

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

Preconference-
International
Metropolis
Conference

24 June 2019

Caroline W Bennett-AbuAyyash, PhD

Assistant Professor, Dalla Lana School of Public Health, University of Toronto
Research Lead, Women's College Hospital



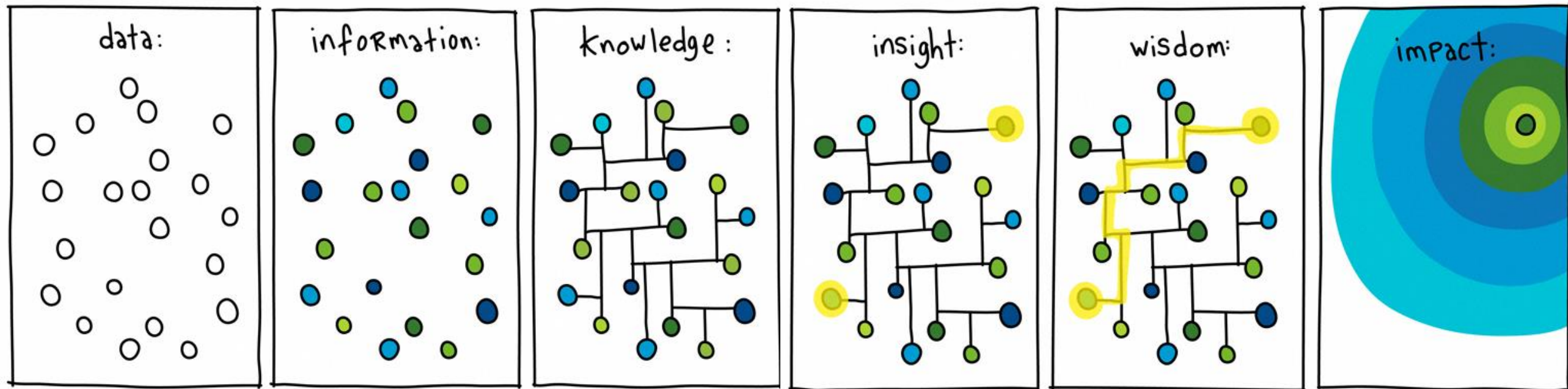
UNIVERSITY OF TORONTO
DALLA LANA SCHOOL OF PUBLIC HEALTH

AGENDA



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

Metrics: Finding Meaning in Data



@gapingvoid

History of Measurement



INPUTS:

What did we invest?

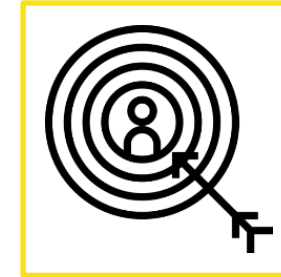
5 staff provide employment counselling



OUTPUTS:

How much did we do?

200 immigrants visited the program

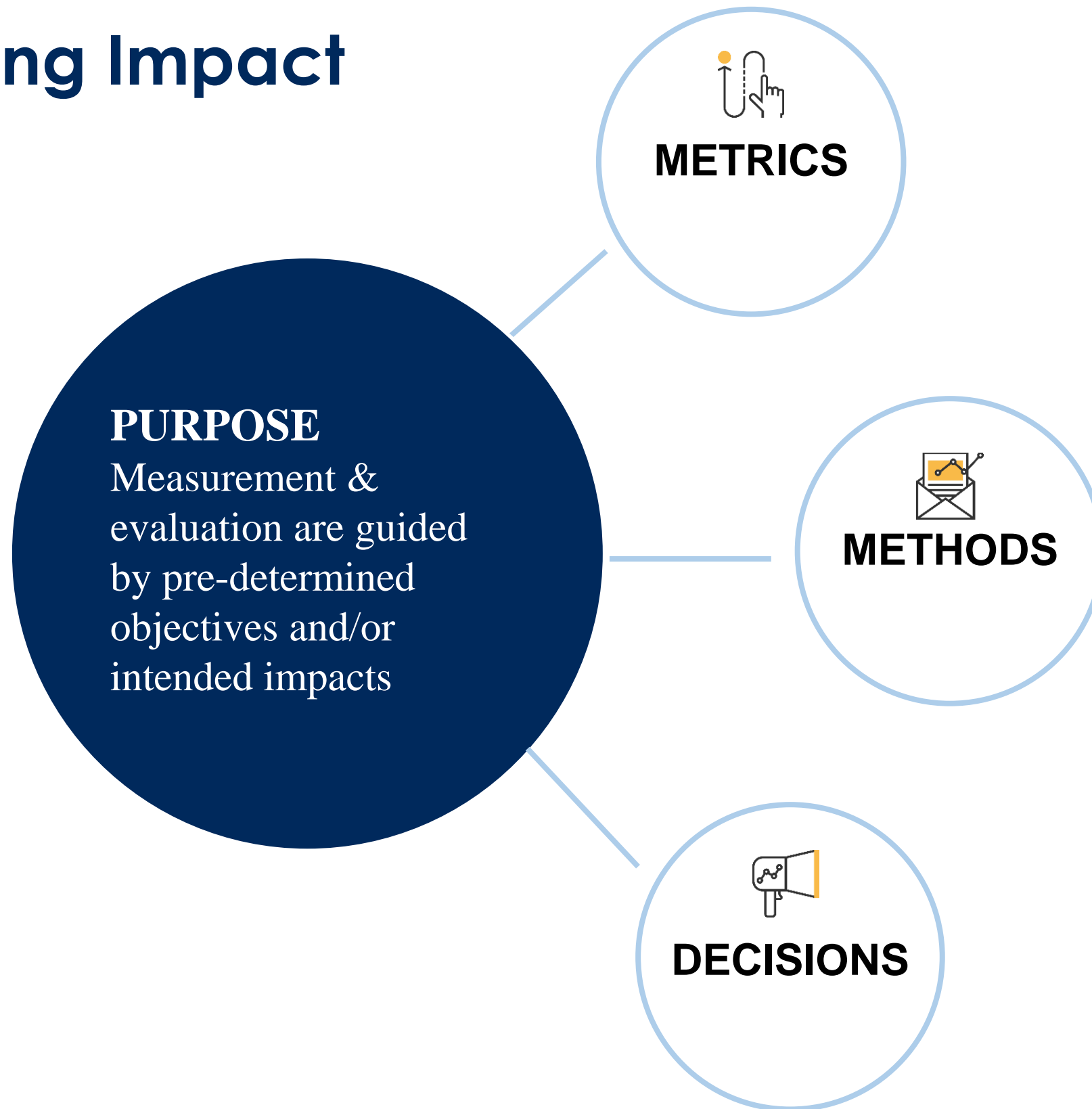


IMPACTS:

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

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

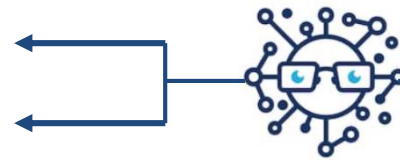
Measuring Impact



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



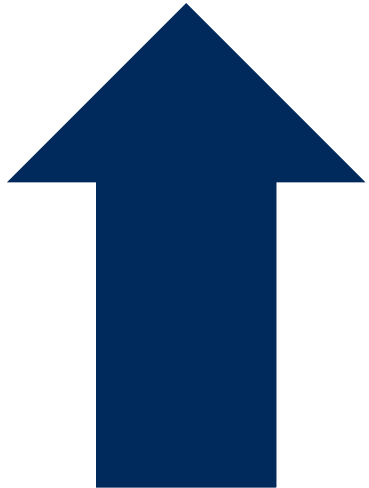
OUTCOMES:

What are outcomes of immigrants/refugees/immigrants?

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

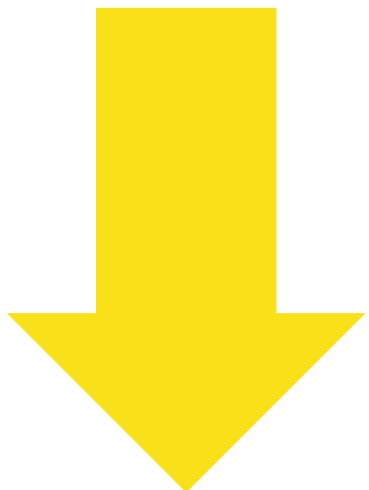
Note : Measuring 'satisfaction'

- 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

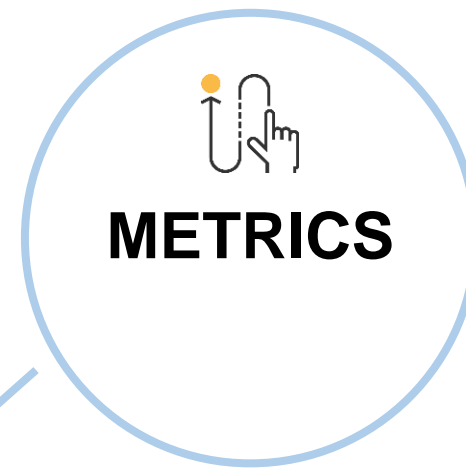
- Low-hanging fruit
- Identifies concerns
- Builds accountability
- Serves as engagement tool



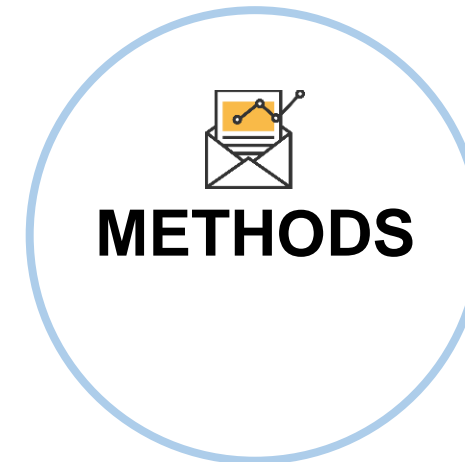
Limitations

- 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 Azimaee, Karey Iron, Doug Manuel and Astrid Guttman ✉

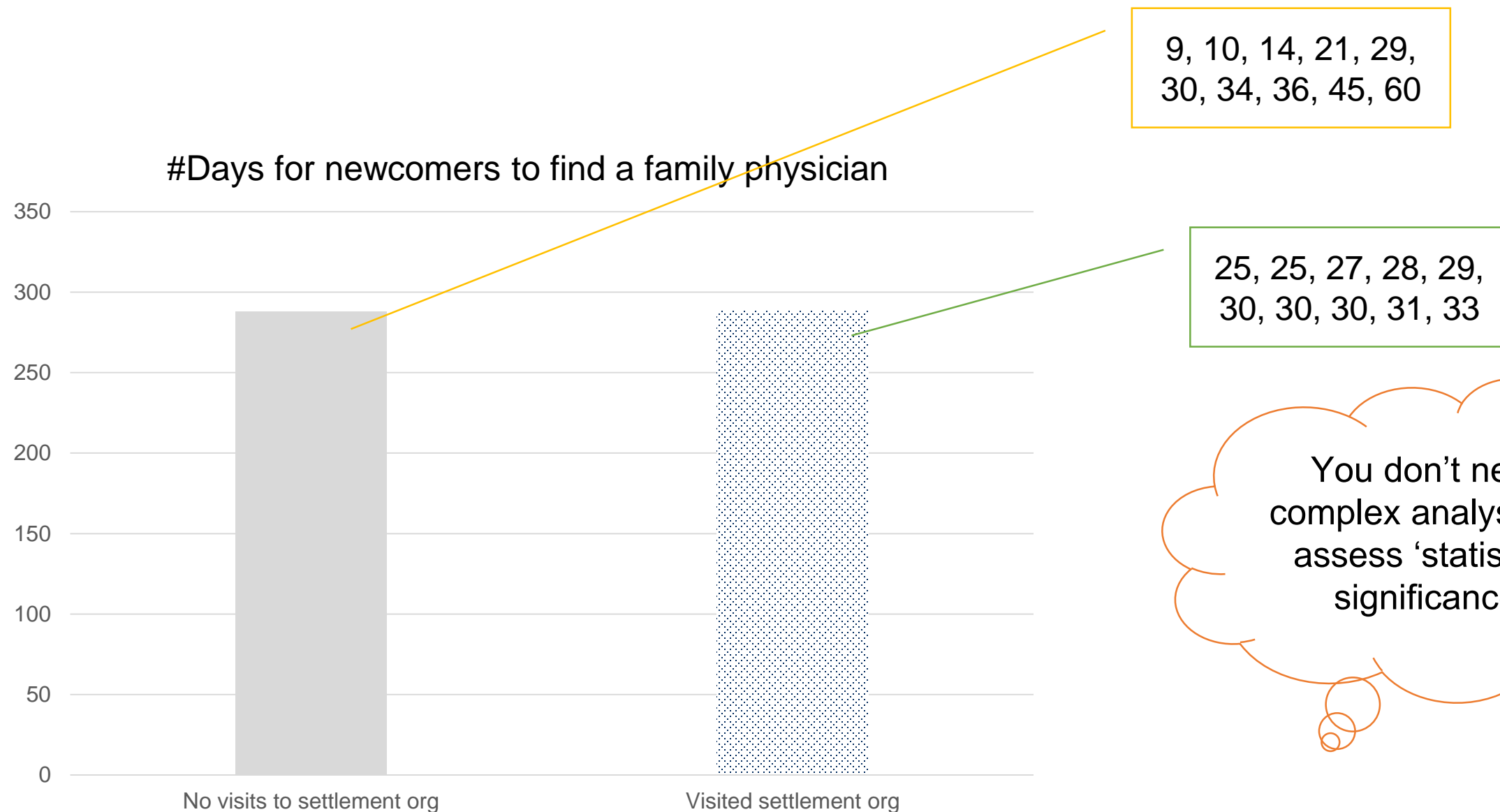
BMC Medical Informatics and Decision Making BMC series – open, inclusive and trusted 2016 16:135

<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



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:

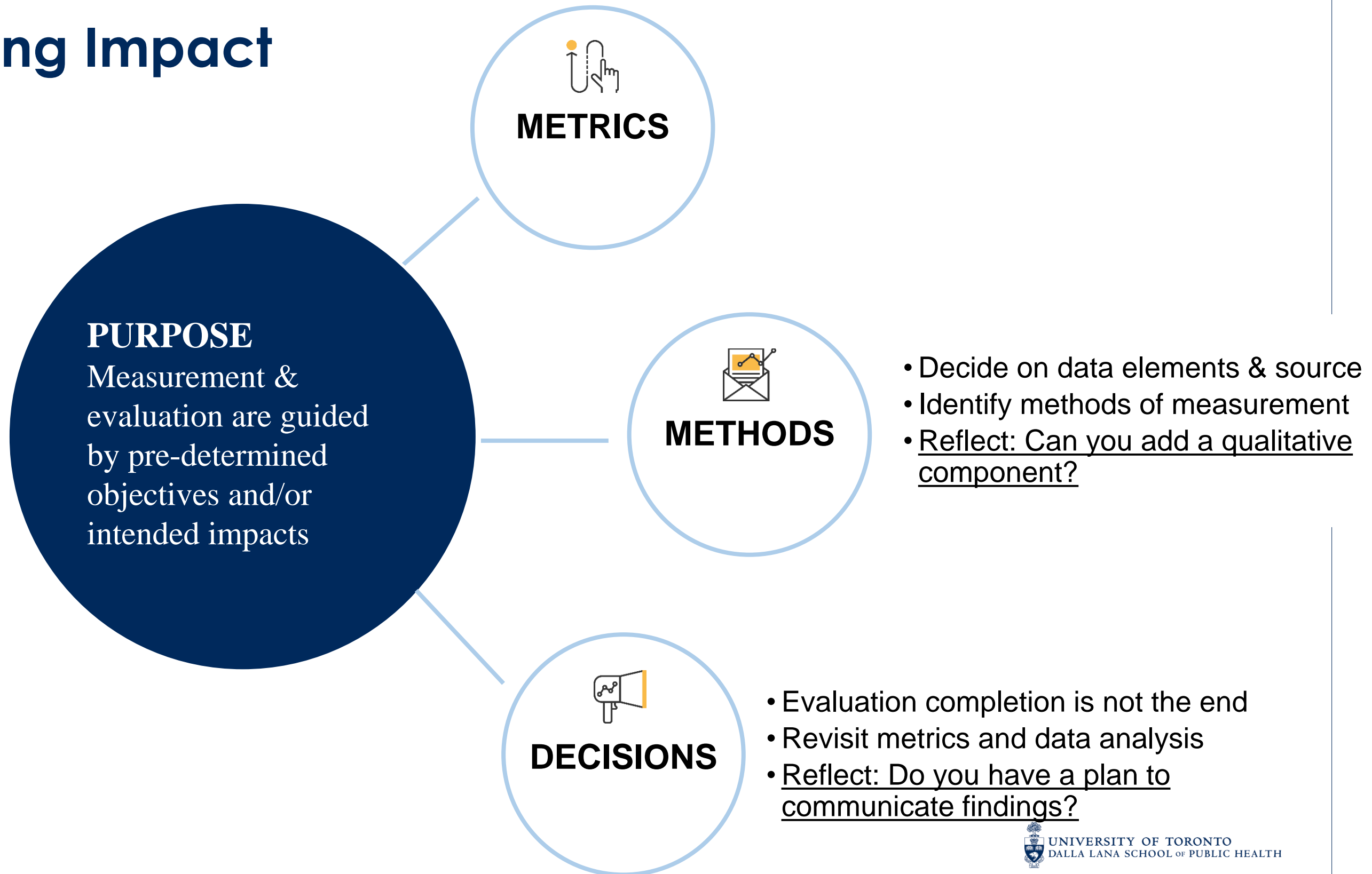
Evaluate impact of new mental health support service/policy on new immigrants' well being

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

Approach	Descriptors	Pros/Cons	EXAMPLE
Quasi-experimental Designs	Most common in the ‘real world’	<u>Pros:</u> Adaptability	<u>Use pre-existing groups:</u> Compare well-being of group receiving mental health support to those on waitlist <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
	Little control over assigning individuals into different groups	<u>Cons:</u> Requires vigilance in set-up and analysis	
	Ensure comparison group is as similar as possible	Less reliable evidence	

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

Measuring Impact



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)

References

- Fooks, C., Obarski, G., Hale, L., & Hylmar, S. (2015, January). The patient experience in Ontario 2020: What is possible? *HealthcarePaper*, 14(4), 8-18. doi:10.12927/hcpap.2015.24339
- Sept, L., Naylor, S., & Weston, R. (2011, February). *Measuring impact of social programs: A review of the best practices*. Report from Stanford Global Supply Chain Management Forum. Retrieved from <https://www.gsb.stanford.edu/sites/gsb/files/publication-pdf/other-measuring-impact-social-programs.pdf>
- Shields, J., Drolet, J., & Valenzuela, K. (2016, February). *Immigrant settlement and integration services and the role of non-profit service providers: A cross-national perspective on trends, issues, and evidence*. RCIS Working Paper No 2016/1. Retrieved from https://www.ryerson.ca/content/dam/rcis/documents/RCIS%20WP%202016_01%20Shields%20et%20al%20final.pdf
- Sinai Health System. (2017, July). Demographic data collection and use in Toronto Central LHIN hospitals and community health centres. Retrieved from <http://torontohealthequity.ca/wp-content/uploads/2013/02/Measuring-Health-Equity-Demographic-Data-Collection-Use-in-TC-LHIN-Hospitals-and-CHCs-2017.pdf>

THANK YOU!

Caroline Bennett-AbuAyyash
caroline.aa@gmail.com

