

# They Measured Happily Ever After: Findings Stories in Data & Metrics

Preconference-  
International  
Metropolis  
Conference

24 June 2019

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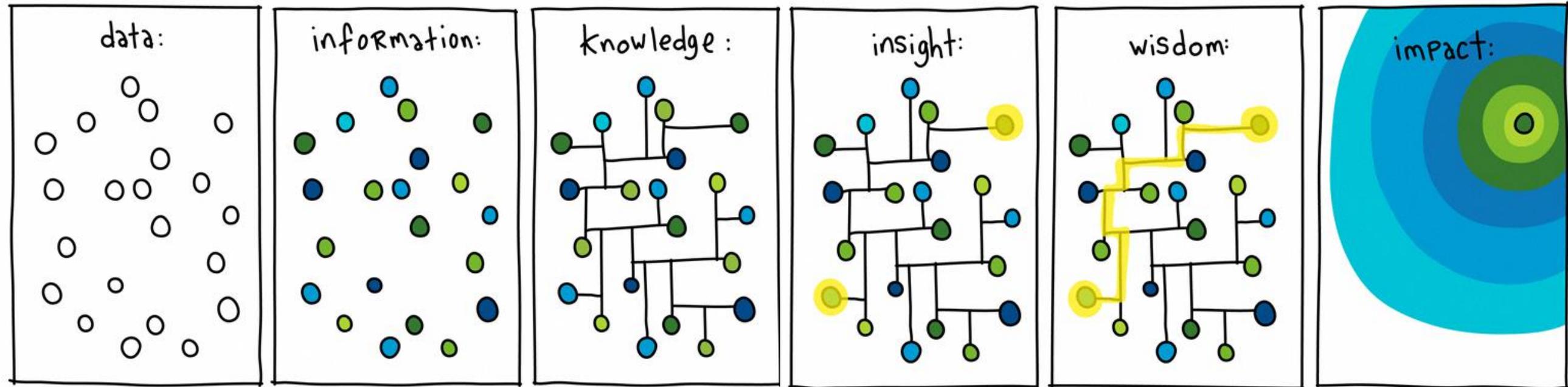
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# AGENDA



- **Measurement basics**
- **Measuring impacts**
- **Building sustainability**
- **Case Study**

# Metrics: Finding Meaning in Data



@gapingvoid

# History of Measurement



## INPUTS:

What did we invest?

5 staff provide employment counselling



## OUTPUTS:

How much did we do?

200 immigrants visited the program

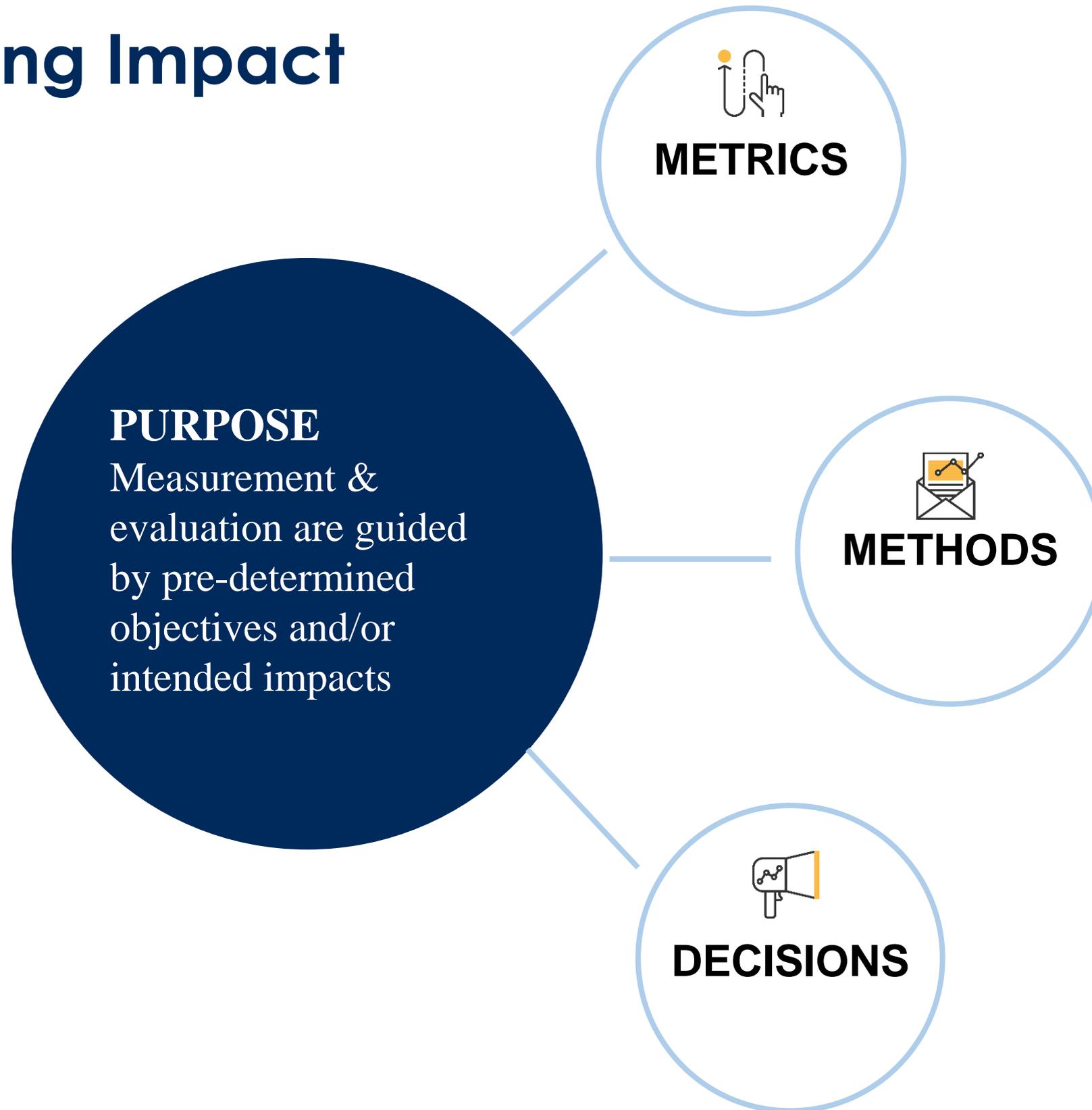


## IMPACTS:

What were the impacts of the programs, policies, or services?

**25% higher employment rate within 6 months compared to [...]**

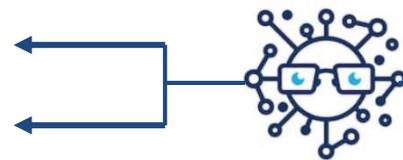
# Measuring Impact



# Metrics Development: A Collaborative Approach

## Engage staff, partners, & clients in metrics development to...

- Strengthen metric relevance to client experiences and front line work
- Improve data collection
- Build sustainability through education
- Determine scope of available data
- Understand what is realistic/possible



include data 'persons' and/or IT 'persons' when possible

# Metrics: Dimensions of Performance



## ACCESS:

Who is (not) accessing services and programs?

- % immigrants accessing support employment services within 6 months of arrival



## DELIVERY:

How is the service/program/policy delivered?

- Satisfaction rates
- Differences in implementation by immigrant group
- Performance metrics



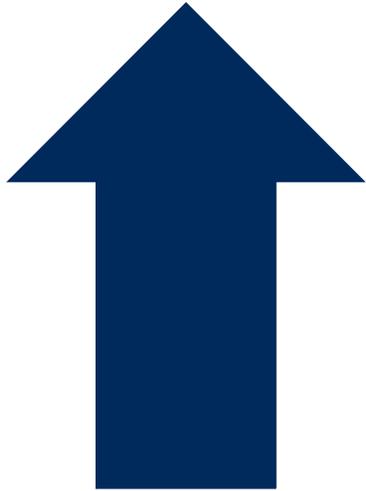
## OUTCOMES:

What are outcomes of immigrants/refugees/immigrants?

- % of refugees are unemployed
- % employment 6 months after service (compared to...)

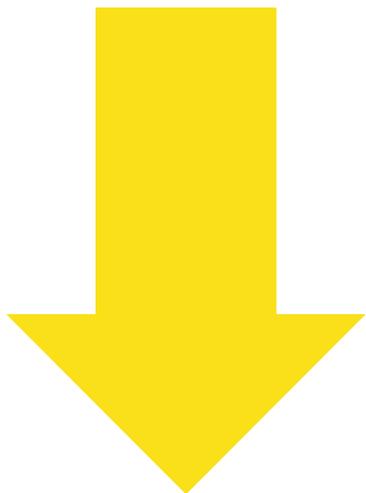
# Note : Measuring 'satisfaction'

- Metrics historically part of health(care) landscape
- Over-reliance on 'Client/Patient Satisfaction' to measure client/patient experience  
(Fooks, Obarski, Hale, & Hylmar, 2015)
- What we've learned from measuring 'satisfaction':



## Opportunities

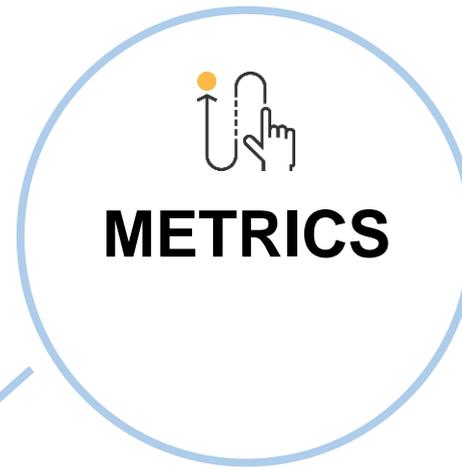
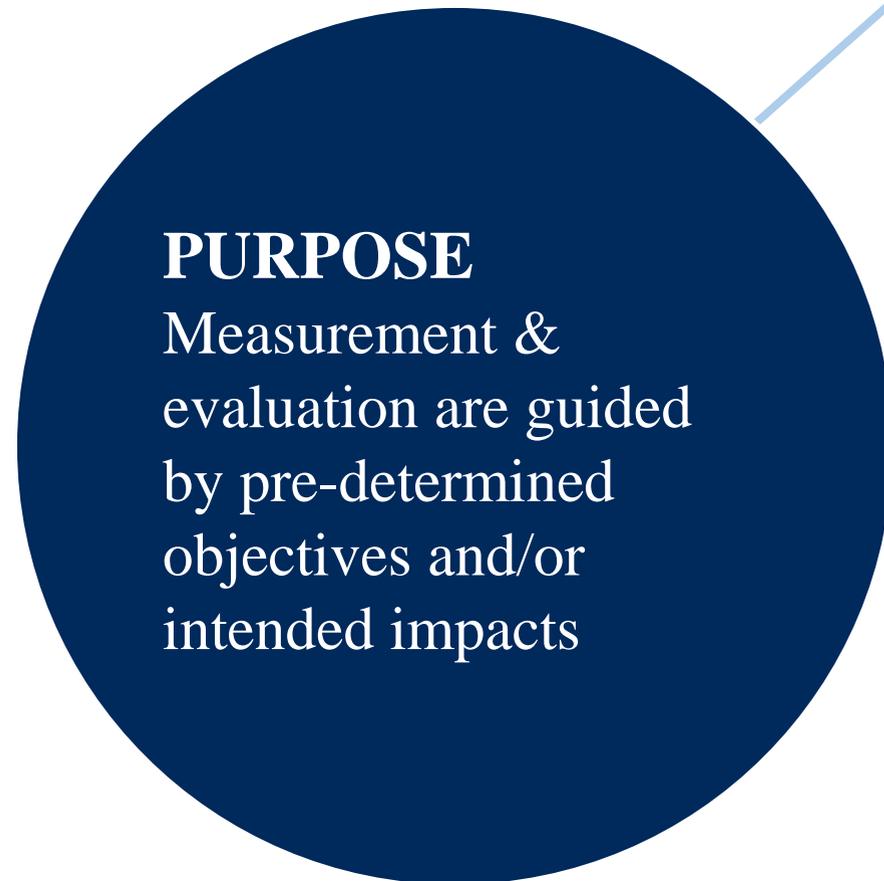
- Low-hanging fruit
- Identifies concerns
- Builds accountability
- Serves as engagement tool



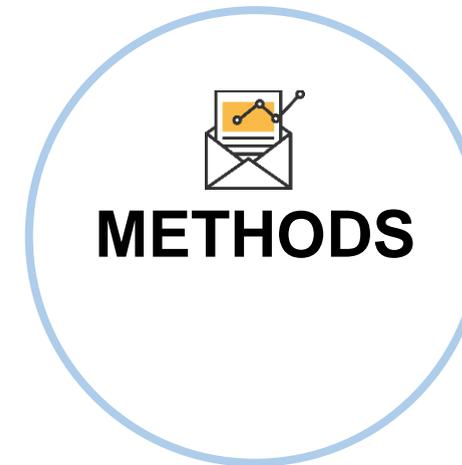
## Limitations

- Doesn't allow measuring program for impacts
- Raises data quality concerns
- Presents barriers to participation
- Poorly defined

# Measuring Impact



- Engage & consult those who deliver and receive services/programs
- Articulate metrics 'type'
- Reflect: Are you reviewing your processes in addition to impact?



# Methods

Limits of access to data: “the availability of hard data sources from which to measure different systems of services is highly uneven or in many instances unavailable” (Shields, Drolet, & Valenzuela, 2016, p. 3)

## Organizational level

- Embed data collection into the organizational operations
- Invest in:
  - Building demographic data about clients and staff
  - Linking outcomes to individual-level variables
- Leverage existing data (e.g. mandated reporting)

## Community level

- Leverage organizational-level data collection
- Invest in standardized cross-sectoral (high quality) data collection
- Explore existing administrative databases- e.g. Institute for the Clinical and Evaluative Sciences

IMP: Collecting data necessitates understanding privacy legislation & ‘data de-identification’ principles

# Child and youth mental health and addictions care by immigration category (2012-2014)



Research article | Open Access | Open Peer Review

## Describing the linkages of the immigration, refugees and citizenship Canada permanent resident data and vital statistics death registry to Ontario's administrative health database

Maria Chiu, Michael Lebenbaum, Kelvin Lam, Nelson Chong, Mahmoud Azimae, Karey Iron, Doug Manuel and Astrid Guttmann 

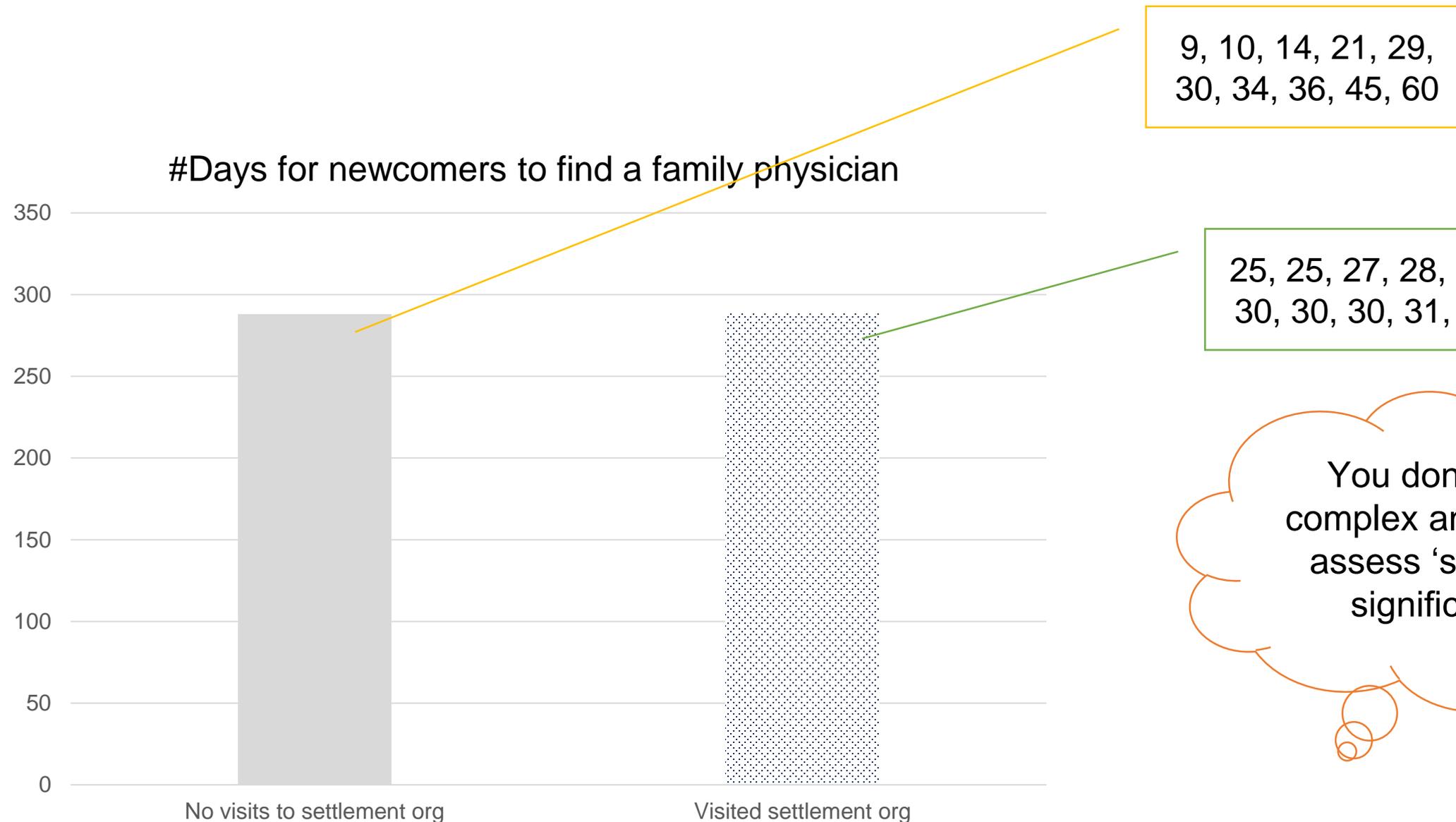
*BMC Medical Informatics and Decision Making* BMC series – open, inclusive and trusted 2016 16:135

<https://doi.org/10.1186/s12911-016-0375-3> | © The Author(s). 2016

Received: 22 April 2016 | Accepted: 13 October 2016 | Published: 21 October 2016

# Methods- Measurement and Analysis

- Move beyond descriptive data when comparing groups
  - Averages can be misleading



9, 10, 14, 21, 29,  
30, 34, 36, 45, 60

25, 25, 27, 28, 29,  
30, 30, 30, 31, 33

You don't need  
complex analyses to  
assess 'statistical  
significance'

# Methods- Measurement and Analysis

- Establish 'causality'- i.e. that improvements or changes can be directly attributed to your program/service/policy
  - 3 Approaches (Sept, Naylor, & Weston, 2011)

Experimental Design

Quasi-experimental Design

Non-experimental Design

Case study:

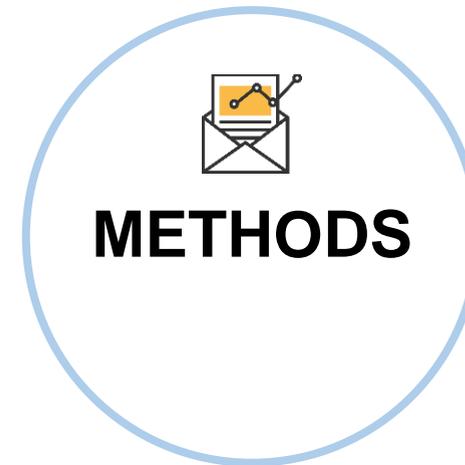
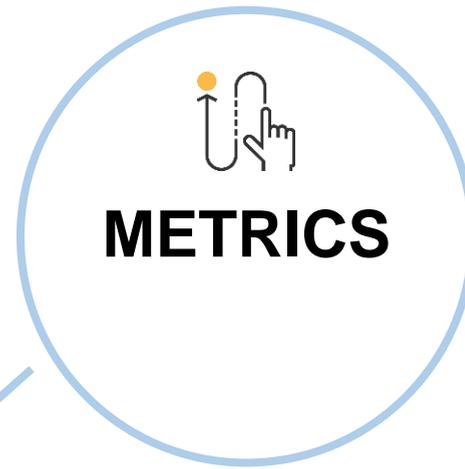
**Evaluate impact of new mental health support service/policy on new immigrants' well being**

Approach	Descriptors	Pros/Cons	EXAMPLE
<b>Experimental Design</b>	<p>Individuals are randomly placed into groups</p> <p>Gold standard in establishing causality</p>	<p><u>Pros:</u> Reliability &amp; quality of evidence</p> <p><u>Cons:</u> Difficulty in ensuring total random assignment (cost, ethics, logistics)</p>	<p><u>Randomly assign to:</u></p> <ul style="list-style-type: none"> <li>• ‘old’ mental health support</li> <li>• ‘new’ mental health support</li> <li>• ‘no’ mental health support for 6 months</li> </ul>

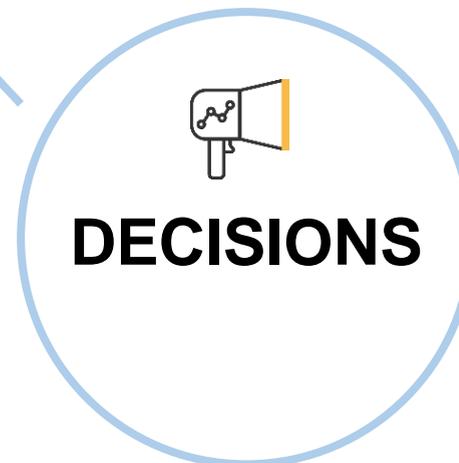
Approach	Descriptors	Pros/Cons	EXAMPLE
<b>Quasi-experimental Designs</b>	<p>Most common in the ‘real world’</p> <p>Little control over assigning individuals into different groups</p> <p>Ensure comparison group is as similar as possible</p>	<p><u>Pros:</u> Adaptability</p> <p><u>Cons:</u> Requires vigilance in set-up and analysis</p> <p>Less reliable evidence</p>	<p><u>Use pre-existing groups:</u> Compare well-being of group receiving mental health support to those on waitlist</p> <p><u>Compare geographical regions:</u> Compare new immigrants in City X with mental health policy to <i>comparable</i> City Y with no mental health policy</p>

Approach	Descriptors	Pros/Cons	EXAMPLE
<b>Non- experimental Designs</b>	<p>Tracks changes but does not include comparison groups</p>	<p><u>Pros:</u> Practical, relatively straightforward</p> <p><u>Cons:</u> Cannot strongly trace changes to the service/program/policy</p>	<p><u>Before and after:</u> Compare well being of group receiving support before and after program/policy</p> <p><u>Time series:</u> Compare well being before, halfway through, and after support program</p>

# Measuring Impact



- Decide on data elements & source
- Identify methods of measurement
- Reflect: Can you add a qualitative component?



- Evaluation completion is not the end
- Revisit metrics and data analysis
- Reflect: Do you have a plan to communicate findings?

# Building Blocks of Sustainable Measurement Systems

## De-Mystify the scariness of data

- Engage and educate clients on the 'why' of measurement
- Educate staff on basic data principles
- Provide opportunities for additional training



## Evaluation involves everyone

- Measurement doesn't happen in isolation
- Set up opportunities to get input, share lessons, identify challenges
- Keep the knowledge and process accessible



## It's all in the details

- Go beyond broad statements about success
- Look at: Positive + negative, intended + unintended impacts
- Measure and mitigate negative consequences



# Case Study:

## “Measuring Health Equity in Toronto Central LHIN”

### Project Goal:

Build capacity among hospital/CHCs to measure inequities in access to services, health care delivery, and health outcomes

### Project Framework:

Knowledge mobilization team with expertise in data, health equity, networks within the health field, and operational knowledge of health care

### Result:

Central Toronto is the first health region in Canada with a standardized model for measuring inequities in health quality indicators



#### TRAINING

- Over 700 data collectors & staff trained
- e-Learning module
- Train the trainer program
- Shadow data collectors



#### WORKSHOPS AND SYMPOSIA

- Workshops on Assessing Data Quality; Expanding Data Collection and Use
- Annual symposia
- Events to share learning & experiences



#### COMMUNICATION & ENGAGEMENT

- Brochures, posters, staff scripts
- Questions & brochure in 12 languages
- Patient and client education campaign



#### VISITS & CONSULTATIONS

- Consultations on implementing data collection
- Yearly visits to assess progress and identify needs
- Discussions with senior management



#### IT SOLUTIONS

- Consultations on how to capture data in hospital and/or CHC IT systems
- Alternative solutions provided to organizations with limited IT capacity (e.g., Access file)
- Lessons and examples shared between organizations on entering and reporting data

(Sinai Health System, 2017)

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**THANK YOU!**

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