COMMUNIMETRICS DATA ROUNDTABLE

April 27, 2017

Pathway

- Hello!
- Update on Communimetrics on Wikipedia initiative (☹)
- Quick Discussion of Communimetric Fundamentals
- Jesse Troy, Ph.D., Community Data Roundtable's Chief Data Officer
  - The CDR Needs Improved/Needs Worsening outcomes metric - 25 minutes.
- Alison Krompf M.A., Quality Manager at Northwestern Counseling Services (Vermont)
  - Severity Measure, and CANS Value Metric

Communimetric Data Roundtables

- Purpose: To support a community of professionals and scholars doing work in communimetrics.
  - Share what you're doing, see what others are doing.
  - Identify best practices for data management
  - Learn about technology options for warehousing, analytics, ETL, data entry, etc.
  - Discuss emergent issues in communimetric data
  - Collaborate on communimetric data problems
- Chair:
  - Dan Warner Ph.D. Executive Director of Community Data Roundtable

Who is on this call

- We invite anyone who does work with communimetric data. This includes researchers, engineers, and professionals. (Currently 60 people on our list)
- When speaking please state your name clearly, so people can look up your background on the <u>phone call roster</u>.
- The link for the roster is in the call <u>chat window</u>.
  - If you are prompted to ask for permission, just do so, and I will approve momentarily.

A few notes on propriety

- Science proceeds through sharing amongst experts who challenge each other, and build on each other's work.
- We all have more to gain through sharing our work, in order to:
  - Understand our field better and deeper
  - Growing those who understand and do this work, and thus spread its legitimacy through society.
- We need an environment where people can share openly and feel
  - (a) their ideas will not be stolen, and
  - (b) they will not be judged or abused.

- All sessions are recorded.
- Please don't allow yourself to be self conscious.
- Please get involved and ask hard questions.
- Please don't be ad hominim

During and AFTER our meeting

- If you have a question, please use the chat feature to write it down – that will make it easier for everyone to see the question.

- We will send out an evaluation after each phone call, where you will not only evaluate the quality of the session, but also will be asked to add any questions or comments on the presentation – allowing for a deeper analysis and reflection on what was seen.

WIKIPEDIA PROJECT

Communimetrics needs a Wikipedia entry

- Wikipedia has still not accepted communimetrics as having sufficient merit to be an entry.

- I wrote them a letter where I argued against this.

- They have not responded, and it's been about 3 weeks…
  - Biggest concerns is we need more people who are not John Lyons posting about it.

- I think it is important to note that the communimetrics field is certainly valuated in the $10s of Millions. People on this call are using on it, and making presentations on it. Please share those, to substantiate the field.

- Contact me if you need help accessing the page.

CMX BASICS

Communimetrics Fundamentals

- A <u>common, structured language</u> for professional communication, provides an entry for quantitative analysis and outcomes.
- Attends to <u>actions</u> done in a workspace, in order to make claims about the realities of the workplace.
- <u>Checklist of tasks</u> done in a field.
- Wholistic measure - Tasks can be psychological, risk oriented, functional, social determinant, family structural, etc.
- Allows operationalizing to formal work rules in a system (i.e. regulations, laws, criteria …)
- Non-balanced, non-normed measures
- Not built in a lab and then brought to the world. Instead boot-strapped up from real world, and then formalized in a "lab."
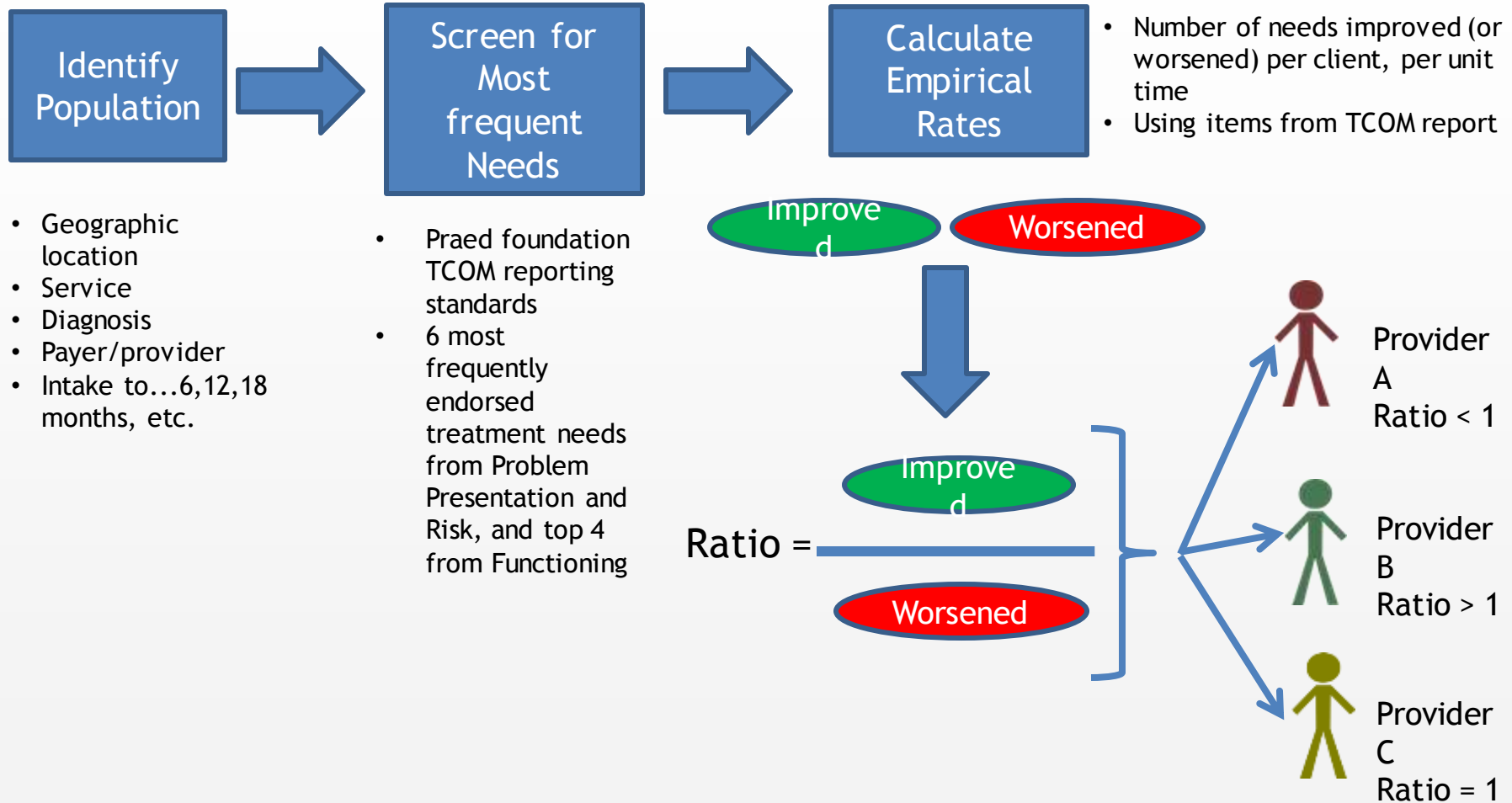
JESSE TROY PH.D. --

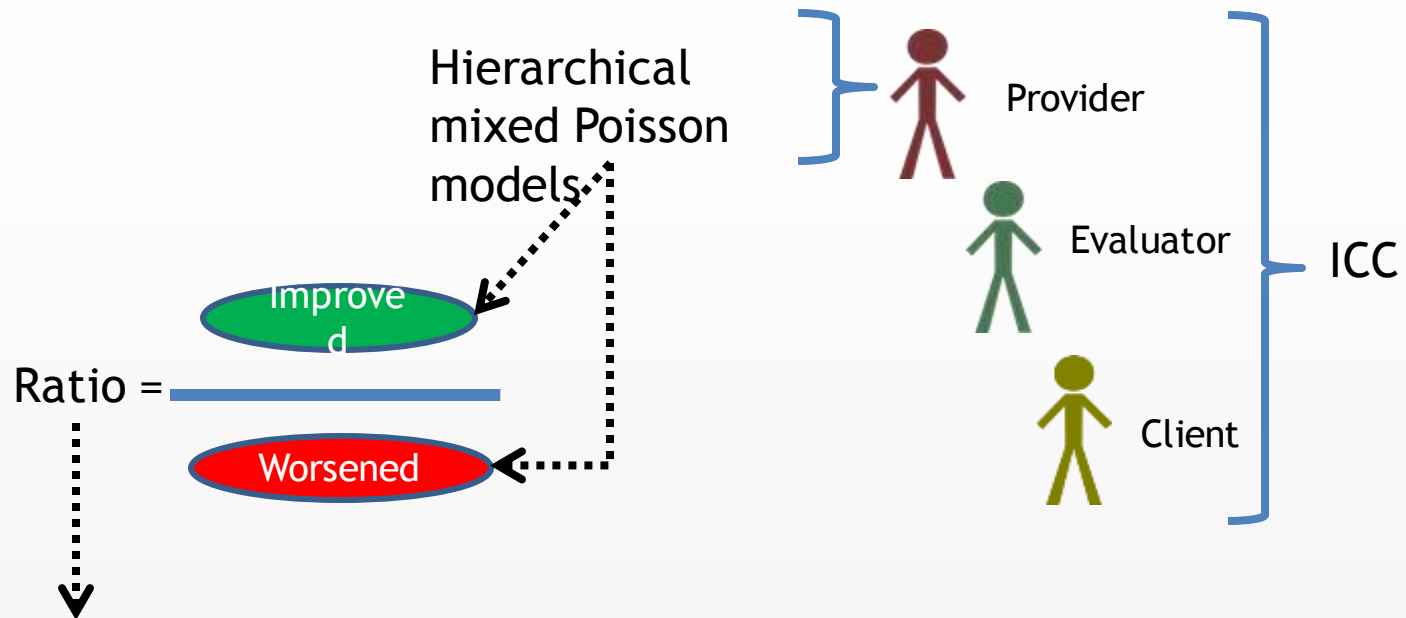# NEEDS IMPROVED /NEEDS WORSENING RATIO

Objectives for a CANS Outcomes Metric

- Identify a single outcomes metric that is:
  - Easily interpretable
  - Facilitates monitoring of change over time
  - Informative for different audiences
    - Provider, MCO, state, counties, parents, etc.
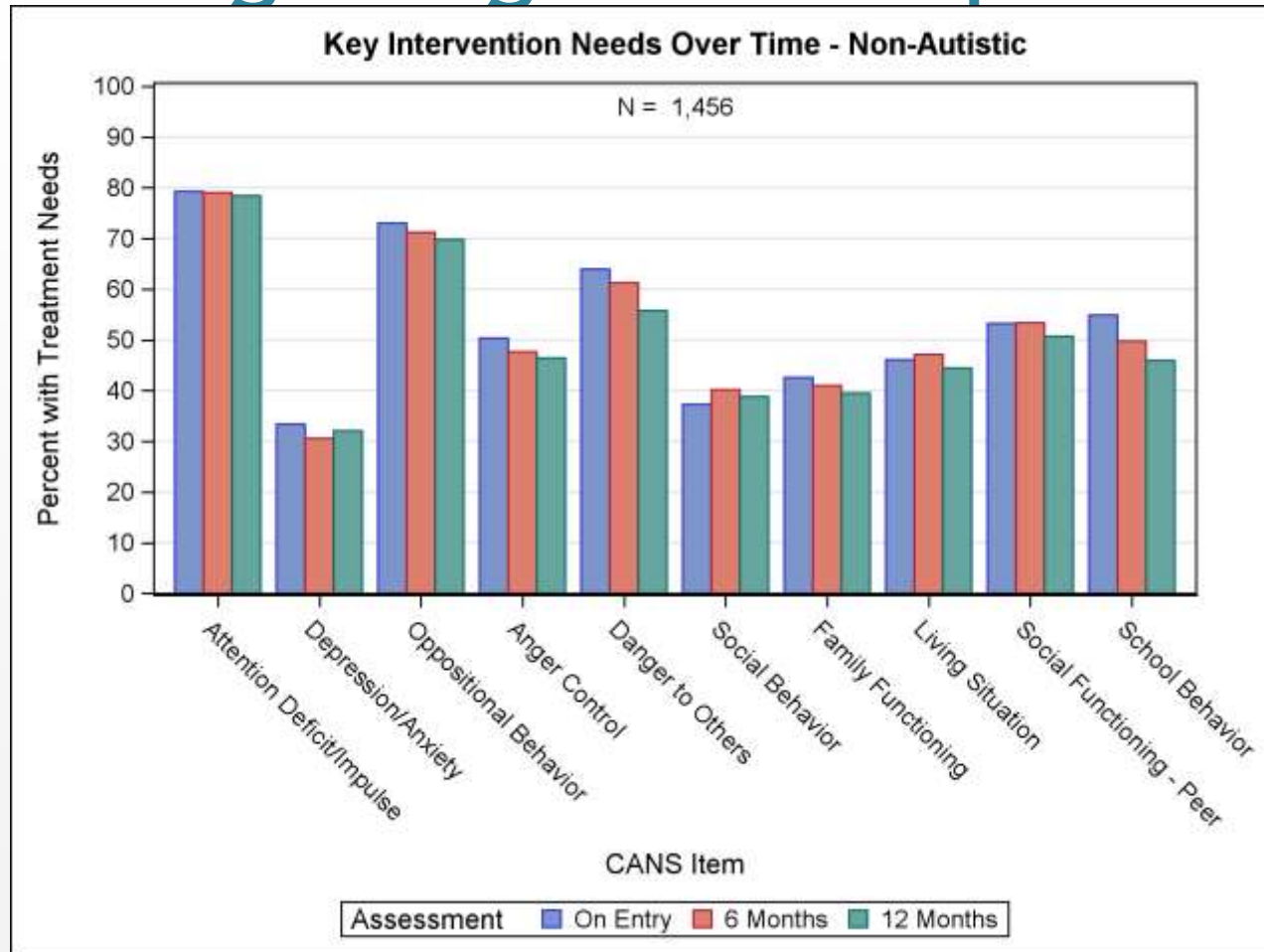
Monitoring Outcomes using the CANS

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Identify Population

→

Screen for Most frequent Needs

→

Calculate Empirical Rates

- Number of needs improved (or worsened) per client, per unit time
- Using items from TCOM report

- Geographic location
- Service
- Diagnosis
- Payer/provider
- Intake to...6,12,18 months, etc.

- Praed foundation TCOM reporting standards
- 6 most frequently endorsed treatment needs from Problem Presentation and Risk, and top 4 from Functioning

Improved   Worsened

$$\text{Ratio} = \frac{\text{Improved}}{\text{Worsened}}$$

Provider A
Ratio < 1

Provider B
Ratio > 1

Provider C
Ratio = 1

Methods for Inference

Hierarchical mixed Poisson models

Improved

Ratio = ─────────

Worsened

- Ratio of predicted rates
- Bootstrap CI

Provider

Evaluator

ICC

Client

Screening using TCOM Report

Provider Rate Comparison
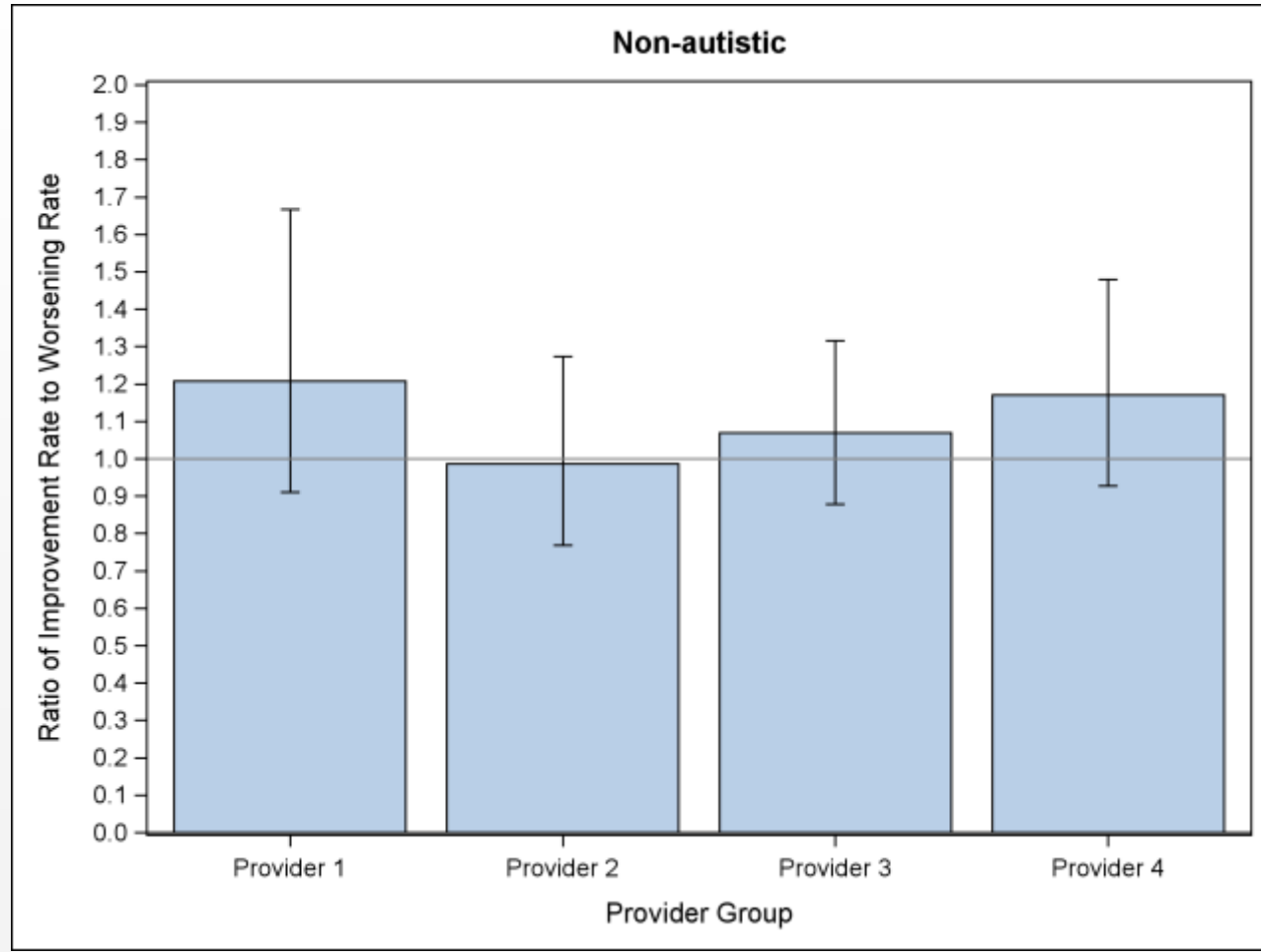
Sources of Variation
in Improvement and Worsening

Level of Hierarchy	ICC (Needs Improved)	ICC (Needs Worsened)
Client	23.7%	25.9%
Evaluator	8.4%	7.6%
Provider	2.3%	0.0%
Total	34.4%	33.5%

Next Steps

- Refine the outcome
  - Include strengths and caregiver items in rates
  - Clients who stay the same (good or bad)
- Explaining residual variation
  - Other important components of the hierarchy
    - Social determinants or surrogates
    - Zip code, source of payment for services, other indicators from the MCO

THANK YOU!

- Next time hoping to discuss Power BI uses for communimetric data manipulation, display and analysis.
- You'll receive an evaluation in your email to both comment on this program, and to add helpful comments on the presented research
- For more information please email dwarner@communitydataroundtable.org