



**Policy Wise**  
**for Children & Families**

## **Building Bridges: Connecting Social-Sector Data in Alberta**

Homeless Data Sharing Initiative Day 2, May 29, 2018

Jason Lau, PhD, Director of Data Operations  
[jlau@policywise.com](mailto:jlau@policywise.com)

# PolicyWise for Children & Families

## Our Mission

To develop and integrate evidence to inform, identify and promote effective public policy and service delivery to improve the well-being of children, families and communities.





# PolicyWise Impact Statement

From a foundation of trust,  
PolicyWise will:

- **lead** | Promote and inspire shared vision and action for change;
- **create** | Generate, fund and enable consistently high quality and policy relevant data, information, evidence, knowledge and wisdom;
- **mobilize** | Support meaningful, diverse cross sector alignment and learning among beneficiaries

to influence evidence-informed policy and practices to improve child, family and community well-being.



# Secondary Data Use

## Beyond purpose it was collected for

- Administrative data
- Far larger dataset than for-purpose data collection, but not always the exact data point you wanted to get

## Benefits

- Expand the use and value of existing data
- Reduces burden on clients/participants/individuals
- Gain systemic intelligence on performance, outcomes, and impact.
- Help quantify ROI for funders and planning purposes
- **Potential for linkage and cross-disciplinary analysis with other existing datasets**



# Data Initiatives at PolicyWise

## Child and Youth Data Lab (CYDL)

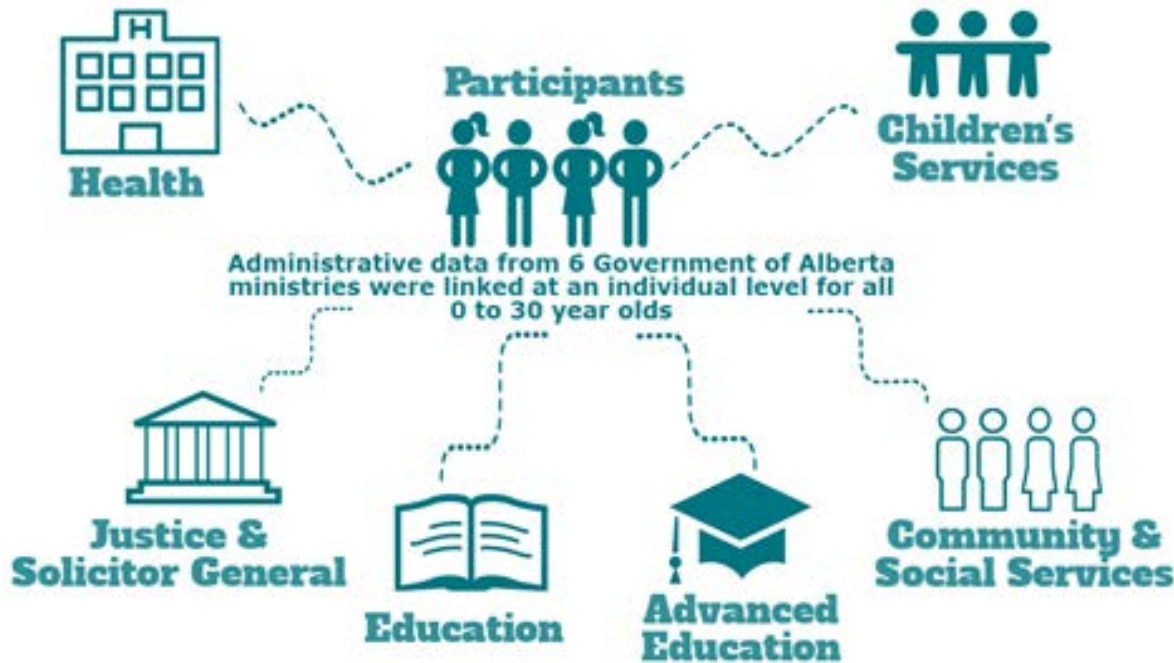
- Links and analyzes government administrative data
- For policy relevant research
- With a focus on children, youth and families in Alberta

## Secondary Analysis to Generate Evidence (SAGE)

- Data repository for research, non-profit, and government data
- Value added services
- Goal: Link data to answer more complex questions



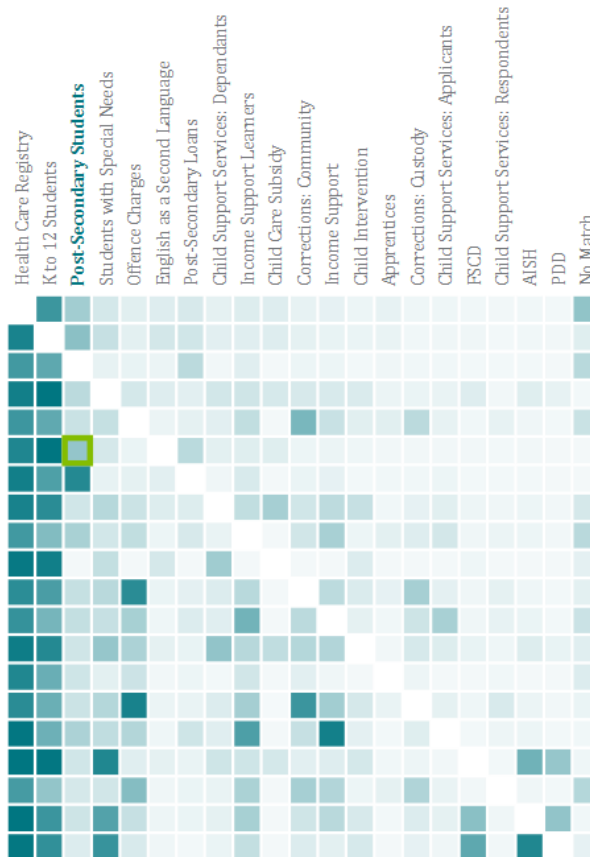
# Experiences of Children and Youth: A Longitudinal Project



- **2 million+** Albertans 0 to 30 years of age
- **50 million+** service uses over 6 years (2005/06 to 2010/11)
- **20+** databases; more than **225** data elements

# Program Overlap Matrix

Health Care Registry  
K to 12 Students  
Post-Secondary Students  
Students with Special Needs  
Offence Charges  
English as a Second Language  
Post-Secondary Loans  
Child Support Services: Dependants  
Income Support Learners  
Child Care Subsidy  
Corrections: Community  
Income Support  
Child Intervention  
Apprentices  
Corrections: Custody  
Child Support Services: Applicants  
FSCD  
Child Support Services: Respondents  
AISH  
PDD



Matrix:

Program overlap in any study year ▼

Sort matrix by:

Total Individuals ▼

Minimum Age	Maximum Age	Total Individuals	% of study Population
0	30	1,766,604	84.1%
5	19	882,874	70.7%
17	30	390,358	36%
3	19	163,597	12%
12	30	115,084	8.1%
4	19	111,184	8.5%
17	30	106,012	9.8%
0	22	103,618	5.6%
18	30	102,805	9.8%
0	12	72,394	8.2%
12	30	69,683	4.9%
18	30	59,411	5.6%
0	22	48,773	2.6%
17	30	48,757	4.5%
12	30	29,288	2.1%
18	30	19,838	1.9%
0	17	17,515	1.2%
18	30	11,280	1.1%
18	30	9,448	0.9%
18	30	4,369	0.4%

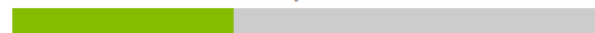
[Download the linkage tables](#)

[Matrix overview](#)

[Program overlap summary](#)

[Video tutorial](#)

**37.3%** of individuals in English as a Second Language matched to an individual in Post-Secondary Students



6,818 of 18,262 age overlapping individuals.

<https://visualization.policywise.com/P2matrix>

[https://visualization.policywise.com/P2matrix/Video\\_tutorial.html](https://visualization.policywise.com/P2matrix/Video_tutorial.html)

## FAMILY SUPPORT FOR CHILDREN WITH DISABILITIES

A look at patterns for Albertan children and youth (aged 0-17) receiving Family Support for Children with Disabilities (FSCD) services

Child and Youth Data Laboratory  
Longitudinal Project  
2005/06 - 2010/11

◀ 2010-11

FSCD broad disability type

9,888

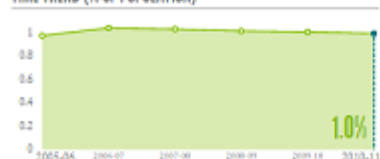
6,992  
Developmental  
Conditions

1,592  
Health  
Conditions

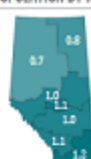
1,592  
Mental Health  
Disorders

BROAD DISABILITY TYPE

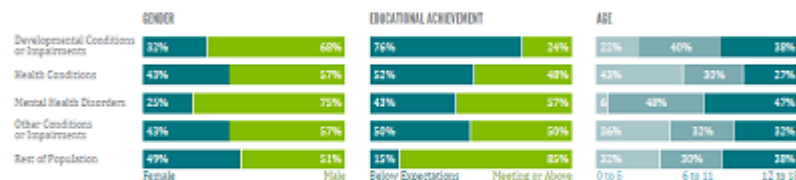
TIME TREND (% OF POPULATION)



% OF POPULATION BY REGION

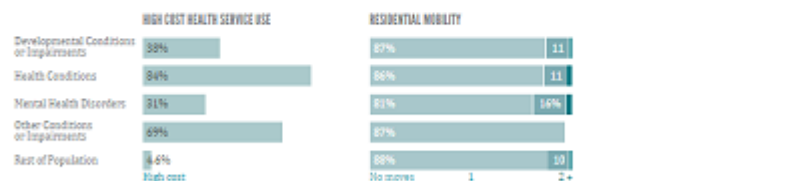


◀ 2010-11



BROAD DISABILITY TYPE

◀ 2010-11



SOCIO-ECONOMIC STATUS (NEIGHBORHOOD-LEVEL MEASURE)

◀ 2010-11



## Income Support Recipients

A look at Albertans between the ages of 18 to 25 who were accessing income support.

Child and Youth Data Laboratory  
Longitudinal Project  
2005/06 - 2010/11

◀ 2010-11

INCOME SUPPORT CLIENTS

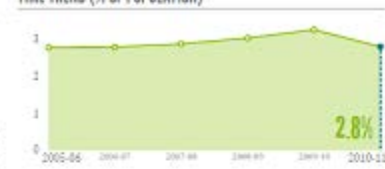
14,380

10,986  
Barriers to Full  
Employment

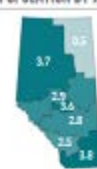
10,986  
Expected to Work

10,986  
One Time Issue

TIME TREND (% OF POPULATION)



% OF POPULATION BY REGION



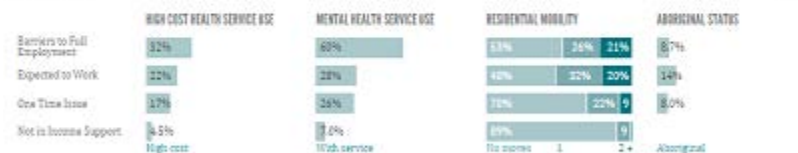
CLIENT TYPE

◀ 2010-11



CLIENT TYPE

◀ 2010-11



SOCIO-ECONOMIC STATUS (NEIGHBORHOOD-LEVEL MEASURE)

◀ 2010-11



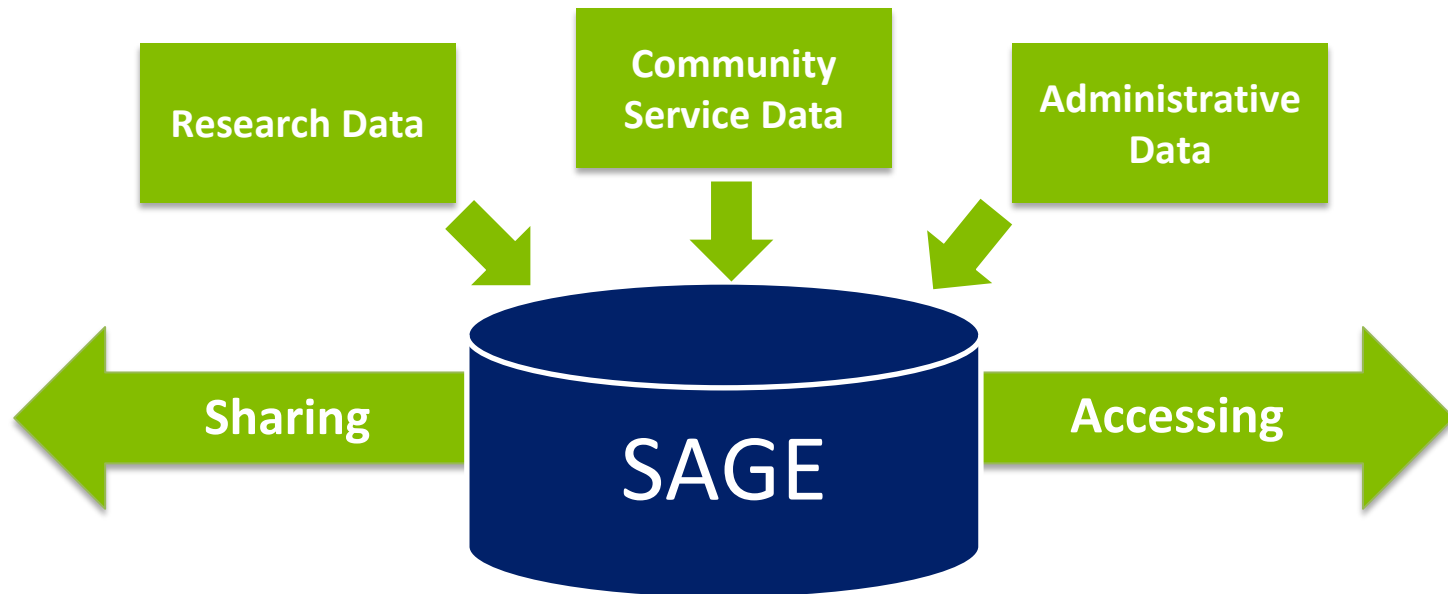
<https://visualization.policywise.com/P2dashboard>

POLICYWISE FOR CHILDREN & FAMILIES



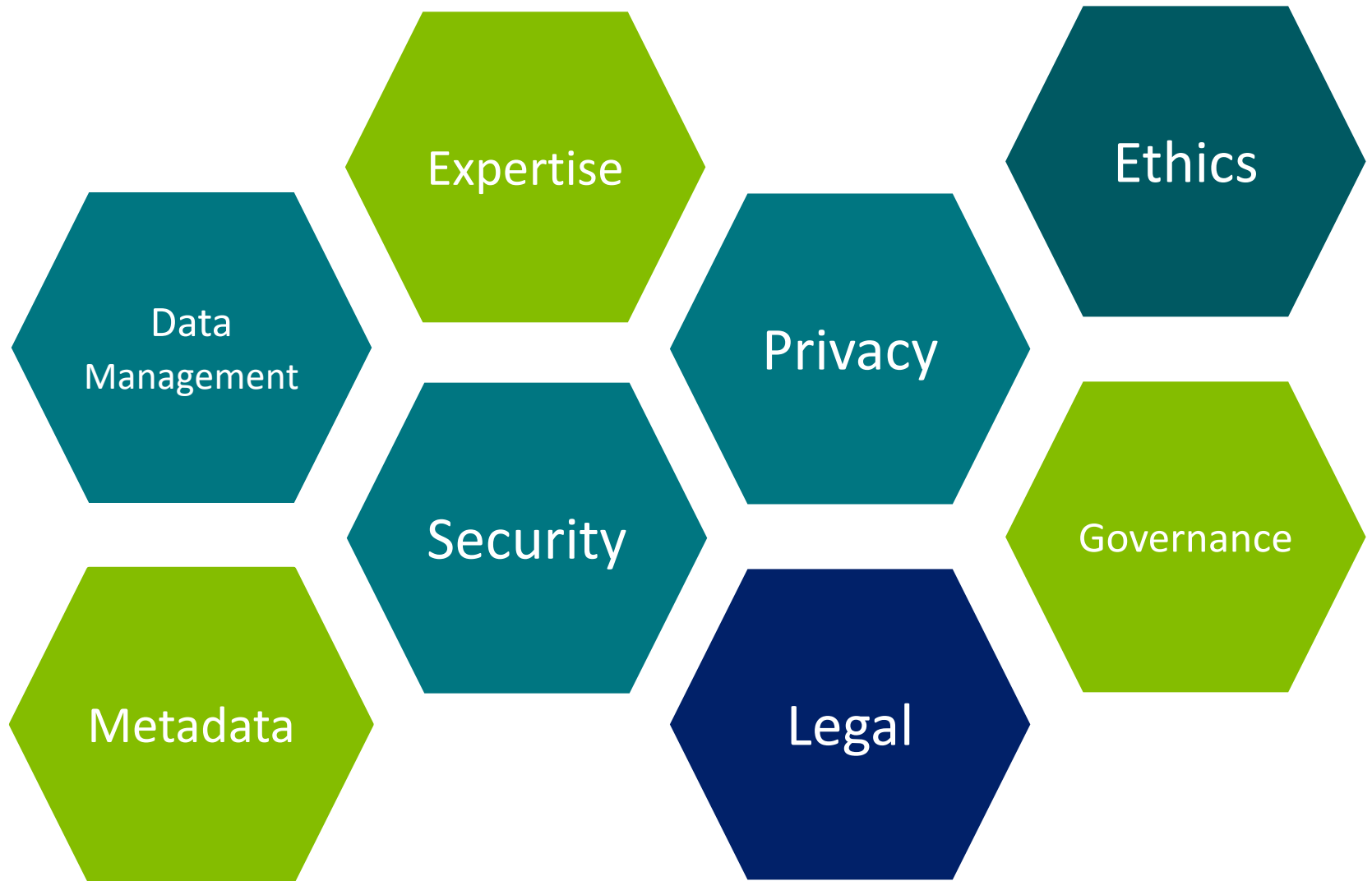
# SAGE

(Secondary Analysis to Generate Evidence)



Enable and support use to Inform Policy and Practice

# Collaboration Platform





## Policy Wise for Children & Families

Resize font:



### SAGE Community Based Organization Data Readiness Survey

[Secondary Analysis to Generate Evidence \(SAGE\)](#) is conducting an assessment of the needs of the non-profit community and we would really appreciate your input in the questions below!

SAGE is a data repository developed by [PolicyWise for Children & Families](#) to facilitate collaboration among stakeholders via linking, managing, and sharing of sensitive data in an ethical manner.

**Goal:** This survey's objective is to understand how (or whether) non-profit organizations manage, use and share information (data) collected by them. Information collected through this survey will guide future work with local non-profits to liberate data to generate evidence and collaborate with each other on common goals. Even if you feel your organization has no capacity or limited capacity with data your feedback is still valuable. This survey will bring an understanding of legal and legislative barriers to data sharing, as well as needs regarding technical capacity among non-profit organizations in Alberta.

PolicyWise staff will analyze the results we receive from this survey and post them on our website. Only averages and aggregated results will be posted; individual organization data will not be identified or released.

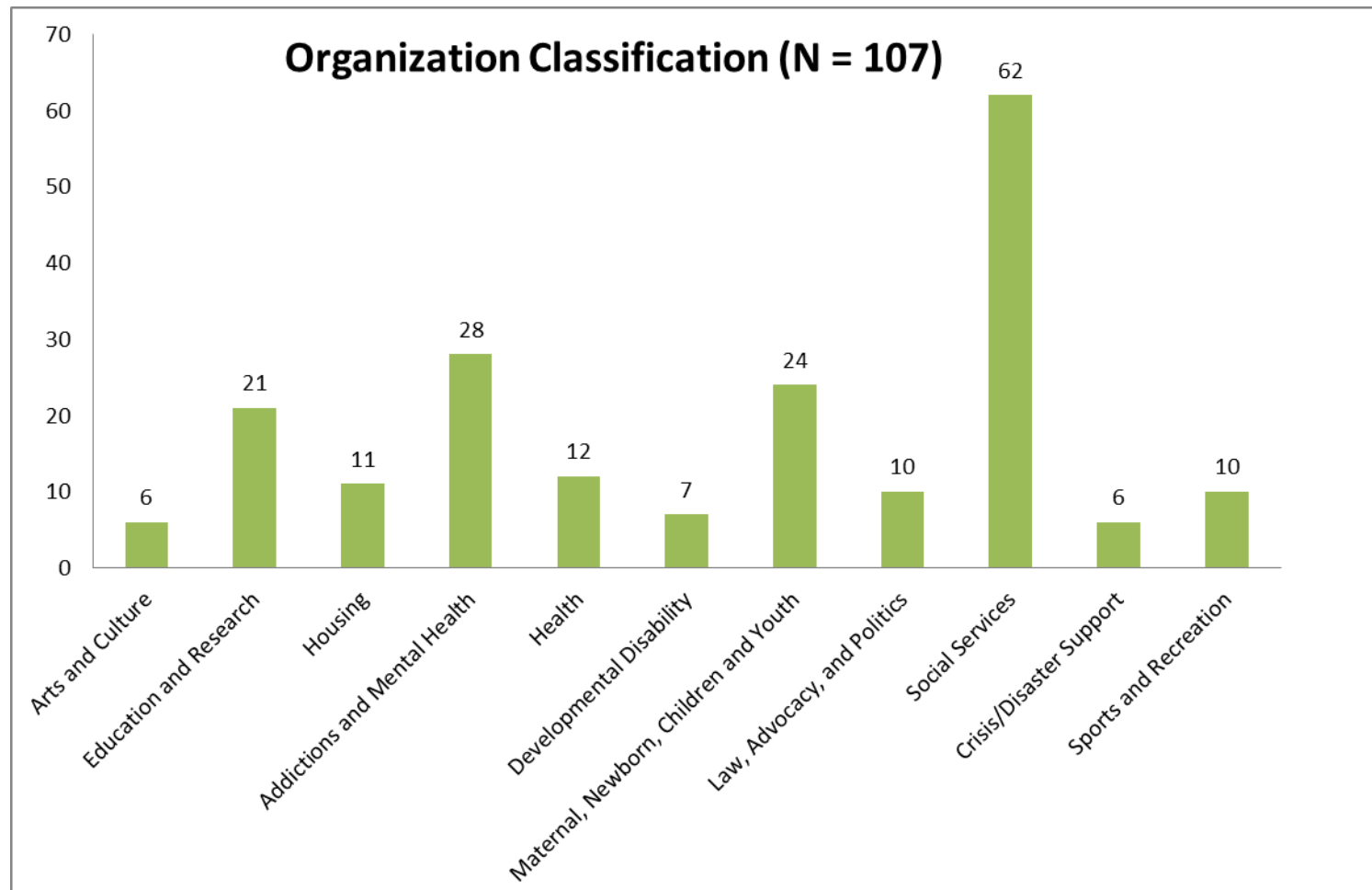
#### Instructions for responding this survey:

Only one person per organization should answer this survey

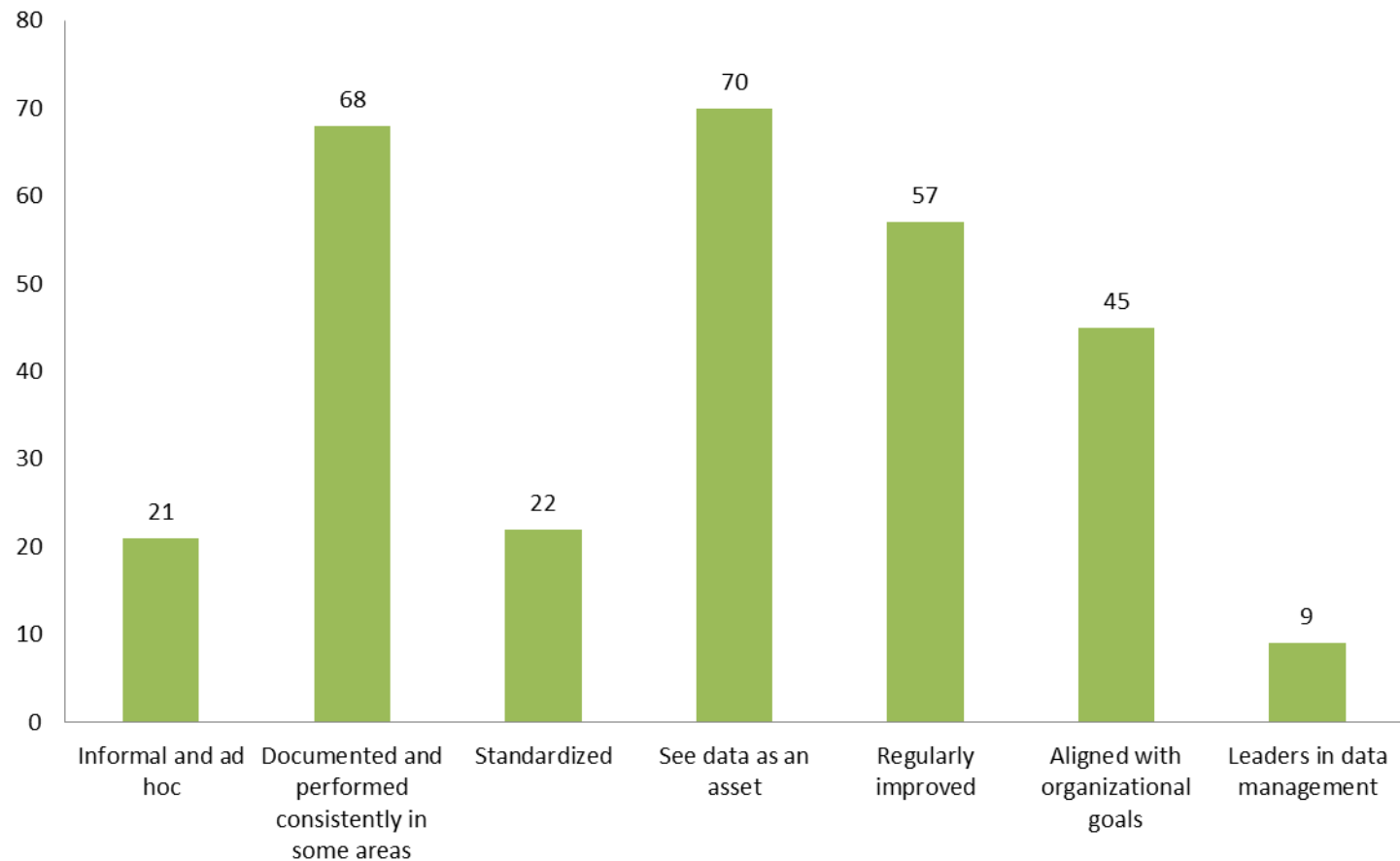
The person responding to this survey should be familiar with their organization's strategies, mission and values, as well as the guidelines around how information is collected and managed (i.e., administrative information, client information, program information, funding information, etc.)

**1. How would you classify your organization? (Please select all that apply)**

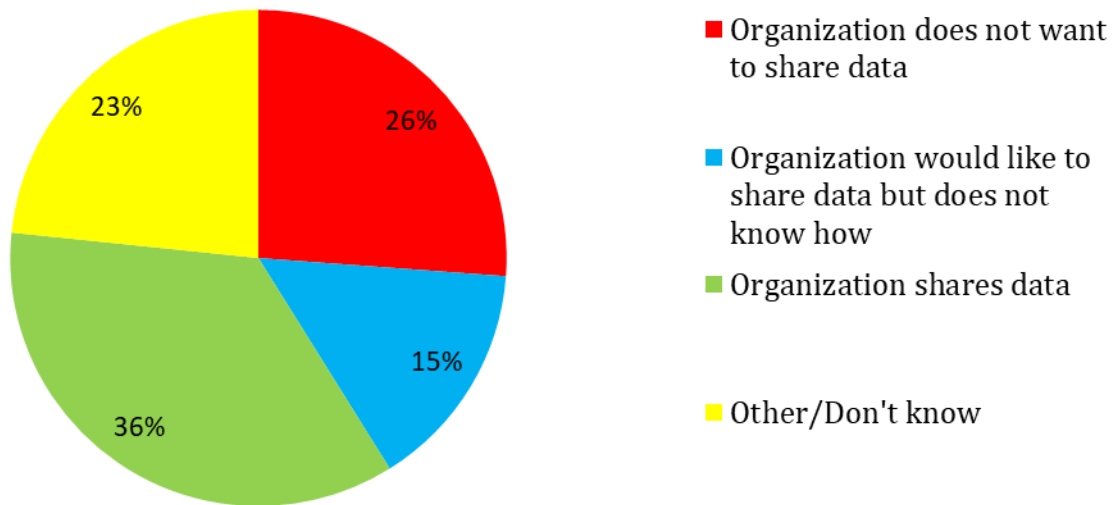
- ☐ Arts and Culture
- ☐ Education and Research
- ☐ Housing
- ☐ Addictions and Mental Health



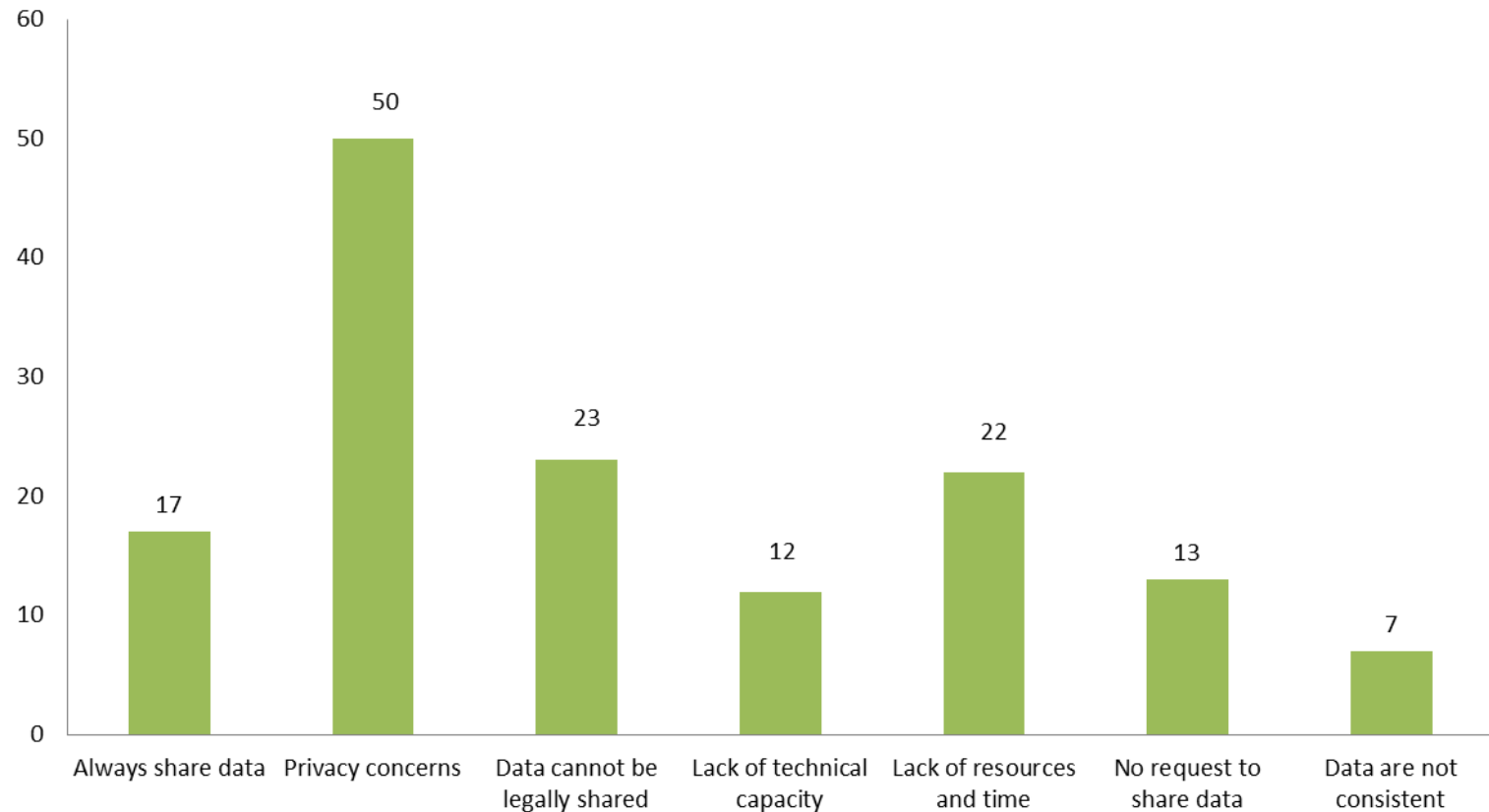
## Organization's Data Management Practices Are... (N = 106)



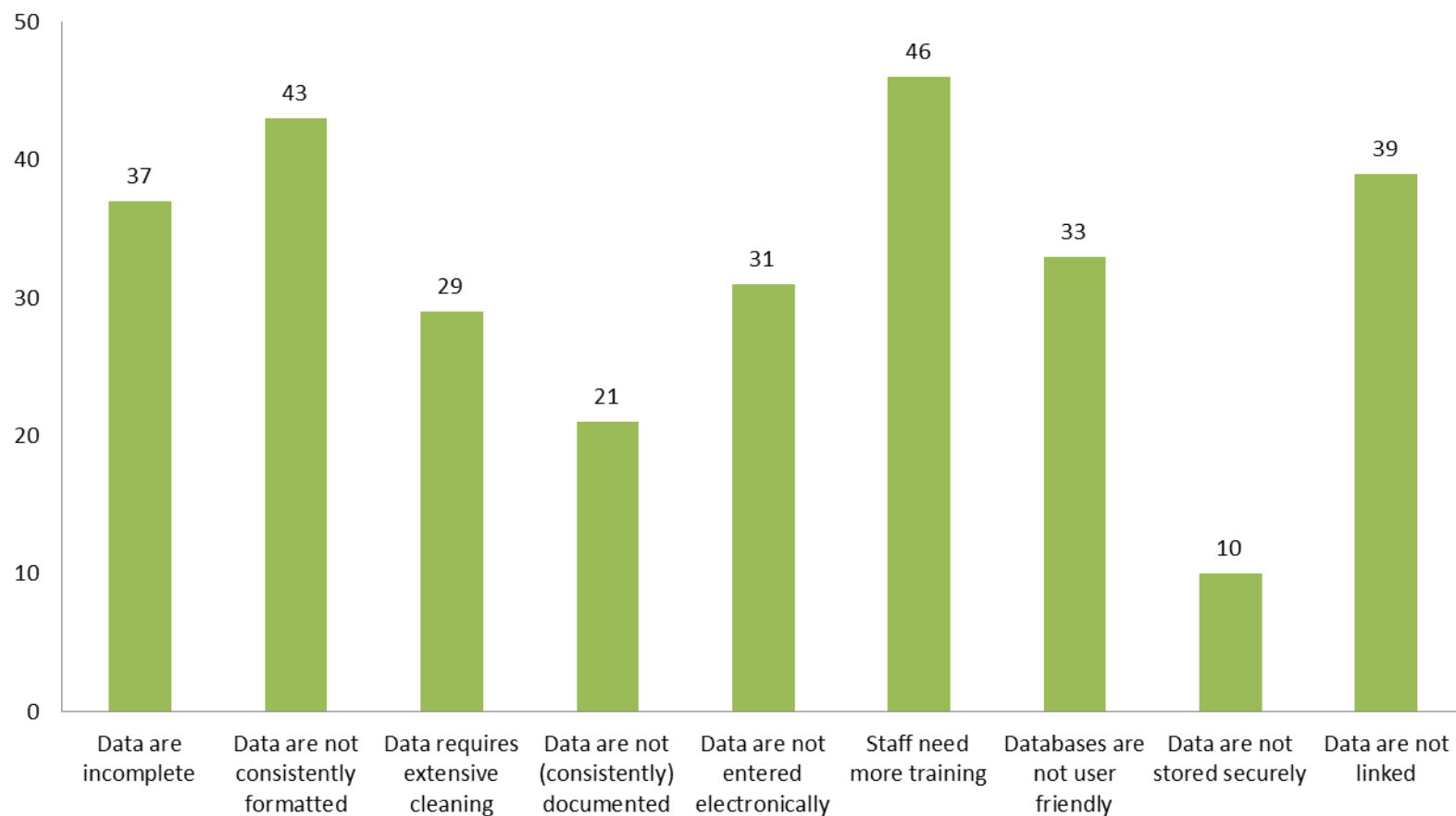
### Organization's Data Sharing Attitude (N = 107)



### Why Not Sharing (Specific) Data? (N = 84)



## Major Challenges (N = 93)





# Survey comments

...**outcome data** is currently not linked to specific clients.

...**demographic** information for the area of the city we work in.

...**ability to track clients** movement through our organization and over time

**Linked records** for clients in accessing different programs would help with planning and evaluation.

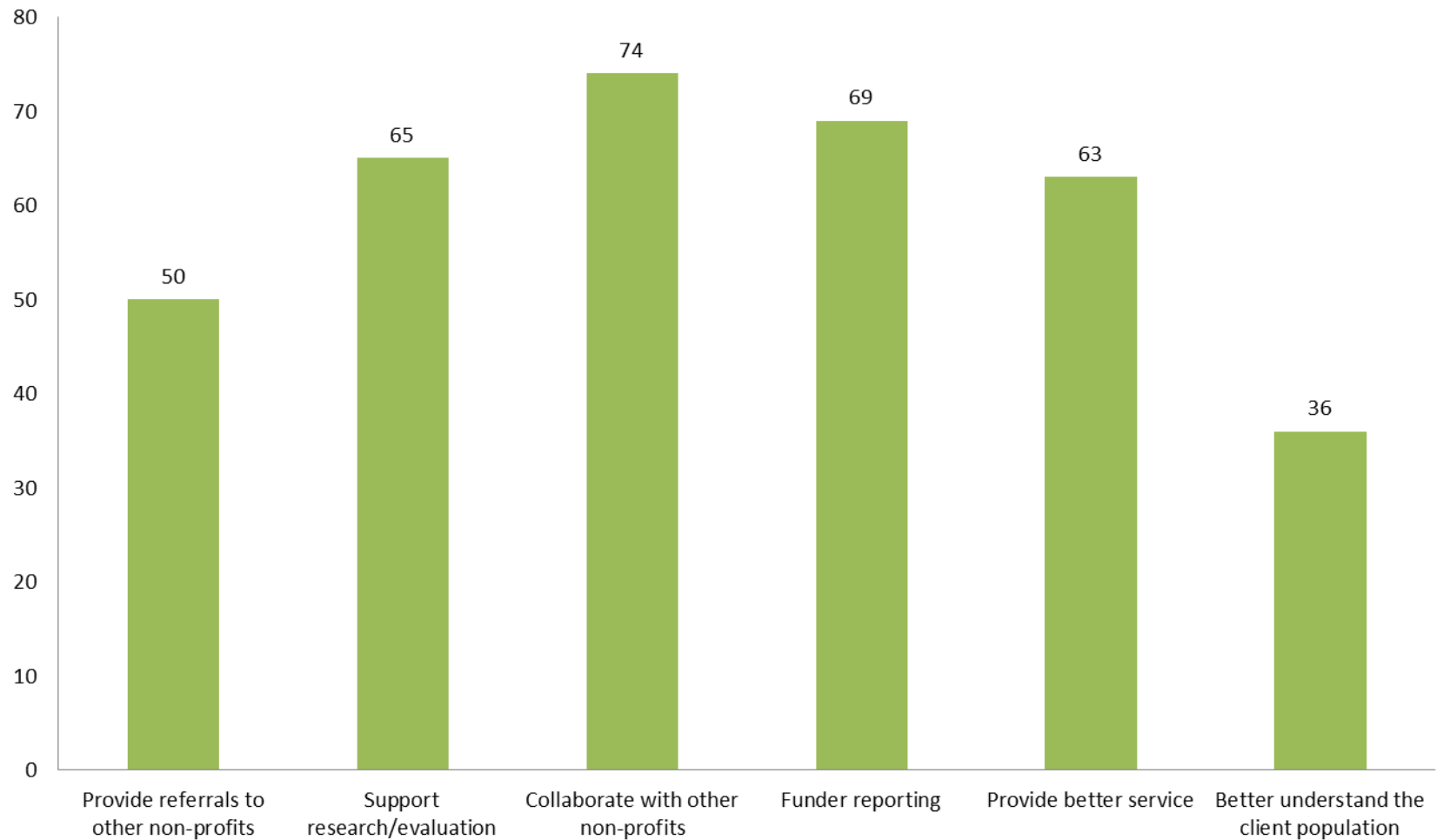
We need more community needs assessment data. We run programs and, based on feedback, we are meeting outcomes. However, **are there groups of people we aren't seeing?** Have their needs changed over the years of us doing programs?

Reliable **baseline** information to measure against

...a unifying **measurement** across all programs and services

...**ability to view data** collected on individual participants in a format such as a dashboard to better monitor participant life stability and successes.

## Why Sharing Data? (N = 106)



# Calgary Thrives/SAGE Data Sharing



**CALGARY  
FOOD BANK**



CALGARY  
**counselling**  
centre



SouthWest Communities Resource Centre

**Calgary Thrives Project: January 2017 – June 2018**

# Calgary Thrives

**Goal:** Sharing data across community social service agencies to better inform service delivery.

- Address privacy, legal, and ethical barriers to allow data sharing.
- Assess technical capacity of agencies to be stewards of data - are they 'data ready'?
- Linking data and measuring poverty at the community level in Calgary.
  - Adopted Canadian Poverty Institute's definition of poverty.
  - Became a proof of concept for PolicyWise's linkage software.

Building **TRUST**.

# Data and Not For Profits

## What do we collect?

- Client information/outcomes
- Program outcomes
- Program evaluation

## Why?

- Funders require it
- Need to help clients
- Need to track resources and outcomes

# How do they collect data?

## Client consent

- Clients will sign a form allowing agencies to collect their data for services.
- Some agencies have additional clause for collecting data for research.
- Other agencies have implied consent (ie. no consent). Eg. Food Bank.
  - **Think:** “we’ll give you your food hamper, just please give us your information.”?!?

PolicyWise SAGE not for profit client consent template.

**NFPs may not have guidance from central ethics board.**

**PIPA is a good guideline to follow:**

- Have clear policies on handling information and information requests.

**A few best practices:**

- Use only minimal information to complete the task at hand.
- Have consent for use.
- Have administrative, technical, and physical safeguards.
- Allow individuals to access their own information and request corrections.
- Proper governance.

<https://policywise.com/2017/08/22/new-report-law-and-governance-of-secondary-data-use/>



# How do we collect data?

## Technical capacity

- Intake processes vary. Some are very involved, others more basic.
- Database systems vary. Some are proprietary, other agencies use Excel.
- Event based data vs. individual based data.
- Sometimes it's merely a matter of priorities. Dealing with vulnerable populations. Serve the clients first!



# Why share data amongst NFPs?

- One agency's data may only fill part of the picture.
- Are agencies able to collect a minimal set of elements that can give us the bigger picture?
- They may have received a food hamper today but what about the events that have lead up to that?
- How do we provide resources not only to help the client in the immediate short term but ensure they don't need to be a repeat visitor?
- Can we evaluate impact as a sector, or in a client-centric way?
- **Linking data across agencies will allow us to serve clients more wholistically.**

# What can we learn about poverty?

- What variables are relevant?
- Acquired all available intake data from 6 agencies: SWCRC, CCC, Families Matter, Calgary Food Bank, Sunrise Link, CUPS.
- Lots of other data:
  - Intake forms
  - Psychological questionnaires
  - Administrative forms
  - Emergency fund recipient information forms
  - Program evaluation forms
- Scrutinized almost 30,000 different data items.

Variable Category	Variables	Agency Name				
		AGENCY 1	AGENCY 2	AGENCY 3	AGENCY 4	AGENCY 5
Demographics	Gender/Sex	x	x	x	x	x
	Date of Birth	x	x	x	x	x
	Marital Status		x	x	x	x
	Number in Household		x	x	x	x
	Household Role (Single Parent, etc)		x	x	x	
	Children		x	x	x	x
	Pets			x		
	Household Income		x	x	x	x
	Monthly Rent			x		x
	Employment Status		x	x		
	Grade (if child)				x	
	Address/Area of Residence	x		x		x
	Residential Mobility			x		
	Highest level of Education		x	x	x	
Ethnic Identity	Indigenous		x		x	x
	Ethnic Identity		x		x	x
	Language Spoken		x		x	x
	Born in Canada		x		x	
Client-Worker Interaction	New or ongoing client	x				
	Method of consent (written, verbal)	x				
	Requires translator	x				
	Other service providers assisting	x				
	How were they referred		x	x	x	
Presenting Issues	Addictions	x	x	x		
	Bullying	x	x			
	Issues with children	x		x		
	Domestic Violence	x	x	x		
	Education	x				
	Mental/Emotional Issues	x	x	x		
	Suicide Concern		x	x		
	Family Relationships	x		x		
	Housing	x		x		
	Immigration	x				
	Low Income/Poverty	x		x		
	Employment Issues	x		x		
	ESL	x	x			
	Health	x	x	x		
	Need Food Hamper	x		x		
	Parenting Support	x		x		
	Tax Support			x		
	RESP (for children)			x		
	Child and Family Services Involvement			x		
	Physical Disability		x	x		
	Mental Disability		x	x		
	Have Family Doctor			x		

- Winnowed 30,000 data items down to ~500 items.

!!!NOTE: This worksheet is for your reference only. If you need more information on Agency1 questions please use this to help you fill out the General Agency1 Evaluation worksheet of you think a particular question is relevant.

Variable Category	Question	Response
	Since when at current address	(open text answer)
	Length of residency (autocalculated)	(open text answer)
	Postal Code of last permanent address	(open text answer)
Presenting Issues	Addictions/dependencies (e.g. alcohol, gambling, drugs)	(open text answer)
	Baby needs	(open text answer)
	Bullying - perpetrator	(open text answer)
	Bullying - victim	(open text answer)
	Caregiving and/or respite	(open text answer)
	Child behaviour	(open text answer)
	Child safety (maltreatment, neglect, exposure to domestic violence)	(open text answer)
	Childcare (eg. daycare, dayhome, babysitting, nanny)	(open text answer)
	Clothing	(open text answer)
	Computer technology	(open text answer)
	Discrimination	(open text answer)
	Domestic violence - perpetrator	(open text answer)
	Domestic violence - victim	(open text answer)
	Early childhood development	(open text answer)
	Education - adult	(open text answer)
	Education - child	(open text answer)

# Categorize Items

- Items were then categorized into 17 different bins:
  - Demographics
  - Disability
  - Domestic Violence
  - Education
  - Employment
  - Financial
  - Food Security
  - General Health
  - Housing
  - Immigration
  - Legal Issues
  - Life Events
  - Literacy
  - Mental Health
  - Miscellaneous
  - Parenting
  - Resilience
  - Risk Factors
  - Social Support
- All items within each bin were aggregated.
- Sorted in descending order based on the number of initials they received.

# Ambrose Classification

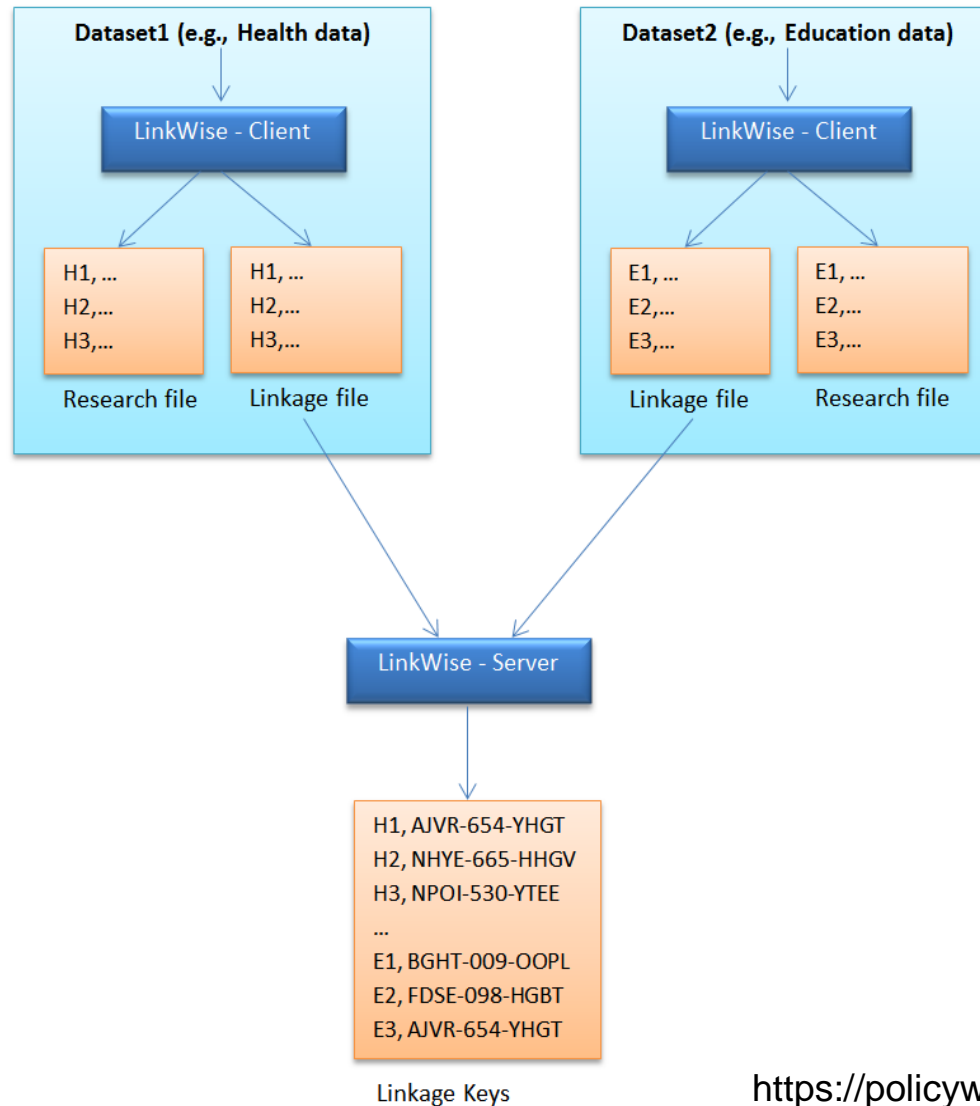
- Based on the Ambrose Multidimensional Poverty definition each item was classified according to 4 criteria:
  - Standard of Living Capital
  - Self Relationship Capital
  - Structural Capital
  - Relationship Capital

Ambrose Classification	Classification	What this tool might measure	Variable Category	Response Item	Count
Standard of Living	Financial	General low income/poverty		Low income/poverty	5
Standard of Living	Financial	Client has challenges paying bills		Utilities – arrears	5
Standard of Living	Financial	Client has challenges paying bills		Utilities – cut-off/reduced load	5
Standard of Living	Financial	Reasons for variation in income		Reasons for variation in income	5
Standard of Living	Financial	What is the client's debt level?		Debt levels	5
Standard of Living	Financial	Client has had challenges fulfilling basic needs.	BASIC NEEDS	Basic Needs Assessment	5
Standard of Living	Financial	Client's total income	INCOME	Total Income (Yearly)	4
Standard of Living	Financial	Client's sources of income		Primary and additional sources of income	4

# Poverty Indicator

- Data request included a measure of substance abuse, domestic violence, and standard of living.
- We will be measuring this across Calgary communities and within the data as a whole.
- Because this uses data from 3 different agencies, those data are not standardized and need to be harmonized.

# Data Linkage

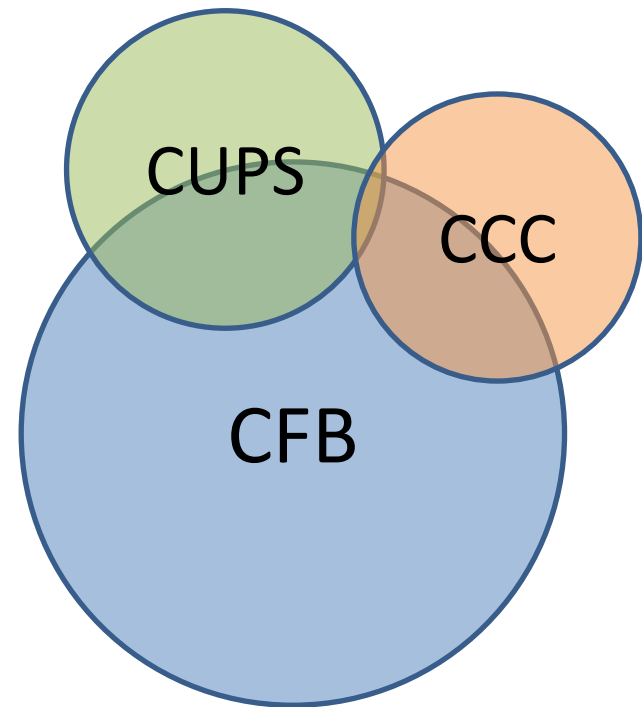


<https://policywise.com/2018/03/15/linkwise/>



# Linking of Data Across Agencies: Preliminary Results

- Using LinkWise we calculated the number of clients in common amongst three of the agencies.
- Not only did this give us an unprecedented picture of client overlap, it also represented a strong test case for LinkWise.





# Secondary Use by Design

- Client perspective
  - Balance of protection and benefit
  - At the minimum, should not preclude data sharing (i.e. destruction of data)
  - Clients should understand sharing and future use of data
- Incorporate secondary use in practice
  - Data for business intelligence, evaluation, research
  - Engage clients

# Where do we go from here?

Data sharing is possible and shouldn't be scary.

- **But building TRUST is paramount with organizations**

Capacity building

- Data management, collection, analytics, visualization

Sector-based perspectives

- Evaluation and collective impact

Data linkage

- Client journeys, service clusters

Data Stewardship and Access

- The value of data is in its use



# **Policy Wise**

## **for Children & Families**

lead, create, mobilize

[data@policywise.com](mailto:data@policywise.com)

**We would like to invite you to our upcoming Open Houses!**



**PolicyWise Calgary: June 21, 3 to 5 PM**

**PolicyWise Edmonton: June 25, 3 to 5 PM**

**Join us in celebrating our 15th anniversary. We would like to thank you for your continued support throughout the years.**

**[REGISTER HERE](#)**

**POLICYWISE FOR CHILDREN & FAMILIES**