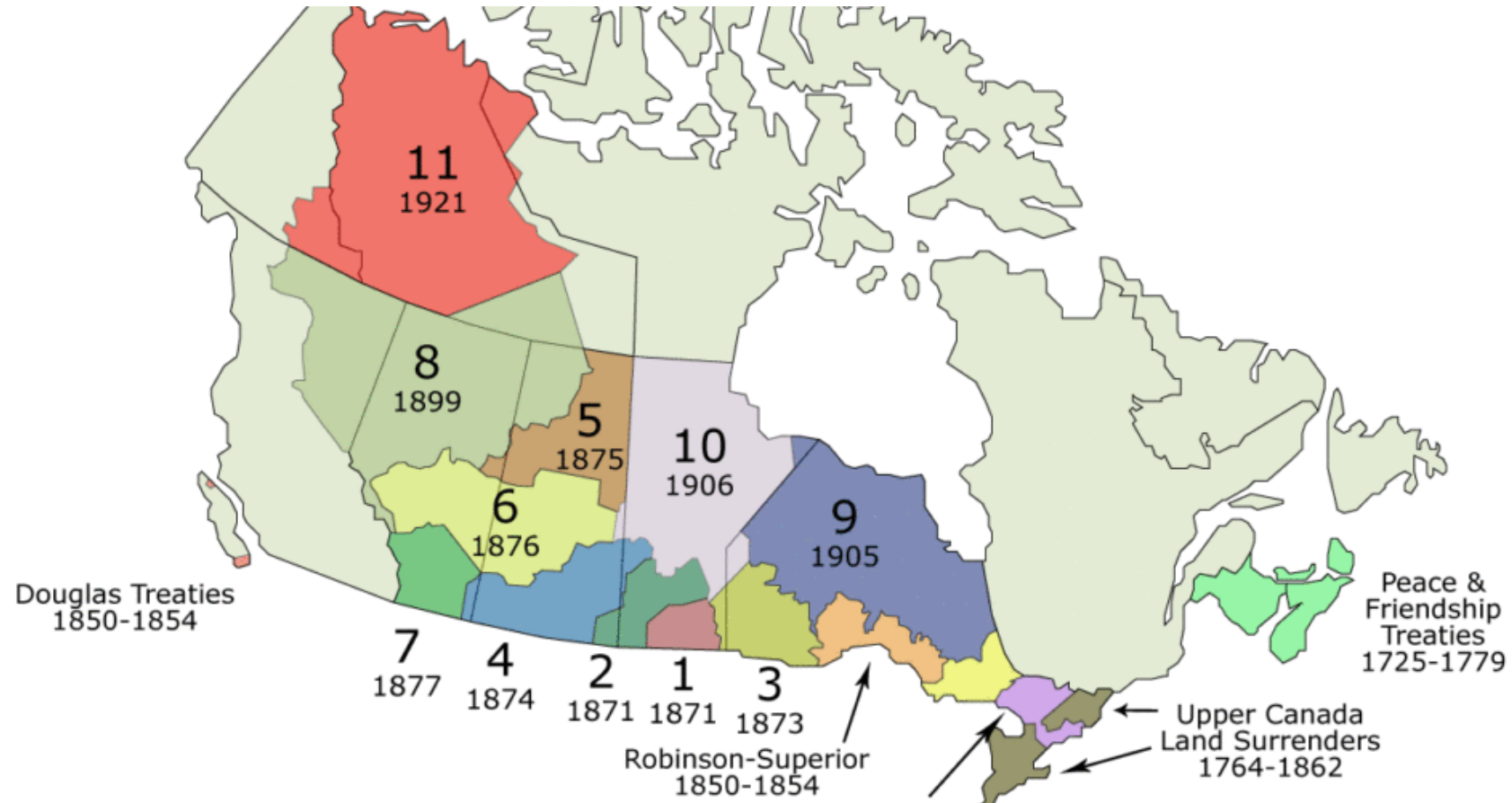# Today's Agenda

#1 Welcome and Land Acknowledgment

#2 Why Data 101?

#3 Data Literacy

#4 Data Quality

#5 Building a Data Culture

Land Acknowledgement

Why Data 101?

Unlock the Power of Data - 101

Where are we now?

The sector is made up of a number of agencies ranging in size and services delivered. There is also variation in the infrastructure of organizations including IT, digital, data collection and quality improvement

There are almost no mandated data collection tools in the sector. As a result, agencies often use their own data collection instruments. This means:

- We do not have consistent way to assess provincial performance or local performance for the purpose of accountability or public reporting.

- Agencies themselves often do not have reliable comparators when trying to understand their performance and opportunities for improvement

Decision support / data analytics and quality improvement (QI) are often not core functions of community agencies. This means it is often described as **"side of the desk"** work.

Where do we want to be?

- Data are being collected once and used multiple times
- Data are being collected primarily to deliver care and to measure client outcomes
- Data can be used to identify gaps in care and to guide quality improvement
- Performance measures are validly and reliably measuring important outcomes and processes
- Performance measures can be compared over time and across the system. Performance can be benchmarked either based on evidence or based on the performance of other organizations

Purpose Driven Measurement

Point of care measurement
- Clinical decision making
- Client engagement
- Quality improvement
- Accountability / transparency

Organizational measurement
- Data-driven decision making / planning
- Performance management / performance monitoring
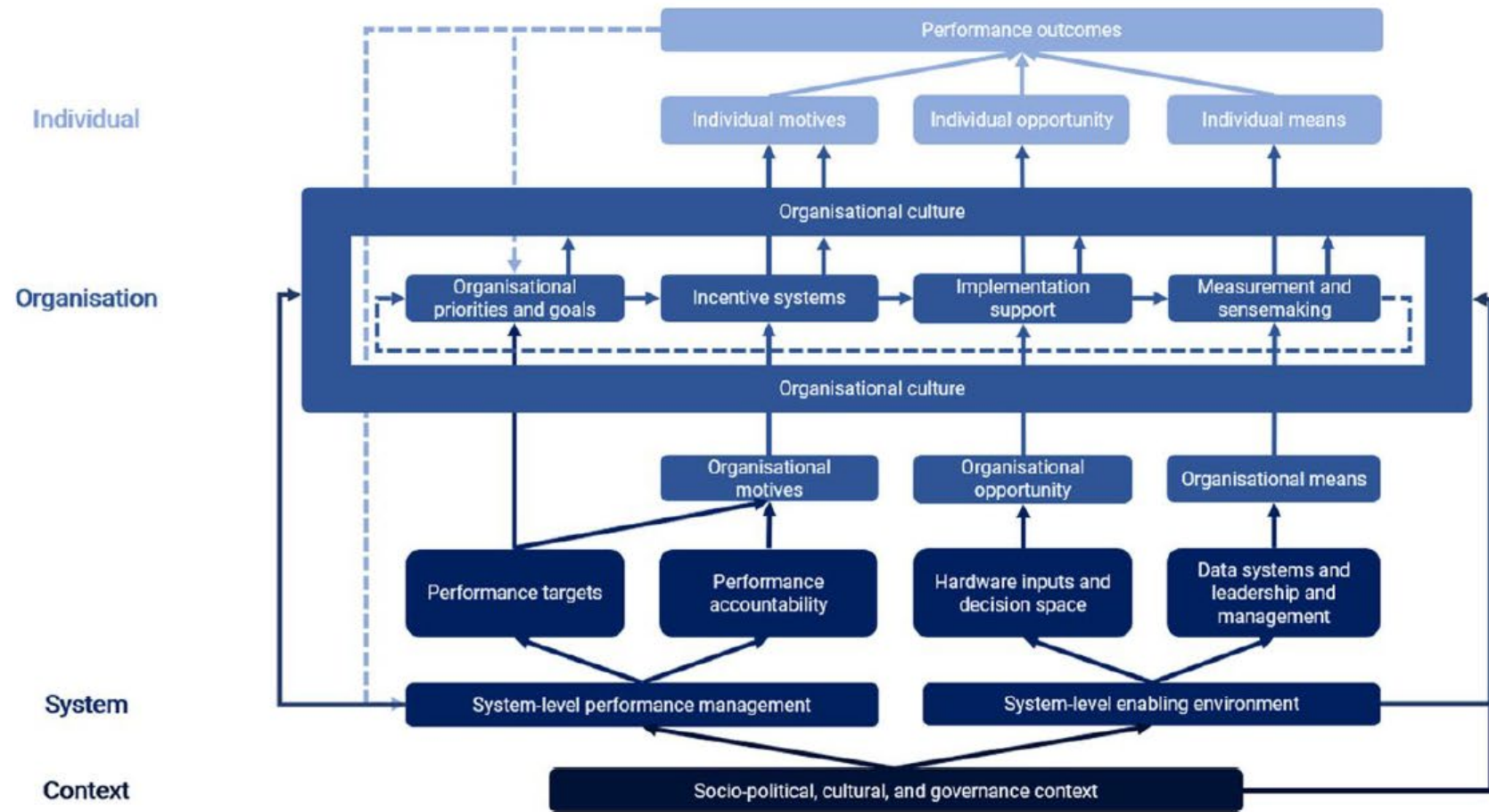- Quality improvement
- Accountability / transparency

System measurement
- Accountability / transparency
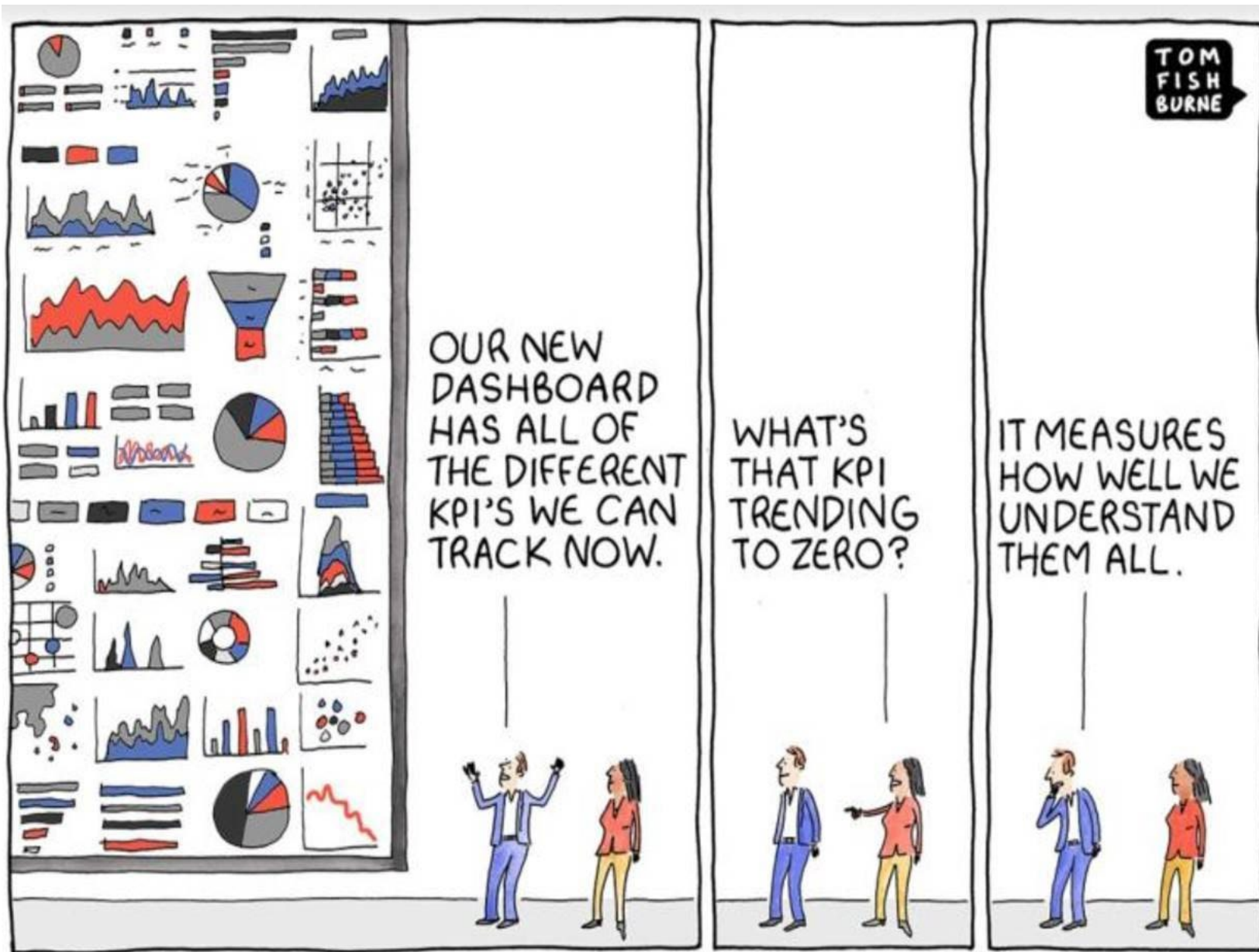- Performance management /performance monitoring

Where do we want to be?

Conceptual framework for performance management in complex adaptive health systems.

Tom Newton-Lewis et al. BMJ Glob Health 2021;6:e005582

Applying the Dosing Approach to Groups within an Organization – Data Literacy

Data Literacy Topic	Board	Sr. Mgmt	Directors of Quality/ Analytics	Clinical Staff	Middle Mgmt.	Front Line & Admin Staff	Decision Support	IT Team	QI Team
Data collection methods and techniques									
Understanding data types and formats									
Data cleaning and pre-processing									
Data quality assessment and improvement									
Data management systems									
Data reporting and visualization									
Data privacy/ethics, governance and data sharing									
Data analysis methods and statistics									
Data interpretation									
Data-driven decision making									
Communicating data insights									

Legend: Slight Dose | Minimal Dose | Moderate Dose | Maximum Dose

Note:
The intensity of the colour reflects the "dose" of data literacy knowledge and skills that would be administered to each respective group.
The row and column headings will change for each organization.

Adapted from: Lloyd, R. *Quality Health Care: A guide to using and developing indicators.* 2nd Edition, Jones and Bartlett Learning, 2018, page 360

Purpose and Objectives

This webinar series is intended to enhance the knowledge and skills of participants to:

- increase their understanding of data and data literacy

- advance their abilities to analyze and use data to improve the planning and delivery of mental health and addiction services (MHA).
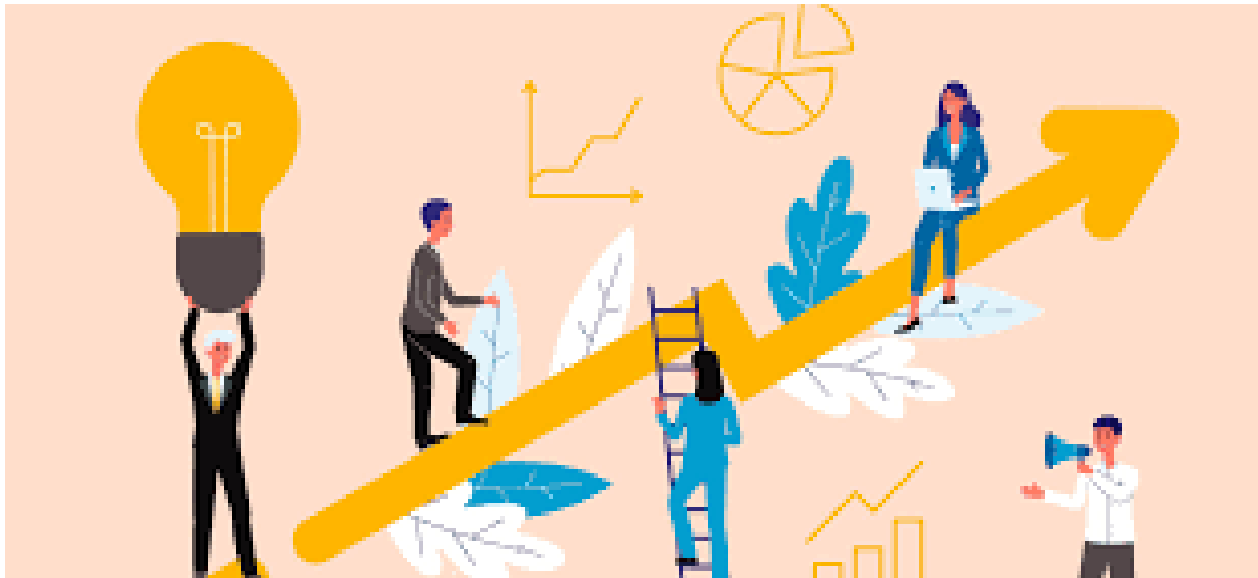
In today's webinar (the first in a series), participants can expect to:

- Learn about the 'building blocks' of data literacy
- Hear about an experience from a practical perspective demonstrating the value of data in elevating service delivery.

Quality Improvement and Data Consultations
Free customized coaching and support

Meet with an E-QIP QI and Data Coach for support on:

- ✓ Data and Quality Culture Assessment
- ✓ Quality Improvement Planning
- ✓ Uptake and Use of standardized tools
- ✓ Leveraging your data for QI activities
- ✓ Target Setting/Performance Measurement

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Presenters

- **Dr. Derek Chechak,** Director of Quality Improvement and Crisis Services, St. Leonard's Community Services, Brantford

- **Aaron Carubba,** Quality Assurance and Data Management Lead, Wayside House of Hamilton

Data Literacy

Unlock the Power of Data - 101

The Importance of Data Literacy

- Data literacy skills are designed to be used for application purposes: What are the data **telling** you? How are you **using** the data? What can be **done** with it?

- A critical skill for the 21st Century, as more and more people and organizations embrace data as a language to communicate with

- Use of data to inform local and regional planning, system efficiency and measurement-based care

- Use of data for integrated care, bundled service models and cross-sector planning (e.g., OHTs)

- Importance of an organizational culture that focuses on quality improvement and accountability

Remember, data is power

Data literacy is "the ability to collect, manage, evaluate, and apply data in a critical manner."
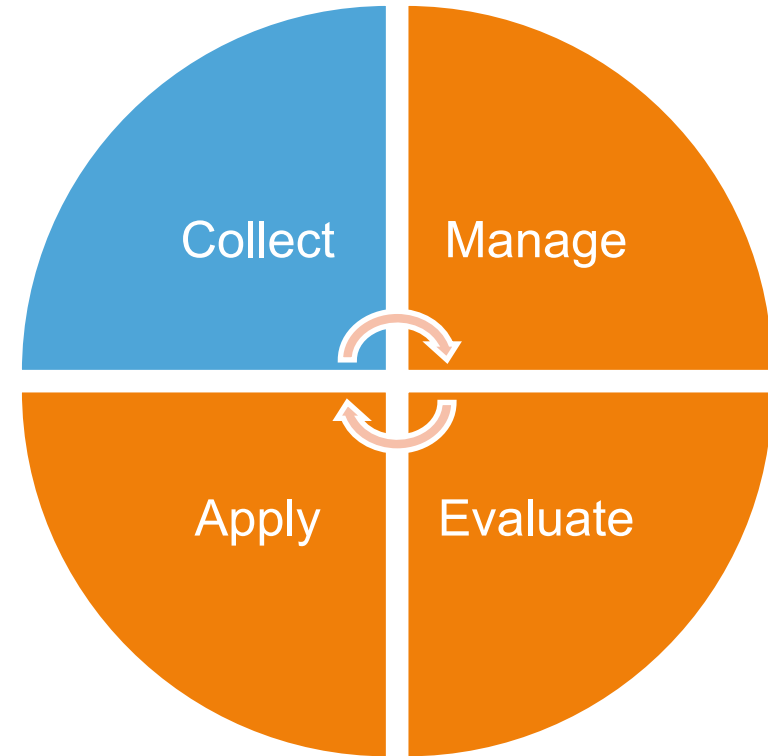
Collect

Manage

Evaluate

Apply

Ridsdale, C., Rothwell, J., Smit, M., Ali-Hassan, H., Bliemel, M., Irvine, D., Kelley, D., Matwin, S., & Wuetherick, B. (2015). *Strategies and best practices for data literacy education: Knowledge* synthesis report. Dalhousie University, Halifax, Nova Scotia. http://hdl.handle.net/10222/64578

Data Literacy

Component #1: Collect

- "That which is measured, improves."

- Collect information in a routine and organized manner

- Must be findable and usable when you need it

Data Sources

- Accountability Agreements, data for accreditation requirements and compliance reporting

- Sector specific indicators, especially when paired with or validated by another data source, such as stakeholder feedback

- Stakeholder feedback from Board of Directors, senior executives, staff, clients, families, caregivers, and community partners

- Administrative data and surveys of client and staff experience

- Standardized tools (e.g., OPOC, OCAN, InterRAI)

- Client demographic information and standardized reports from clinical management systems, and community census data

Data and Indicator Selection

When selecting data to collect and indicators to track:

- Consider what is **important** to clients and to staff
- Measure what you plan to measure (**validity**), but sometimes you may compromise and use data that are already collected. ***This is a good plan!***
- For quality improvement, **reliability** and **ease of calculation** may be more important than peer comparison
- Indicators should have a clear **direction** for improvement
- Data need to be **timely**
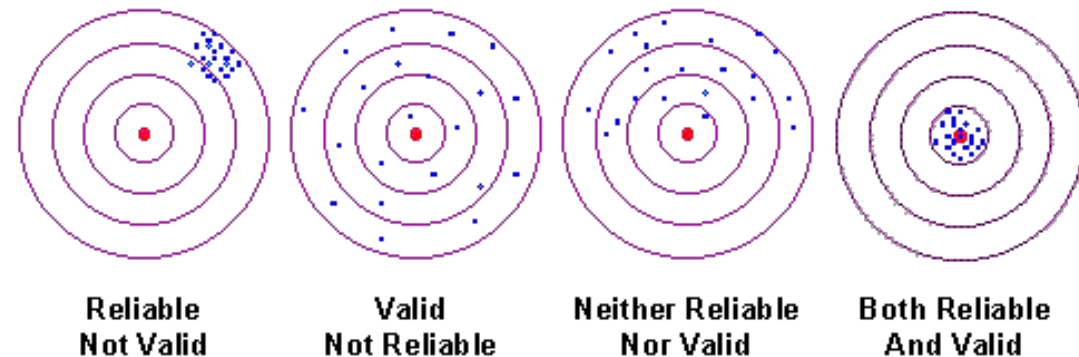- Indicators need to be **actionable**

Reliable Not Valid   Valid Not Reliable   Neither Reliable Nor Valid   Both Reliable And Valid

Image source: https://conjointly.com/kb/reliability-and-validity/

Data Collection Practices

- Determine what data you need to answer the questions you are asking
    - What is the target population?
    - What is the unit of observation?
    - What is the time frame?
    - What level of quality do you need in the data?
- Determine where you will find your data, and what its original purpose was

Writing a Data Collection Plan

- Prepare a plan that covers which data sources will be used and all the steps to acquire the data
    - Novel data collection or using existing data?
    - Where are the data stored?
    - Is special permission required to access the data?
    - Is a negotiation with the data owner or custodian required?
    - Who at your organization can assist with retrieval?
    - Will there be costs for storage or manipulation?
- If you are collecting new data, how will you keep it safe after you collected it?
    - Storage
    - Protection from unauthorized access

Data Literacy

Component #2: Manage

- Look at the quality of data and how this can be improved by data collection

- Ability to transform, summarize, or repurpose data for different audiences and purposes

- Create visualizations and outputs that are accessible to different audiences
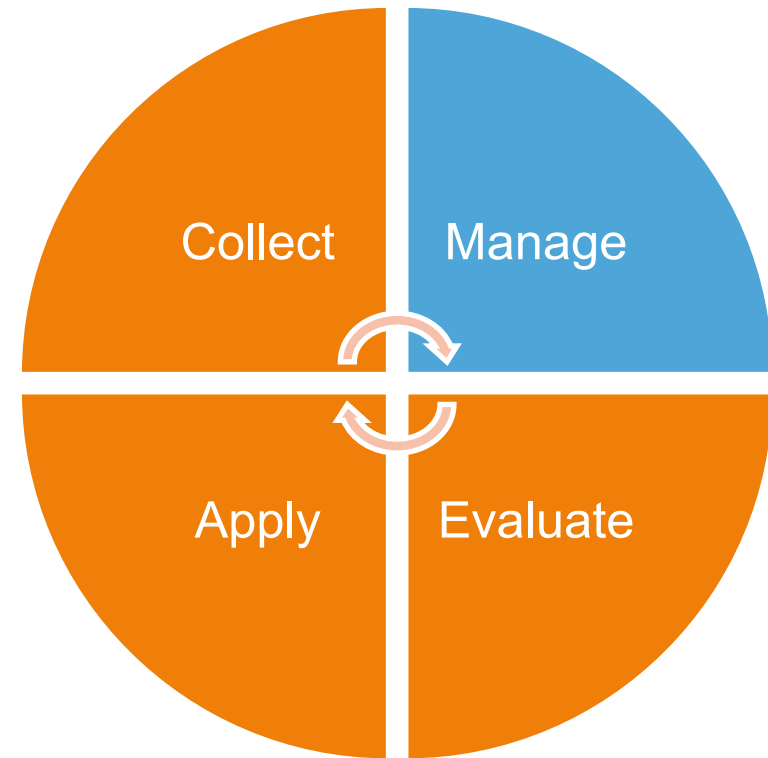
Using Data Quality Practices

- Quality assurance practices can be applied to both the data producer and the data consumer

- These practices help organizations increase data literacy by embedding these practices in a "business-as-usual" fashion

- Data quality frameworks are recommended starting points to determine what to focus on.

→ *See the* **CIHI Information Quality Framework**

Data Quality Practices (cont.)

- Follow data standards (technical and clinical) to ensure consistent data is captured.

- Follow vendor specifications to ensure that the data that is captured and submitted complies with standards.

- Ensure that all data providers are adequately trained to capture data accurately and enter it according to standards.

- Use periodic audits to validate data as it comes in and identify if certain staff could benefit from further data literacy education.

Five Dimensions of Data Quality

Accuracy

Timeliness

Comparability

Usability

Relevance

Dimension 1: Accuracy

- Accuracy is what most people think of when they think of data quality.

- Accuracy refers to how well information in or derived from the data holding reflects the reality it was designed to measure.

- When this occurs, the information or data can be considered accurate or reliable.

- Consider coverage, non-response, and measurement error when determining accuracy.

Dimension 2: Timeliness

- Timeliness refers primarily to how up to date the data is at the time of release.

- The currency of the data is measured in terms of the gap between the end of the reference period to which the data pertains and the date on which the data becomes available.

- Timeliness is closely associated with relevance: if this delay is too great, the data may no longer be relevant for our needs.

Dimension 3: Comparability

- Comparability is defined as the extent to which data are consistent over time and use standard conventions (such as data elements or reporting periods).

- Comparability facilitates the understanding, interpretation and maintenance of the data.

- Same or similar populations of reference are necessary when making comparisons between data.

- Databases that are comparable will use the same data definitions, collect similar types of data and have the potential for record linkage with other similar databases.

Dimension 4: Usability

- Usability reflects the ease with which data may be understood and accessed.

- If data or other information products are difficult to use, they can be rendered worthless no matter how accurate, timely, comparable or relevant they may be.

- Data must be in a readily accessible user-friendly format.

- If users are not aware data exists, it will not be used!

Dimension 5: Relevance

- Relevance reflects the degree to which a data holding meets the current and potential needs of users.

- Maintaining relevance requires staying connected with key users and stakeholders.

- Relevance is concerned with whether the available data informs the issues most important to users.

- In addition to ensuring that its data is accurate, timely, comparable and usable, data must continuously reflect the most important and pressing information needs.

Data Literacy

Component #3: Evaluate

- Use technical skills to draw insights from the data that has been collected and presented

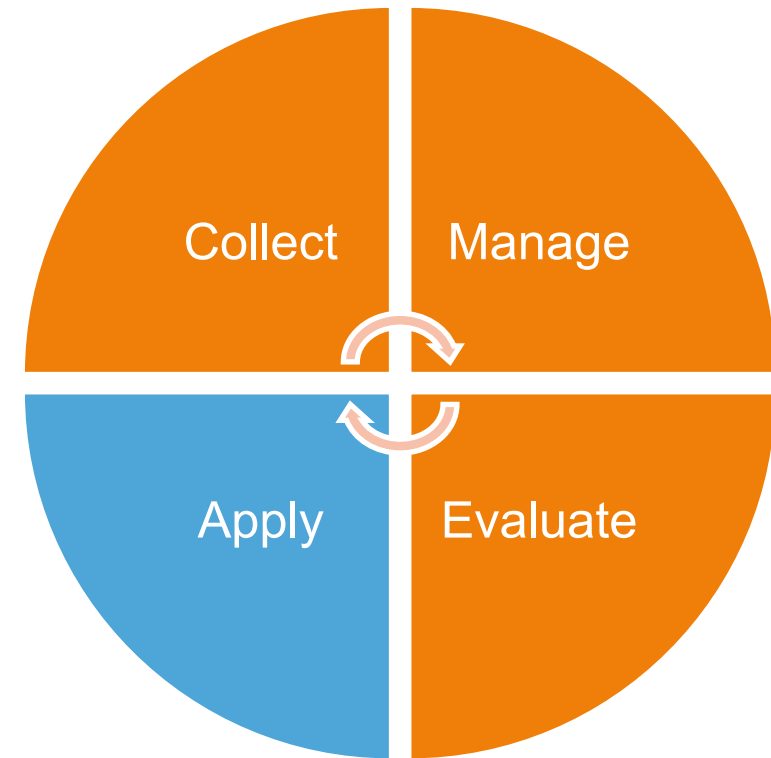- Ability to translate the data into information that can be used to inform decisions
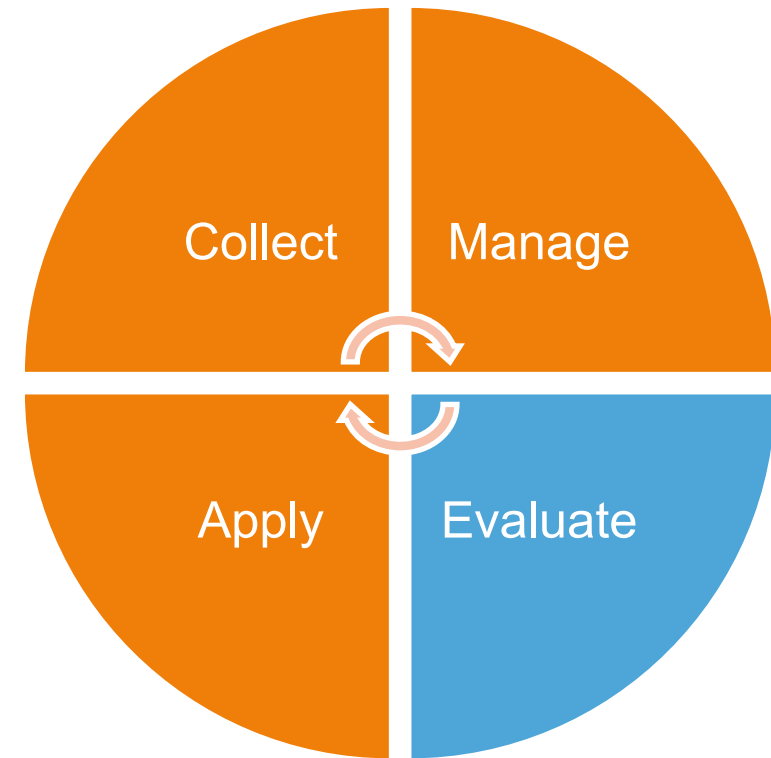
Next in the Series

Data Literacy

Component #4: Apply

- Ability to examine data that has been presented with a healthy skepticism, and use it to inform data-driven decision making

- Begins to get at the "so what?" question and how we will use the information

Next in the Series

Building Data Literacy & Culture at Wayside House of Hamilton

Unlock the Power of Data - 101

About Wayside

QI
staff

Unlock the Power of Data - 101

Areas of Focus
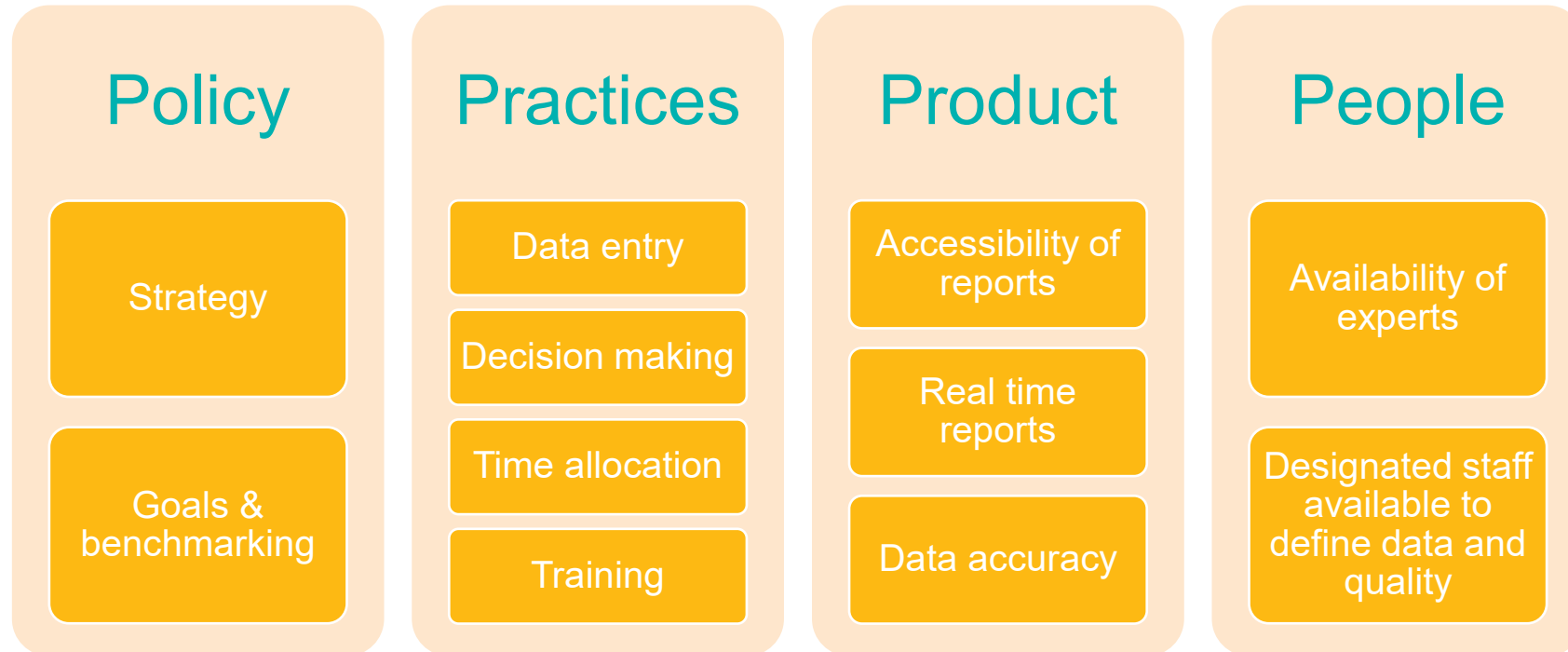
Identifying the problem

What to measure and how to measure it

Presenting results and "real-time training"

Sustaining change and building culture

Data Culture Assessment Tool

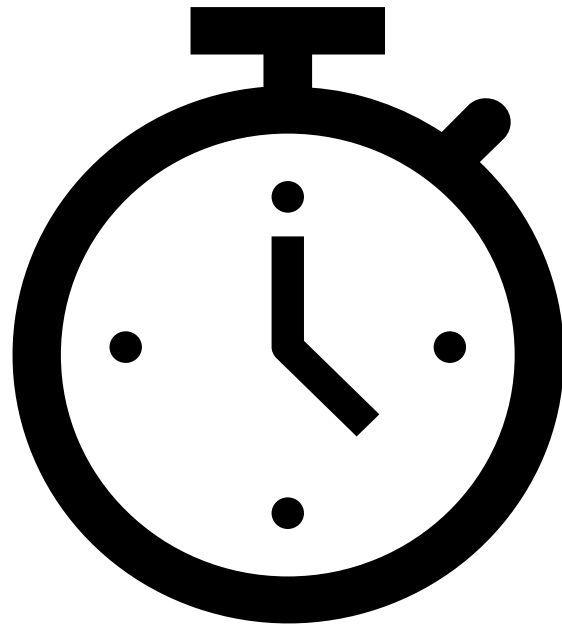| Policy	Practices	Product	People
Strategy	Data entry	Accessibility of reports	Availability of experts
Goals & benchmarking	Decision making	Real time reports	Designated staff available to define data and quality
	Time allocation	Data accuracy	
	Training		

Waitlist Management

Discharge Rate

Identifying the problem

*"So how long **is** the waitlist?"*

"About two months..."

Interpersonal

conflicts with staff — 4

conflict with co-clients — 1 5 5 3

influence of family and/or friends

Program Structure

insufficient clinical attention — 2 5

unable or unwilling to follow program rules — 5 3 5 3

expectations not met — 3

Personal Reasons

Inappropriate stage of change — 1 2 1 5 3 2 / 4 2 4 3 5

personal treatment goals achieved — 4 3 4 2 1 4

mismatch of **mental health** concerns and clinical capacity — 5 2 2 1 2 1 2 2

mismatch of **physical health** concerns and program capacity

External Events

personal emergency

economic reasons — 5 5

employment — 4

Program Environment

discomfort with living setting, e.g. overcrowding, diet — 3 1

location of program

social environment — 4
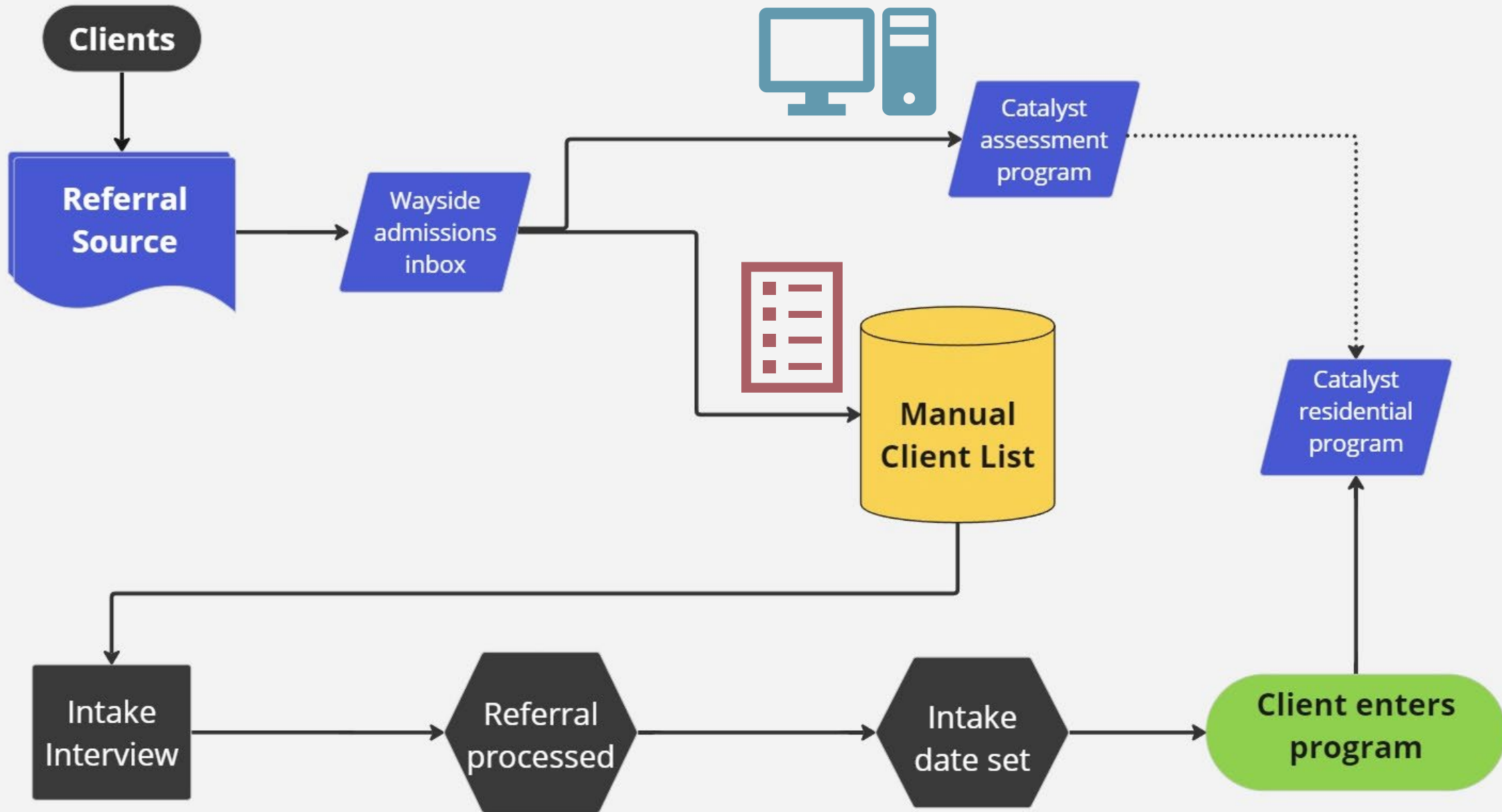
Inappropriate Referrals
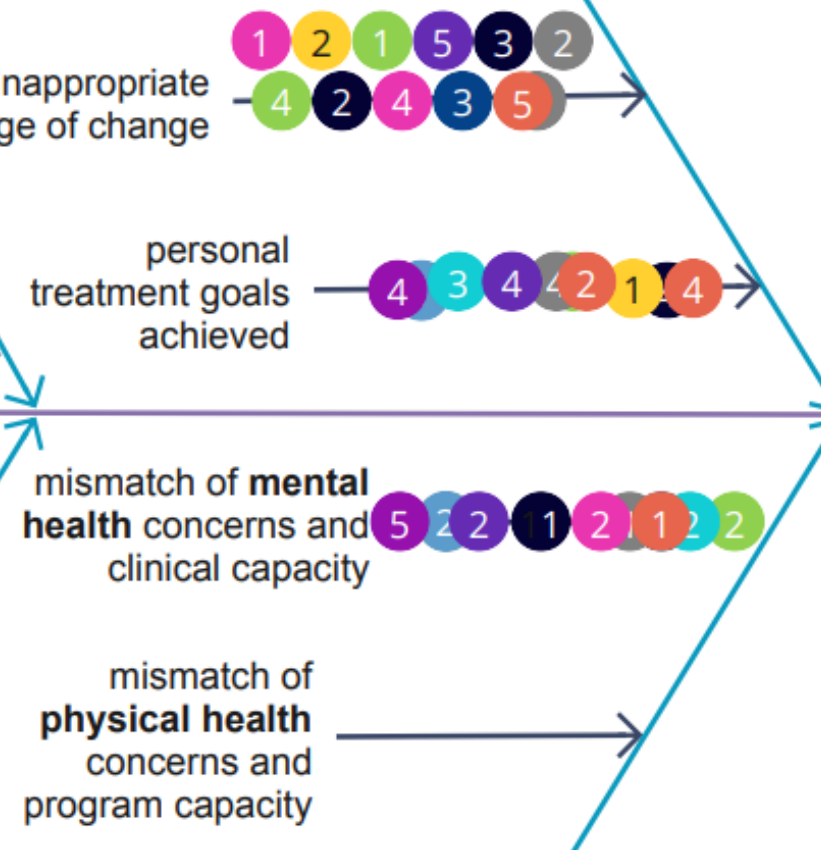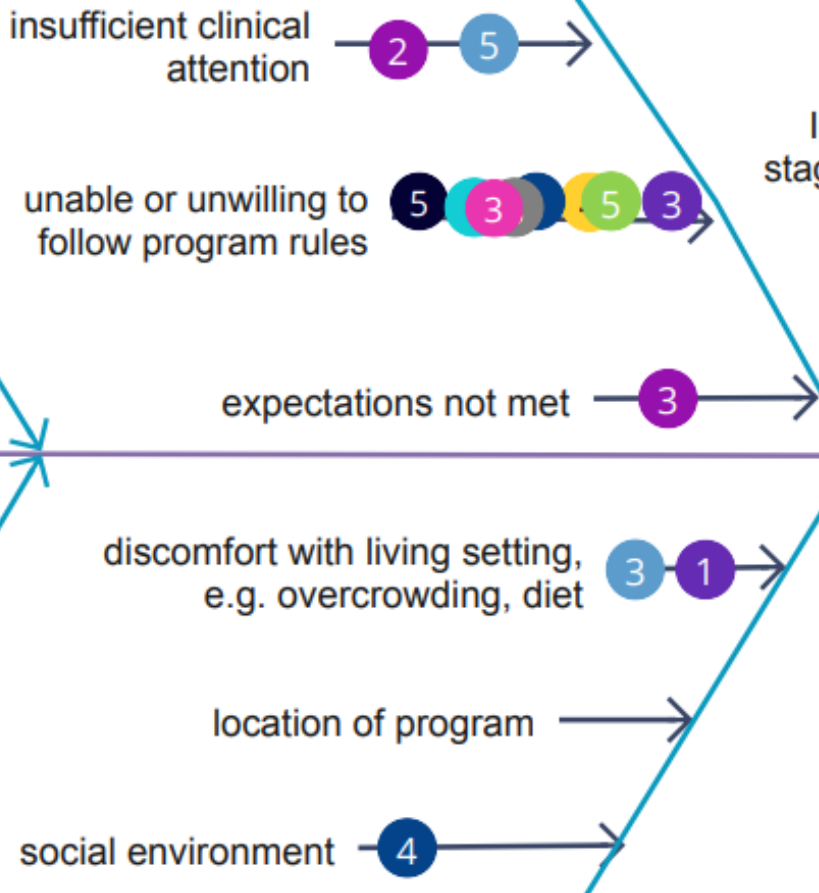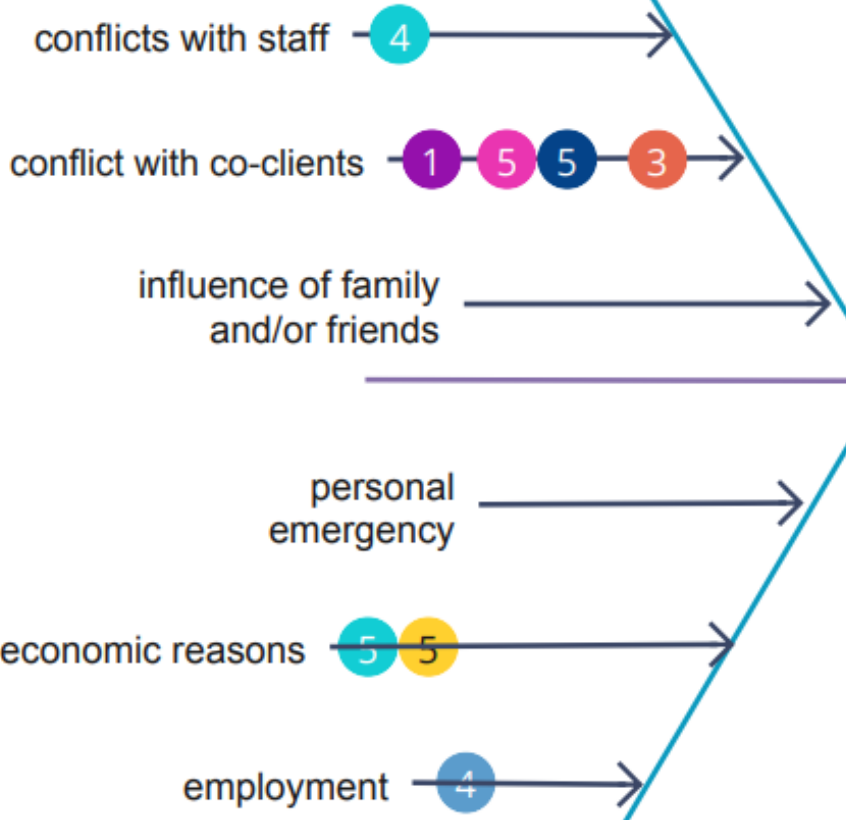
What to measure, and how

Not all problems are equally quantifiable

Consider process: how is data collected and by whom?

Consider **uncertainty**, before and after the data are collected
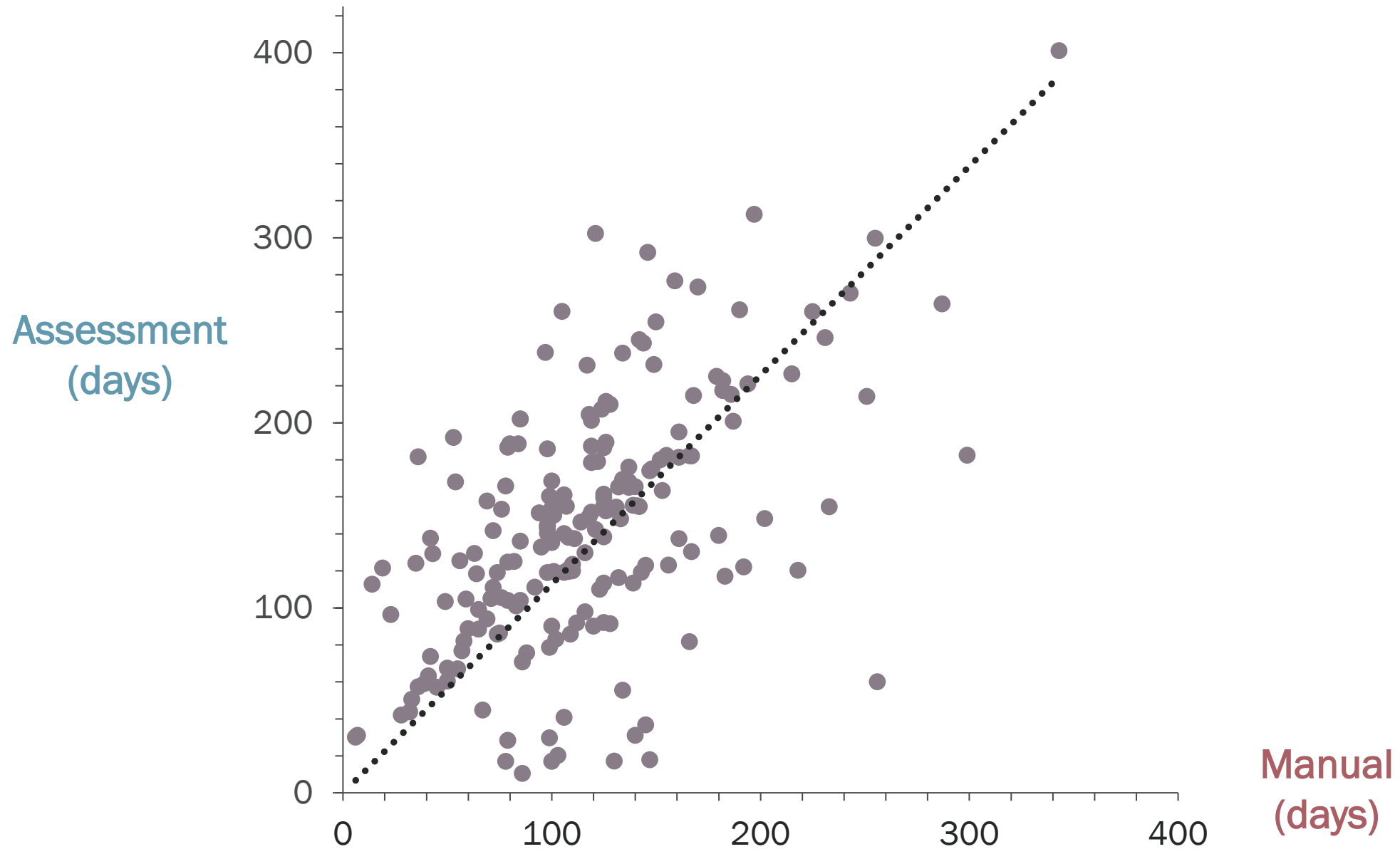
Presenting results & "real-time training"

Not all results are equally relevant

Introduce concepts as needed, not all at once

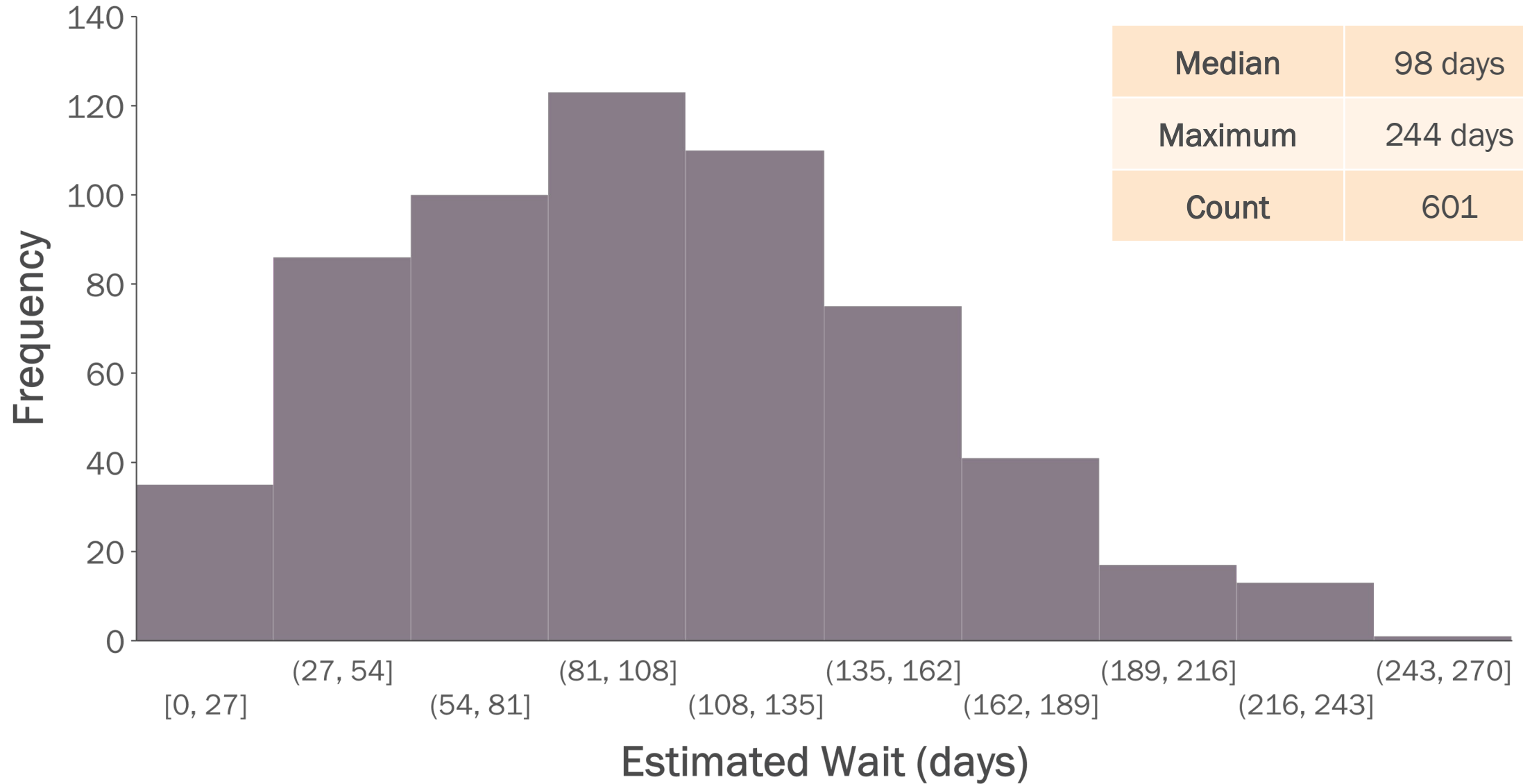Results should be actionable

Too much...

Just right?

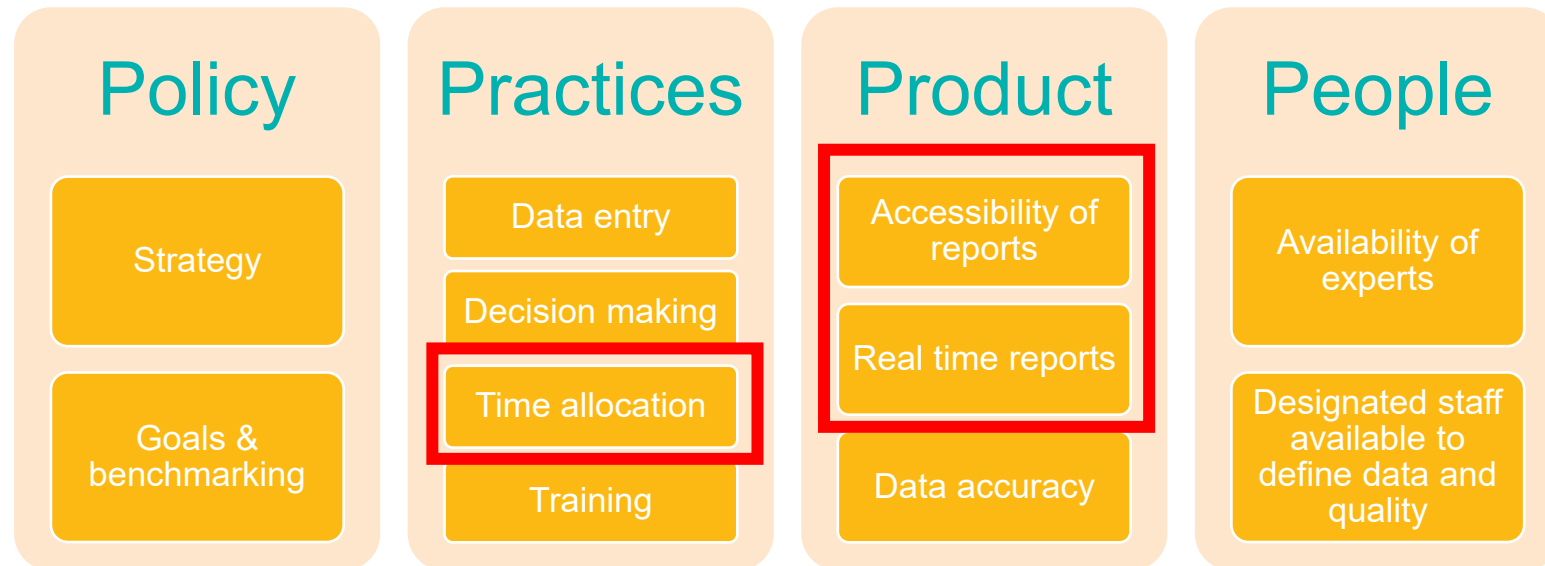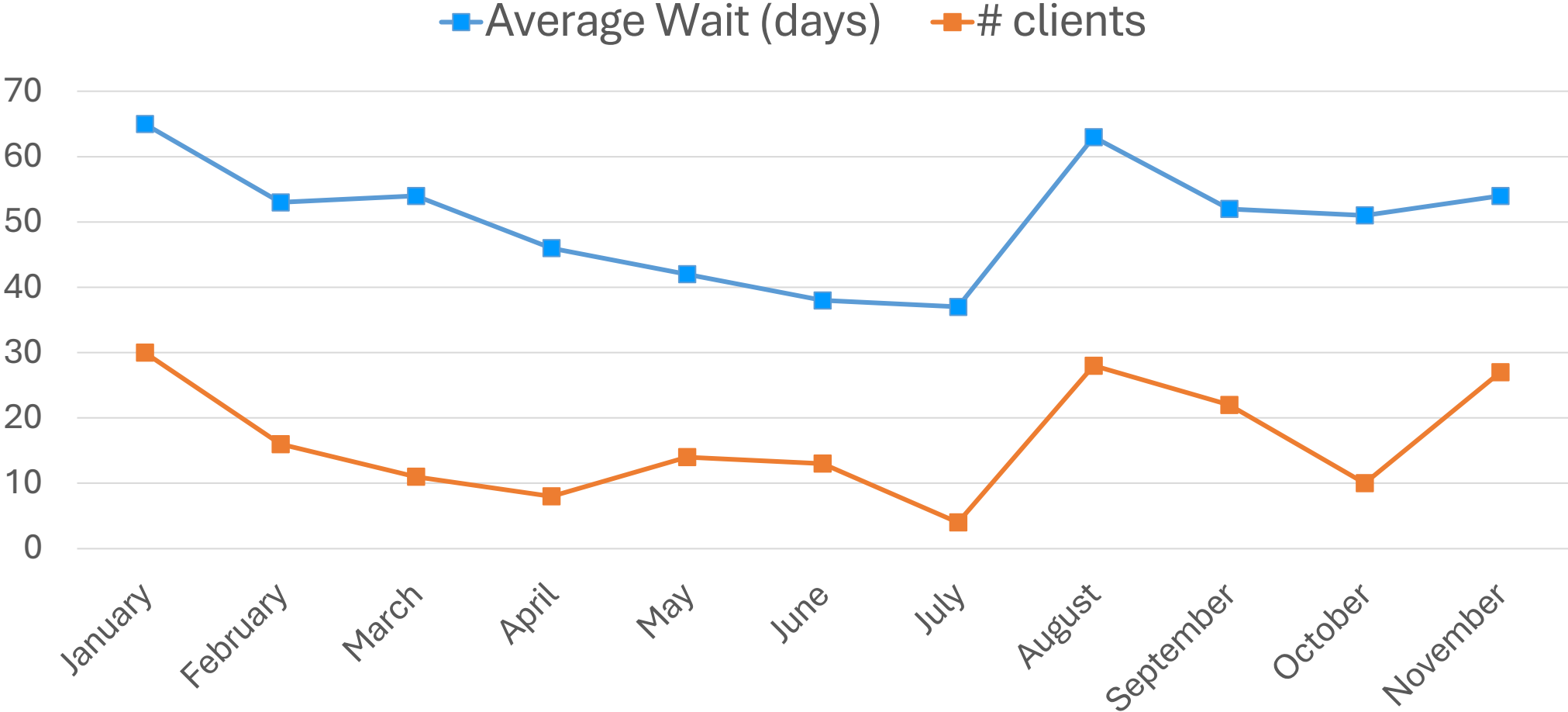|	
Median	98 days
Maximum	244 days
Count	601

Sustaining change

Integrate reporting into everyday routines

Build "self-sustaining" systems to reduce workload

Policy	Practices	Product	People
Strategy	Data entry	Accessibility of reports	Availability of experts
Goals & benchmarking	Decision making	Real time reports	Designated staff available to define data and quality
	Time allocation	Data accuracy	
	Training		

Sustaining change

Questions and Curiosities

Degani
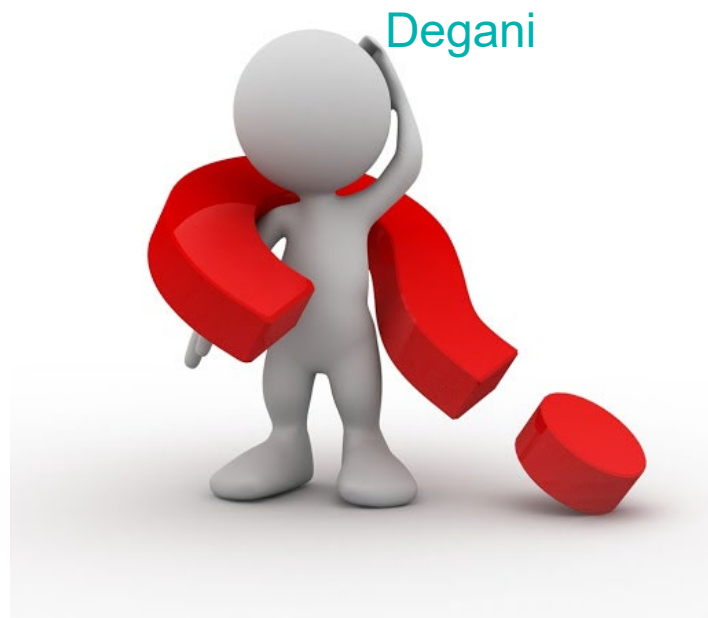
Please provide your feedback!

Unlock the Power of Data

Elevate your Data Literacy with the Excellence Through Quality Improvement's Webinar Series

*Next in the Series***

Webinar #2
The Data Journey Continues

CLICK HERE TO REGISTER

We are excited to launch the second webinar for E-QIP's Data Literacy series. Join us as we continue the journey into the world of data literacy, tailored specifically for community Mental Health and Addiction (MHA) service providers. This webinar series is meticulously crafted to 'E-QIP' you to harness the full power of data, to make informed decisions and optimize service delivery.

Webinar #2: Unlocking the Power of Data 102 –The Data Journey Continues
Date: February 1st, 2024
Time: 1:00pm

In this session, participants can expect to take a deeper dive into the world of Data Management, focusing on collecting data to elevate and build upon your data literacy skills. Participants will also hear about the practical use of measurement-based care for clinical decision making.

This webinar will feature guest presentations by *Dr. Derek Chechak (he/him) of St. Leonard's Community Services and Dr. Laura Mills (she/her) of Pine River Institute.*

Do not miss this opportunity to Unlock the Power of Data in Data 201! Advance your data literacy journey and discover new possibilities in mental health and addictions data management and analysis.

Governance and Leadership Training

Booking into 2024!
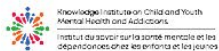
Our governance and leadership training on quality improvement (QI) and measurement is delivered to senior leaders and/or the board of directors of an organization. We provide a general overview of QI, data-driven decision making and how these areas can support organizational and strategic priorities. We focus on the role of senior leaders in championing, guiding and building a quality culture. The training is customized to your organization's needs based on your objectives and where you are in QI culture and in performance management

To schedule a training session or If you would like more information about Governance and Leadership training options, please contact

The E-QIP team quality@e-qip.ca

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Foundations to QI (IDEAS) e-Course

- ✓ Self-guided curriculum based on the Model for Improvement
- ✓ Incorporates a variety of learning tools including an MHA-based case study, videos, learning activities and knowledge checks
- ✓ Document your learnings in your personal course workbook
- ✓ 8-12 hours to complete
- ✓ Easy to enroll
- ✓ FREE!

CLICK HERE TO REGISTER!