisation
61 chiros, physios
and osteos**

Value based care

**Client/Clinician
reporting**

Approach

Clinical/ops team rank fields for importance

Literature review

Hypothesis development - clinical team

Stats

Clinical team discussion on findings

Improvement suggestions by clinical team

Frameworks for secondary use of EHR data

Kahn et. al 2016
A Harmonised DQ assessment terminology and framework for secondary use of EHR data.

Parameters:

Completeness
Conformance
Plausibility

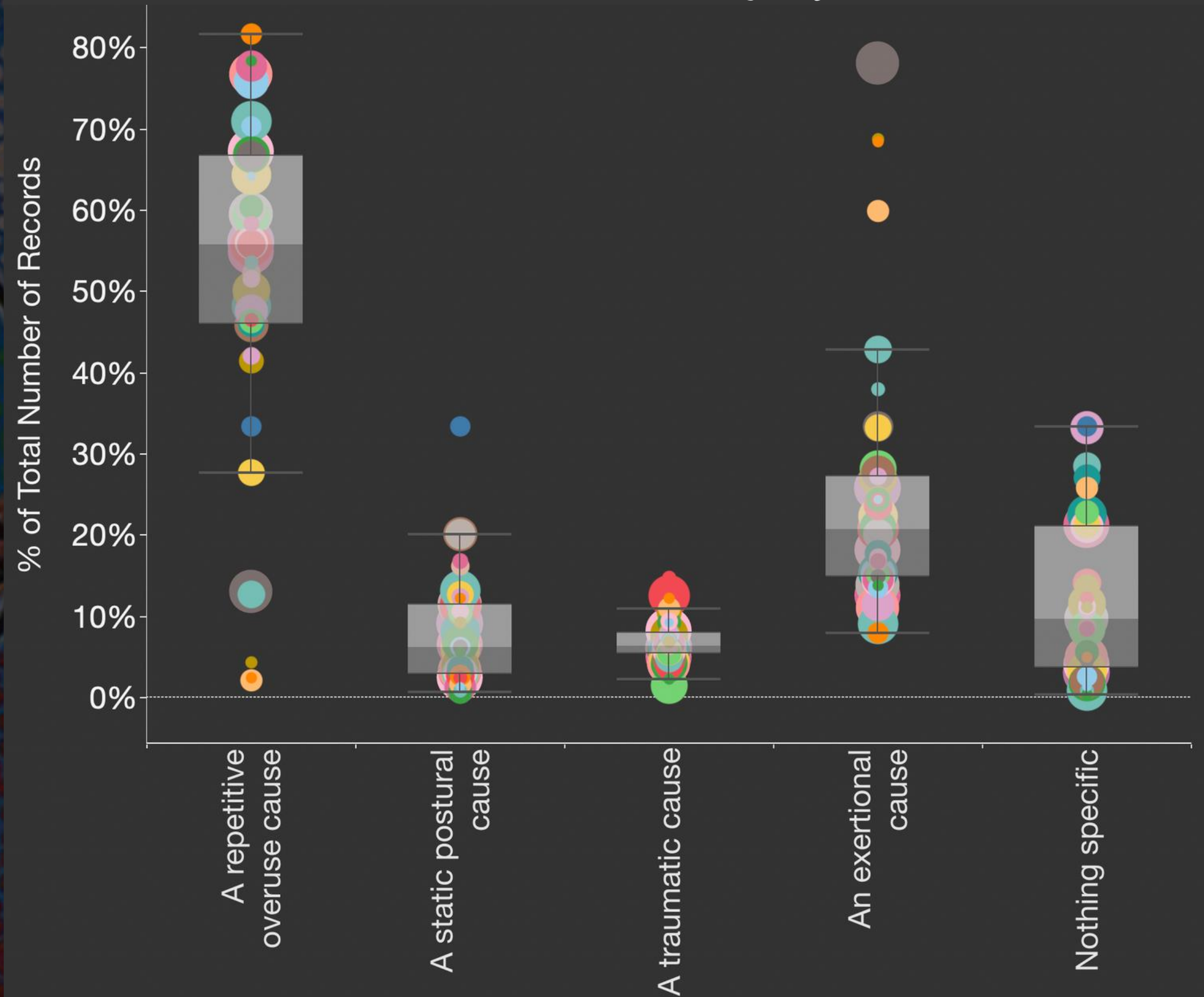
Liaw et. al 2021
Quality assessment of real-world data repositories across the data life cycle: A literature review

Parameters:

Timeliness
Relevance/Reusability
Accessibility/Availability
Operating platform
Interoperability
Governance

Should we build a
ML model using this
data?

Mechanism of Injury

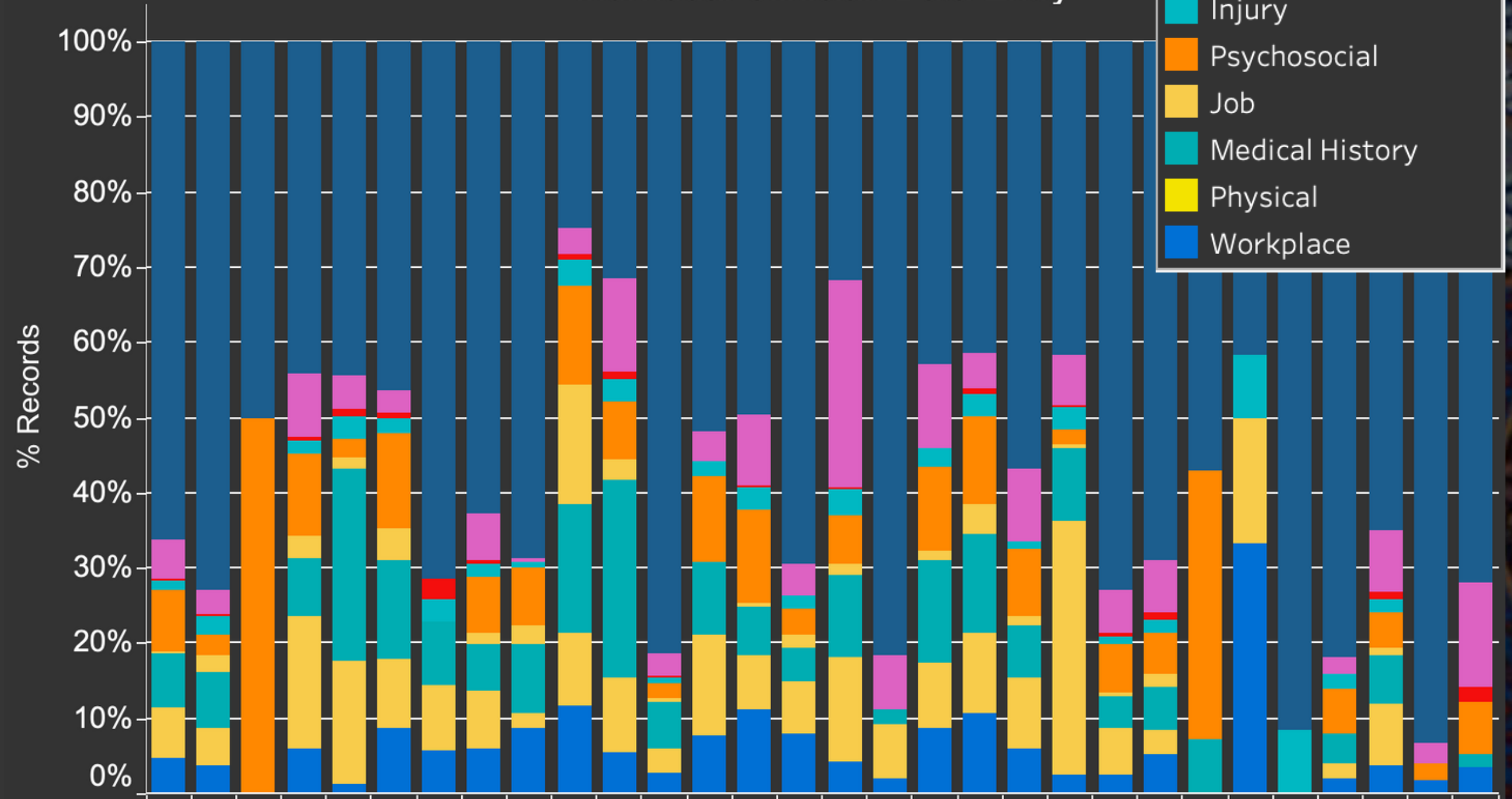


Colour = Individual clinician, Size = number of records

What about a ML model using this data?

Obstacles to recovery

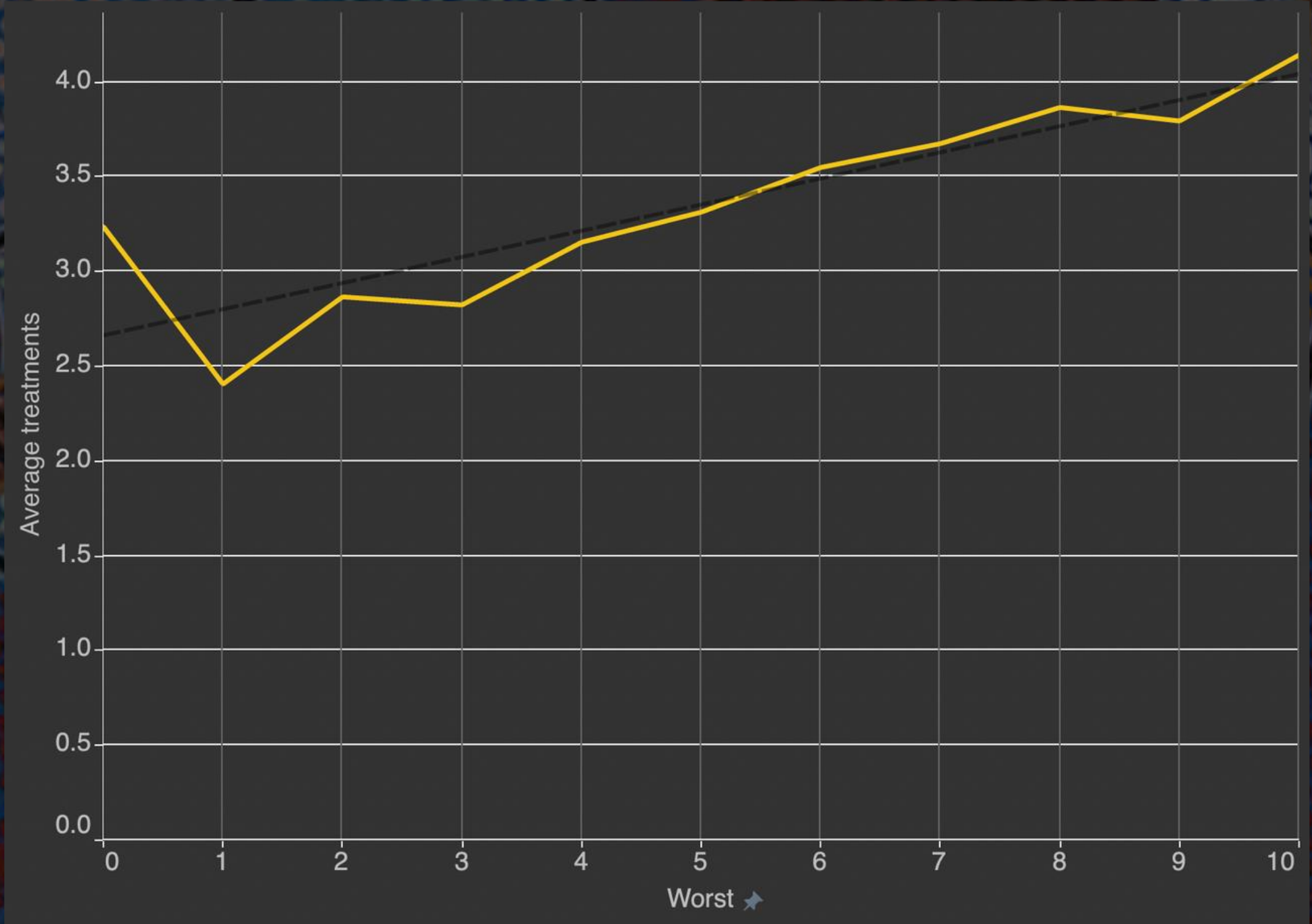
Individual Clinician Data Entry



Columns = individual clinicians, color = category of obstacle

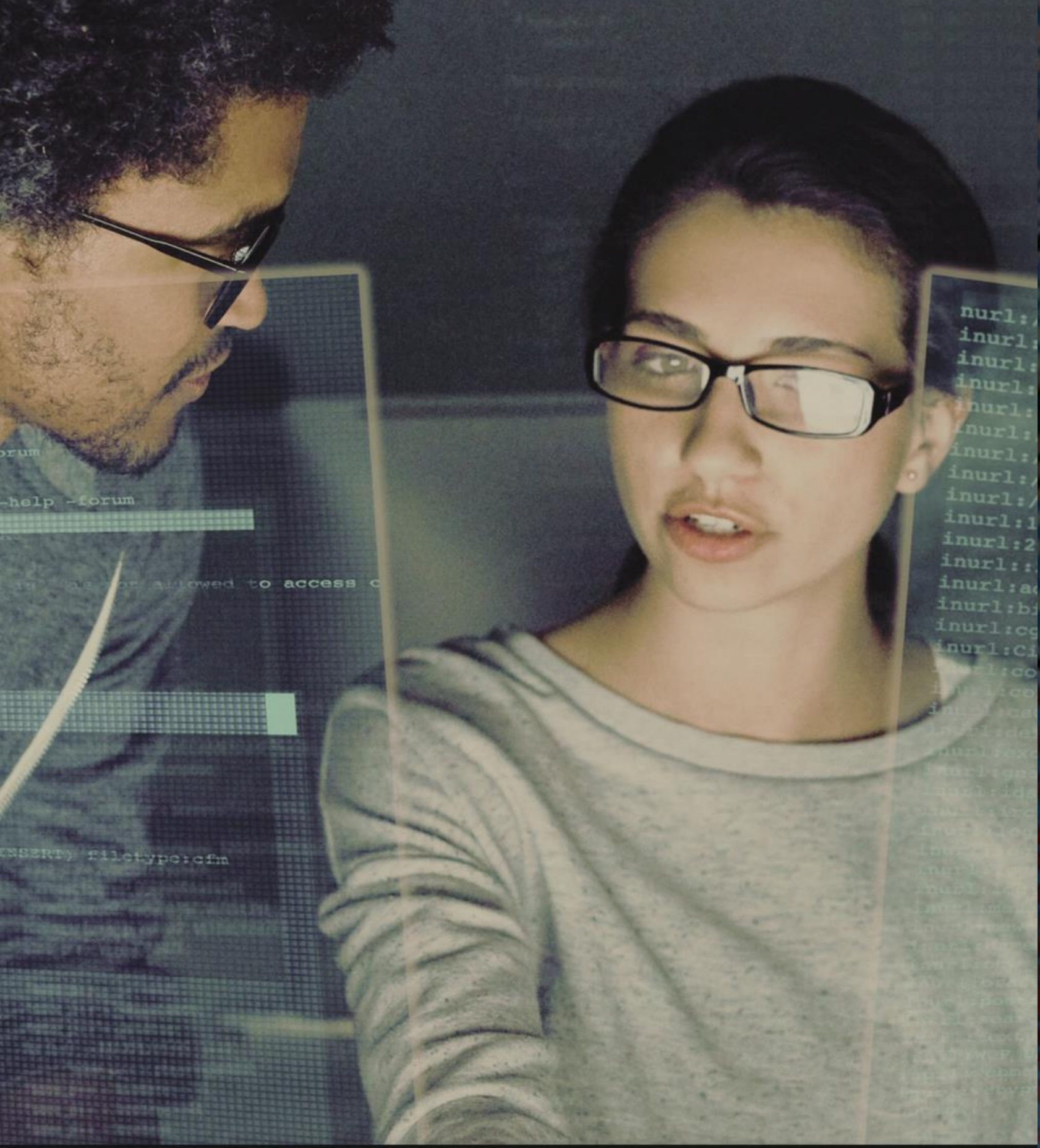
Pain Scale vs Treatments Required

Does the data correlate to expected values?



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Take aways

Assess clinician variability

Codesign and collaboration with clinical and informatics teams

The more clinical/operational governance the better quality

DO NOT CALL YOUR PROJECT A DATA QUALITY PROJECT!!

What is the reason your clinicians care about data quality?

Thank you!

**“The best way to predict
the future is to create it”
-Abraham Lincoln**

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