

SafeTO Collaborative Analytics and Learning Environment (SCALE)

City of Toronto
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How is the City of Toronto using advanced analytics and data to address community safety and wellbeing?



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Today's topics

- Conversational and relaxed
- About the SafeTO Strategy
- Guide you through our data projects and case studies
- Community data governance
- Learn more about you



Check to see Mentimeter works: "What are you up to this summer?"



Much needed rest and relaxation



Spend time with family and friends



Travelling and vacation



Enjoying nature, e.g. hiking, camping



Special events to look forward to



Oh no - Lots of work

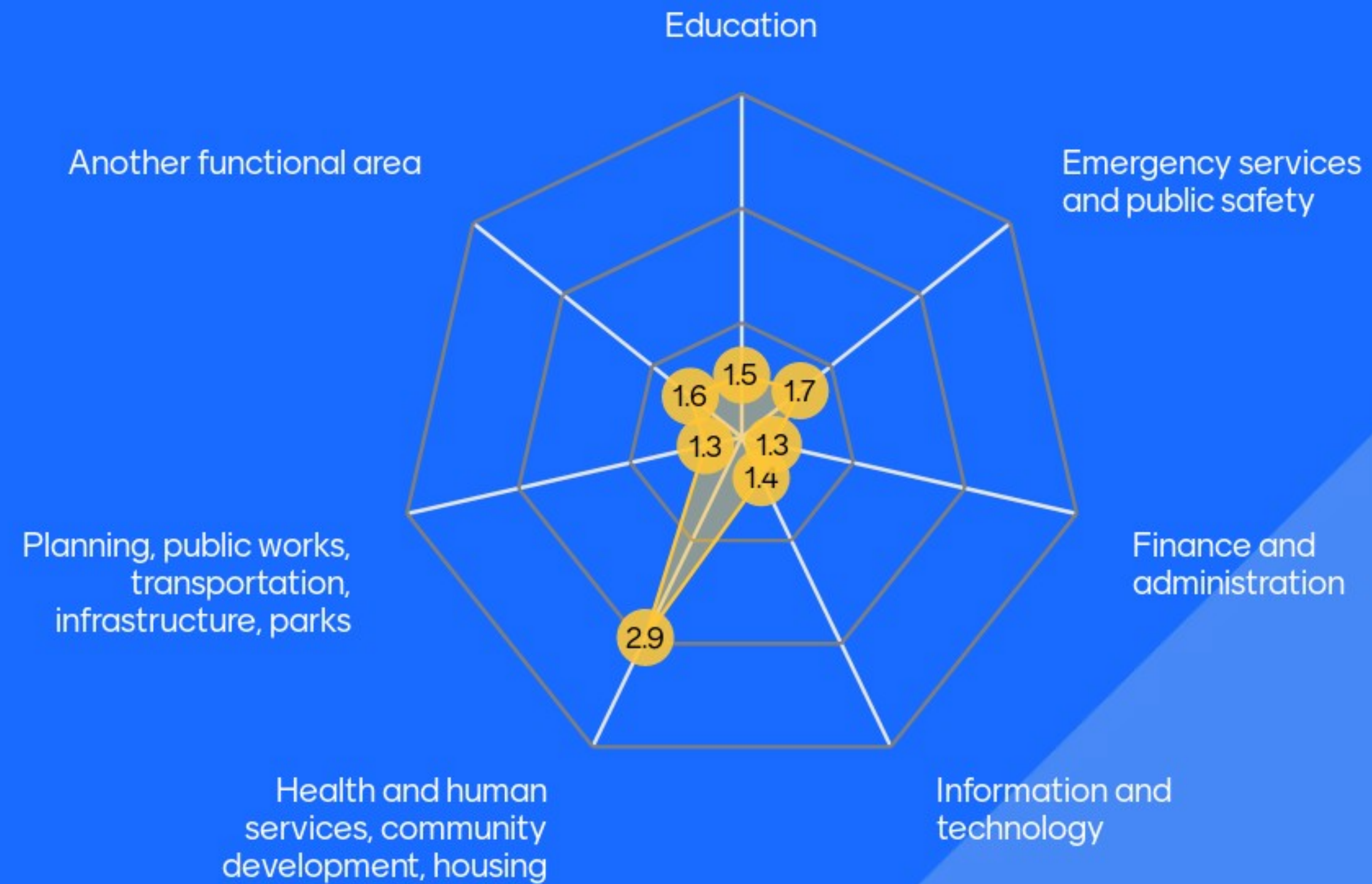


What are your thoughts on data in your work?





What is your functional area?





SafeTO Collaborative Analytics and Learning Environment (SCALE)





Social Development

- Promoting and maintaining community safety and well-being
- Social development requires long – term, multi-disciplinary efforts and investments to improve the social determinants of health and thereby reduce the probability of harm and victimization. Appropriate investment in social development will experience the social benefits of addressing root causes of crime and disorder.

Prevention

- Reducing identified risks
- Prevention involves proactively implementing evidence – based situational measures, policies or programs to reduce locally – identified priority risks to community safety and well-being before they result in crime, victimization and/or harm.

Risk Intervention

- Mitigating elevated risk situations
- Risk intervention involves multiple sectors working together to address and/or interrupt escalating situations where there is an elevated risk of harm.

Emergency Response

- Immediate response to urgent incident
- Immediate and reactionary responses that may involve a sense of urgency in response to crime or safety.

SafeTO



What is SCALE?

- A trusted collaborative partner positioned amongst multiple public sector entities to coordinate analytics activities for SafeTO.
- Co-develop technology solutions, especially related to the safe data storage, empowered by different approved legislation, policies and strategies.
- Support and lead advanced data analysis including geospatial analysis using cross-organizational sources.
- Increase situational awareness of what is happening in community and to support intervention planning and provide positive public impact.



To tackle these complex data challenges you need to build a multidisciplinary centre of excellence





Examples of Different User-Specific Data Products to Address Community Safety and Wellbeing





There is no "one-size-fit-all" product

Every analytics engagement, data product, solution, etc. are all different. It depends context, the business problem, user needs, the data itself and many other processes.



Community Safety & Wellbeing on Transit

Share Print Translate

In January 2023, the City of Toronto and the Toronto Transit Commission launched a partnership with the Toronto Police Service and community service providers to improve community safety and wellbeing on the transit system. This multi-disciplinary approach balances safety, security and compassion to ensure immediate safety risks are addressed and mitigated, and that people in need are connected with supports.

The following metrics are regularly updated to illustrate the progress of these interventions.

Contact Information

For questions related to data or SafeTO Collaborative Analytics and Learning Environment
Email: safeto@toronto.ca

Related Information

[SafeTO: A Community Safety & Well-Being Plan](#)

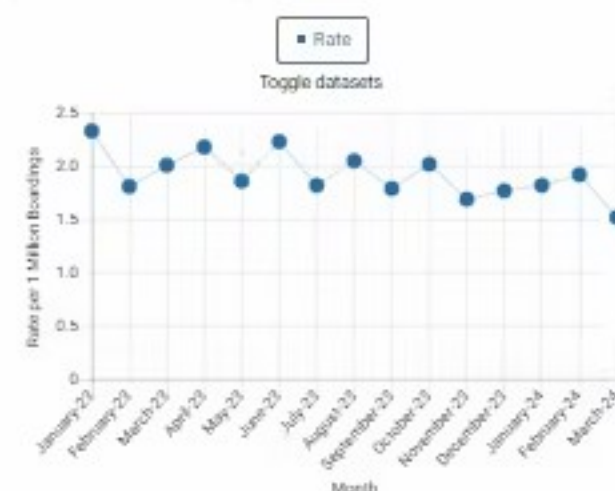
Incidents Interventions Perceptions

These metrics provide an indicator of offences against TTC customers and employees, as well as the volume of calls for service made to TTC special constables and Toronto Police Service officers in the transit system.

Rate of Offences Against TTC Customers per 1 Million Boardings

1.53

in March 2024



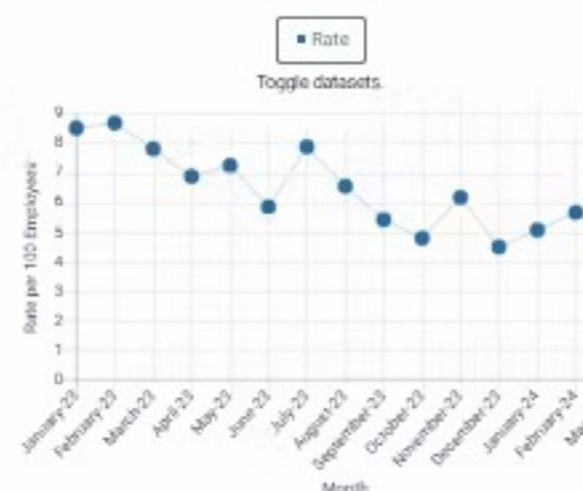
Raw Data for Offences Against TTC Customers

Offences data that is reported by TTC financial periods. This metric tracks the number of reported offences committed against customers on TTC premises or during transit journey. It includes incidents such as theft, assault, harassment, and other incidents affecting TTC customers and is normalized by number of customer boardings each month. (Data Source: Toronto Transit Commission)

Rate of Offences Against TTC Employees per 100 Employees

5.00

in March 2024



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Number of Calls for Service related to Safety Initiative

829

in March 2024

Calls related to Safety Initiative as Percentage of All Calls

27%

in March 2024

Data Product 1: Public Dashboard

- SCALE developed and deployed the transit safety dashboard
- A multi-sectoral public transit safety dashboard, focusing on simple data visualization and KPI monitoring
- Example: toronto.ca/transitdata



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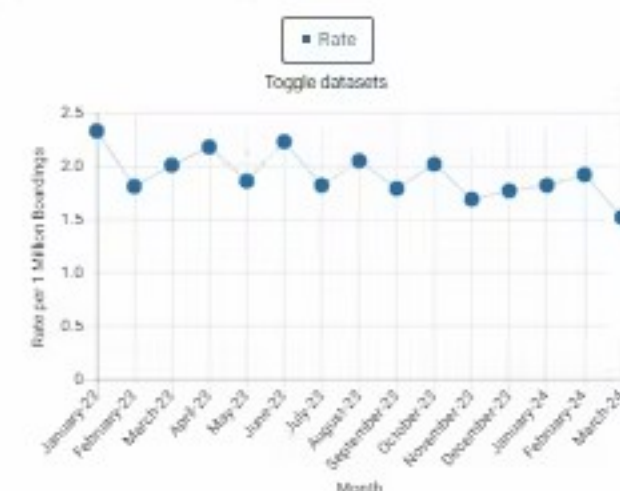
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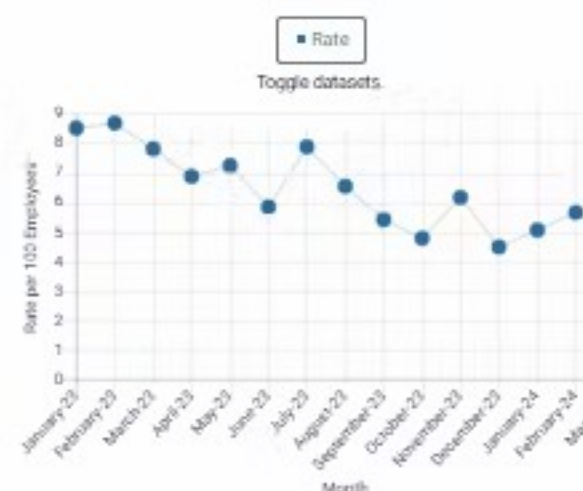
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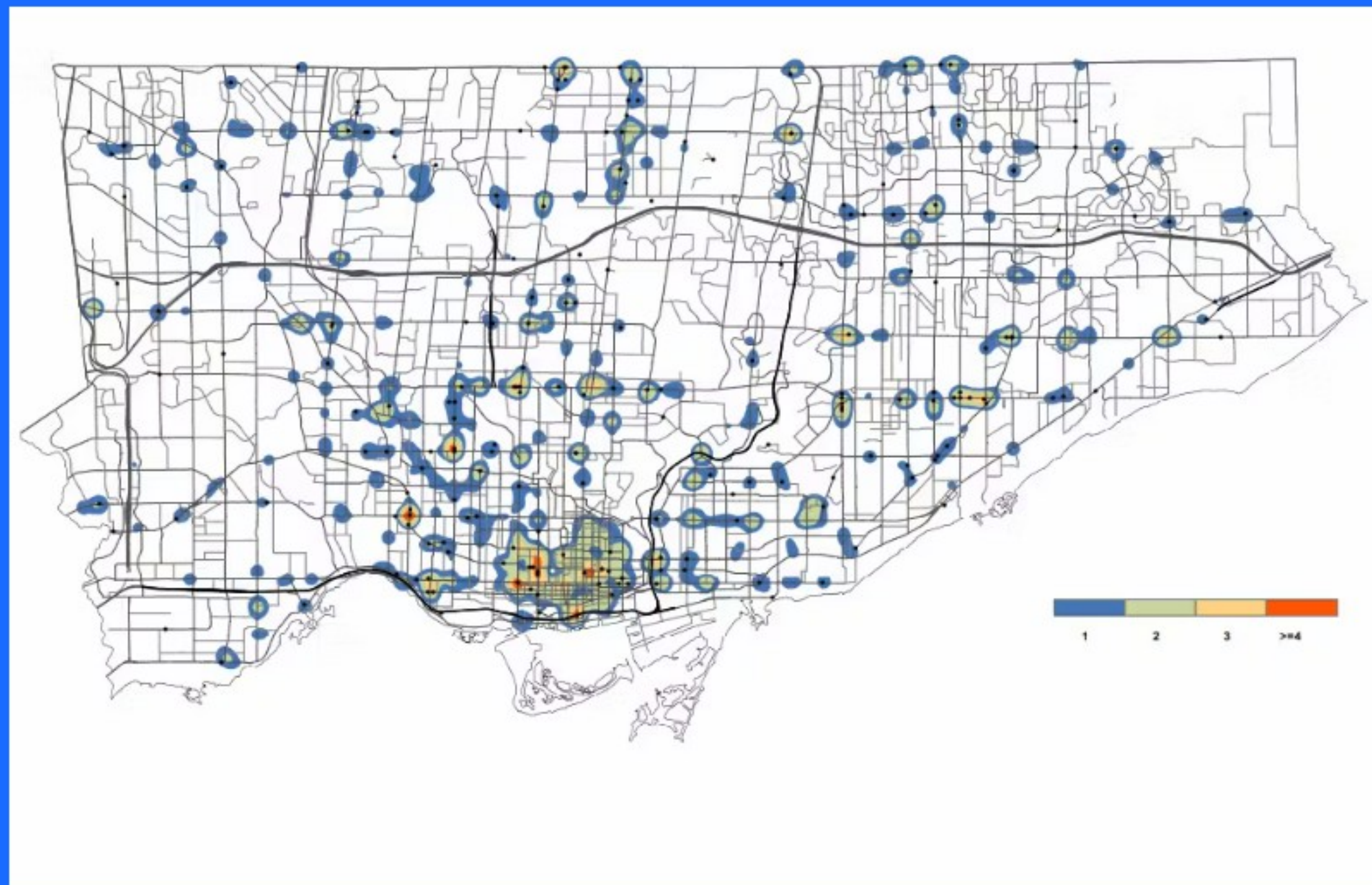
in March 2024

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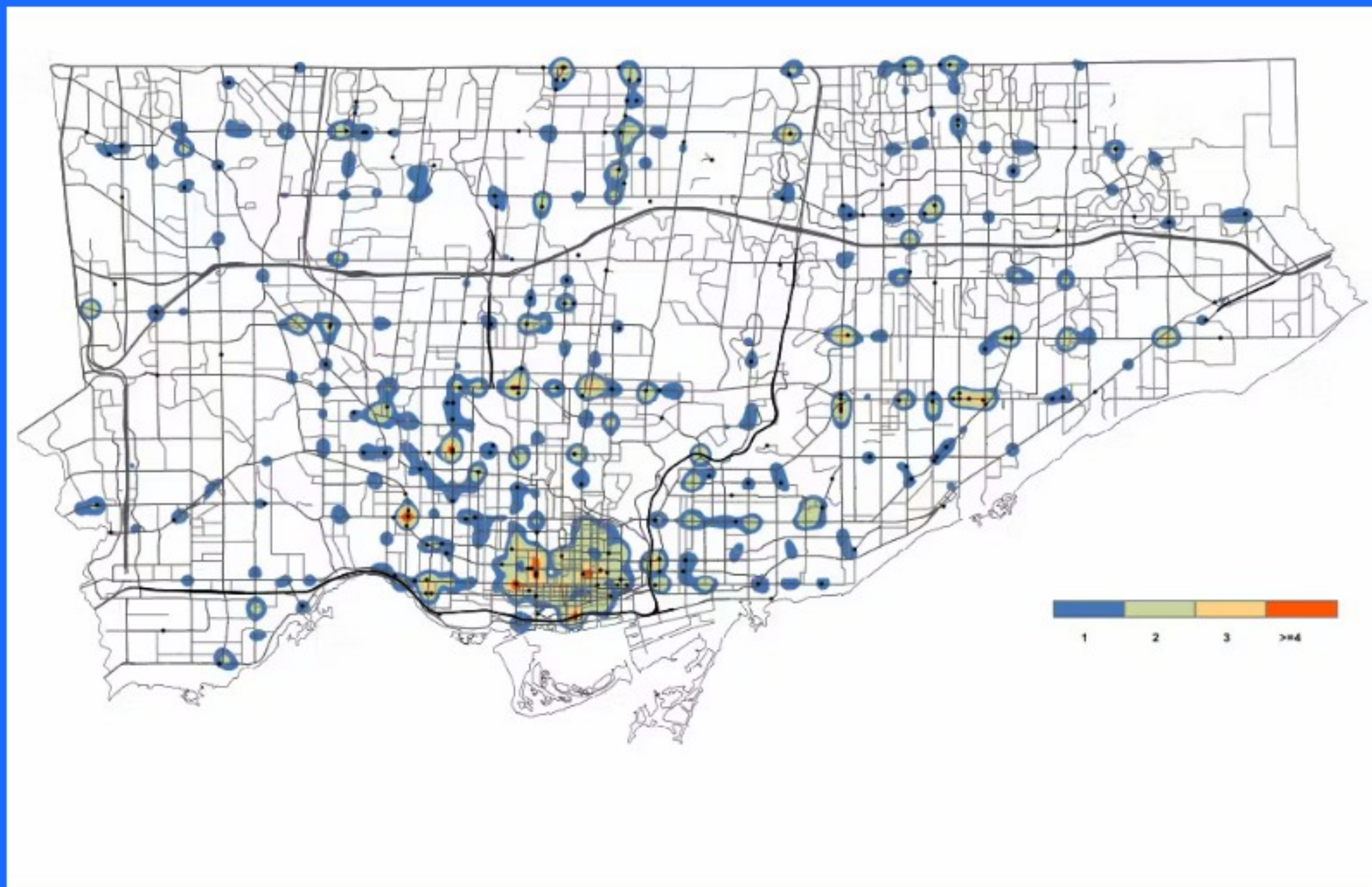
in March 2024

- Access: Available for public
- Problem to solve: Used for high-level monitoring and to improve communication
- Data sources: From multiple organizations
- Digital format: City webpage, Wordpress
- Frequency: Monthly



Data Product 2: Heat Map

- SCALE develops many maps to communicate different geospatial messages.
- Hotspots are helpful analysis to see high frequency activity time and place.
- This can support front-line response, proactive planning and resource allocation.
- Photo is a general public example. Source: Vision Zero and Pedestrians



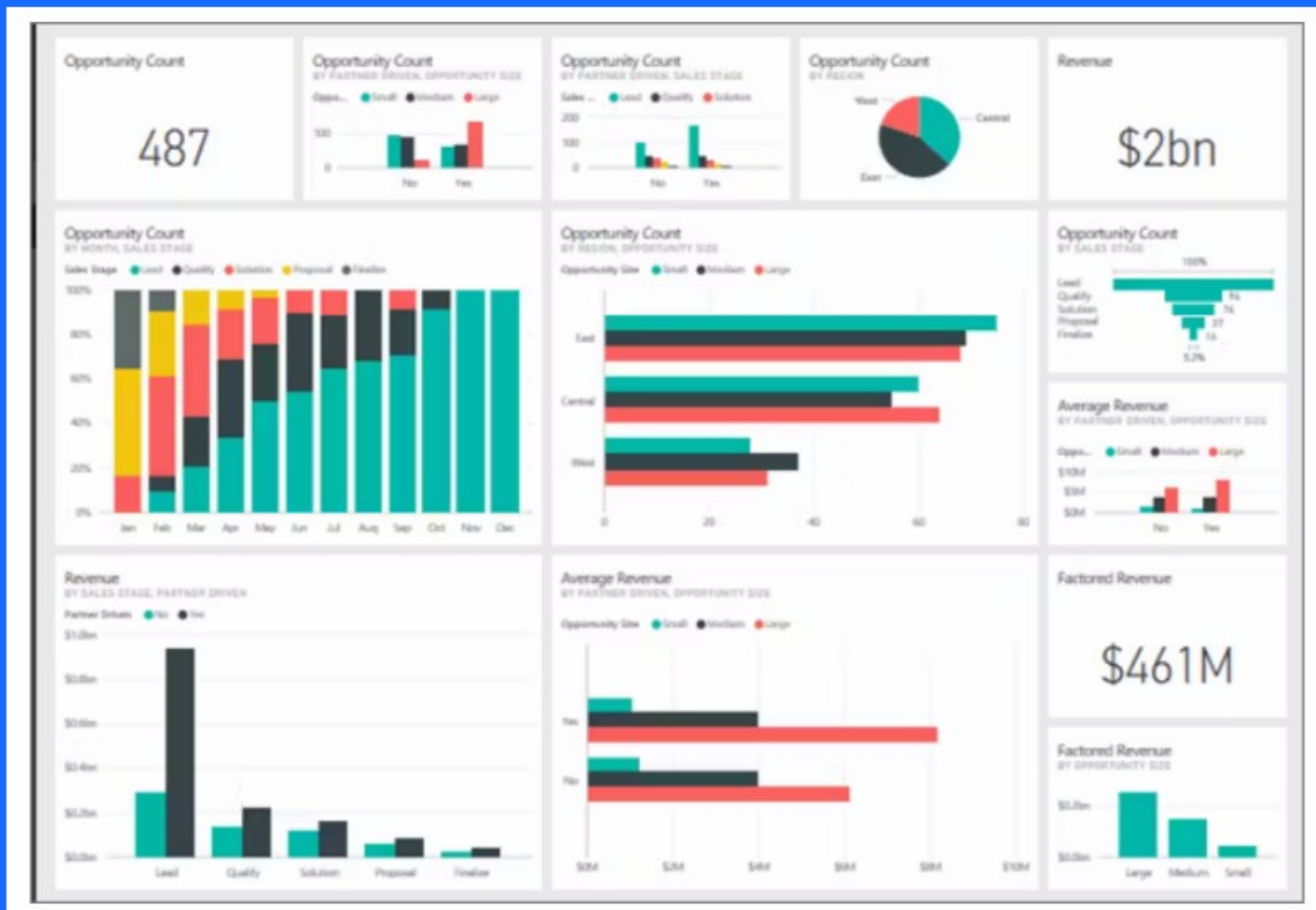
- Access: Front line staff for internal outreach programs
- Answer the question, "What times and places are busiest with activity? Where do we go to deploy our front-line resources to be more efficient?"
- Data sources: Operational data
- Frequency: Weekly, Monthly



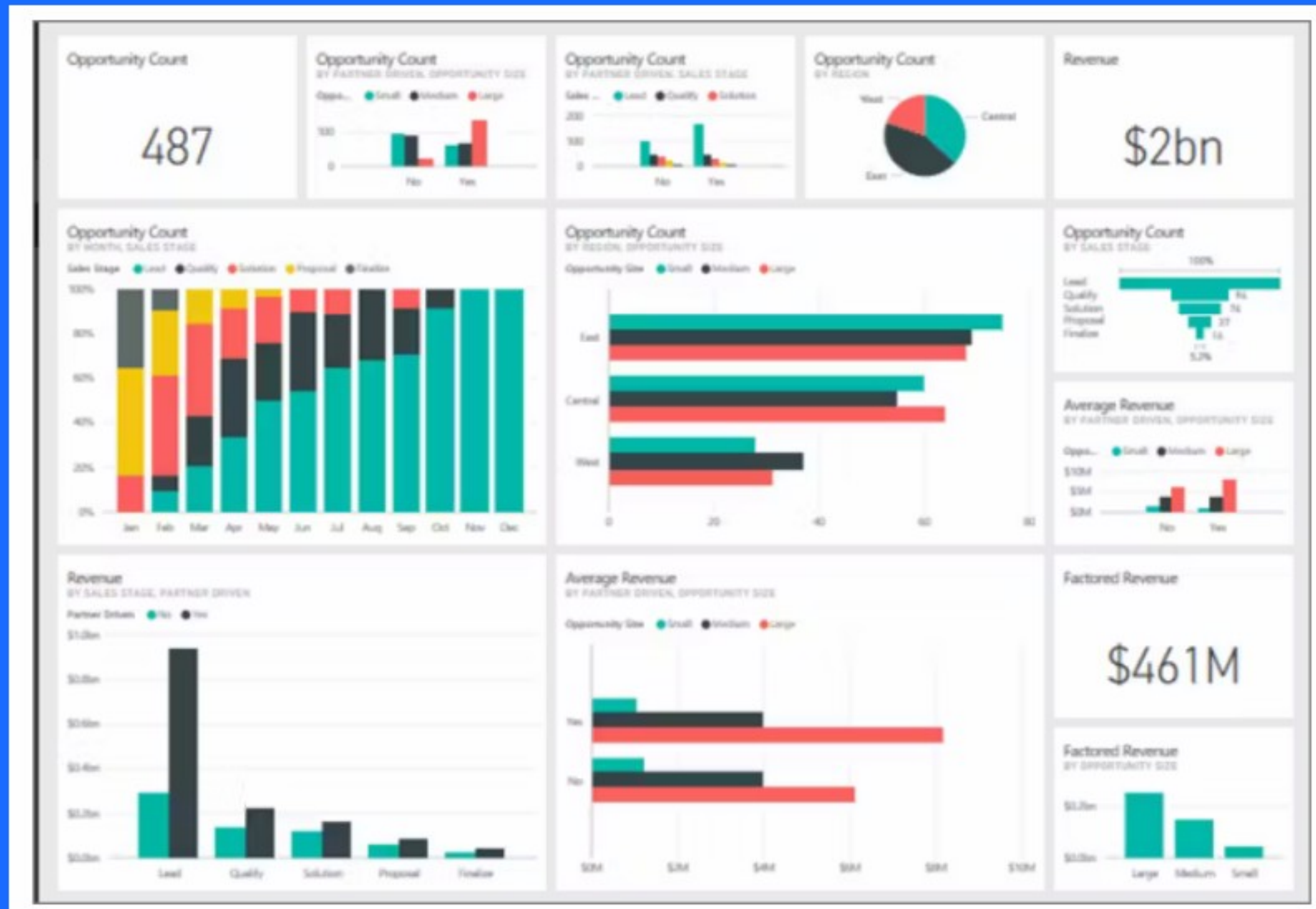
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Sales in Thousands (USD)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2	2010	45	57	59	64	70	81	90	83	75	68	59	50	
3	2011	60	58	81	71	92	82	72	48	47	58	60	64	
4	2012	72	84	99	96	94	75	61	82	81	90	65	34	
5	2013	40	74	59	84	99	58	60	59	62	94	83	28	
6	2014	68	64	53	68	45	85	49	41	76	91	87	39	
7	2015	86	67	46	51	98	69	93	84	67	62	45	20	
8	2016	47	91	60	82	93	75	58	79	95	70	85	32	
9	2017	77	73	100	82	97	77	59	52	80	52	94	42	
10	2018	71	50	91	51	81	97	49	80	68	69	75	25	
11	2019	69	54	47	100	89	97	98	75	69	52	79	27	
12	2020	86	49	59	75	79	44	70	48	91	68	71	31	
13	2021	40	49	65	75	80	74	82	92	73	60	40	30	
14														

Data Product 3: Heat Map in Excel

- Heat maps do not need to always be geospatial. Update colouring in an Excel spreadsheet can create a tabular heat map.
- e.g. Time of day that is busiest



Dashboard Product 4: Critical Incident Power BI Dashboard



- Access: Community crisis team - staff only (internal)
- Problem to solve: Improve operational intelligence and monitoring. Review metrics and activity. Respond to requests more efficiently.
- Data sources: Internal database
- Digital format: Microsoft Power BI
- Frequency: Daily



Where have you seen data used to address community safety and wellbeing?



Metrics communicated to the public, report, Council, etc.



Data used in day-to-day operations intelligence briefings



Long-term data to make decisions for strategic planning



Evaluation of a community safety project



Population metrics, monitoring KPIs



Infographics and other data viz

Community- driven Data Governance



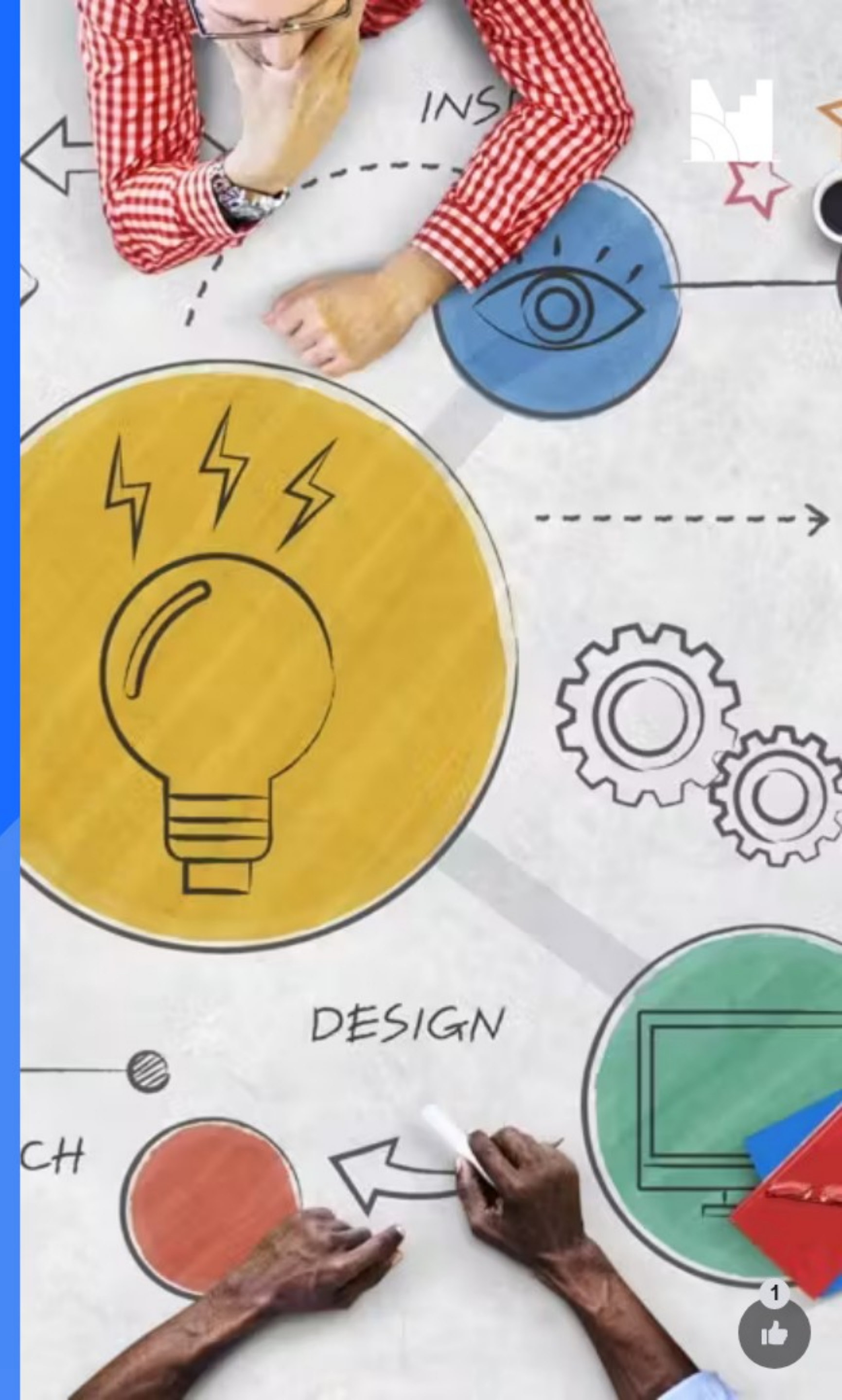


How can governments build effective community data partnerships to ensure ethical data collection, analysis and storytelling?

Creating a Community Data Infrastructure

At SCALE, we define community data governance as the ethical infrastructure and community partnerships that action how socio-demographic data is analyzed, collected, stored and protected.

Community Data Governance allows us to build sustainable pathways to ensure the management and use of data aligns with the interests, needs and goals of individuals most impacted.





Five Ingredients for Data Empowerment



Trust and Consent

Residents, partners and staff need to understand and trust that data will be used ethically and privacy protected.



Accessible Open Data

Collaborating with partners and sharing data means more perspectives, ideas, and solutions.



Real-Time Strategic Insight

The use of data to inform daily decisions builds data maturity and confidence to use data to improve programs.



Advanced Analytics

Data mature partners who are willing to integrate data can use advanced statistics to identify systems-changing interventions.



Good Data Infrastructure

User friendly digital tools that support well-defined workflows make it easier to collect relevant data and then analyze it.



What we learned from sector partners



- Transparent use of data across multiple sectors
- Address concerns about data increasing surveillance and enforcement
- Create an infrastructure and tools for data to contribute to violence prevention planning
- Research and data collection should contribute to clear population equity outcomes



**ENGAGEMENT, GOVERNANCE,
ACCESS, AND PROTECTION (EGAP)**

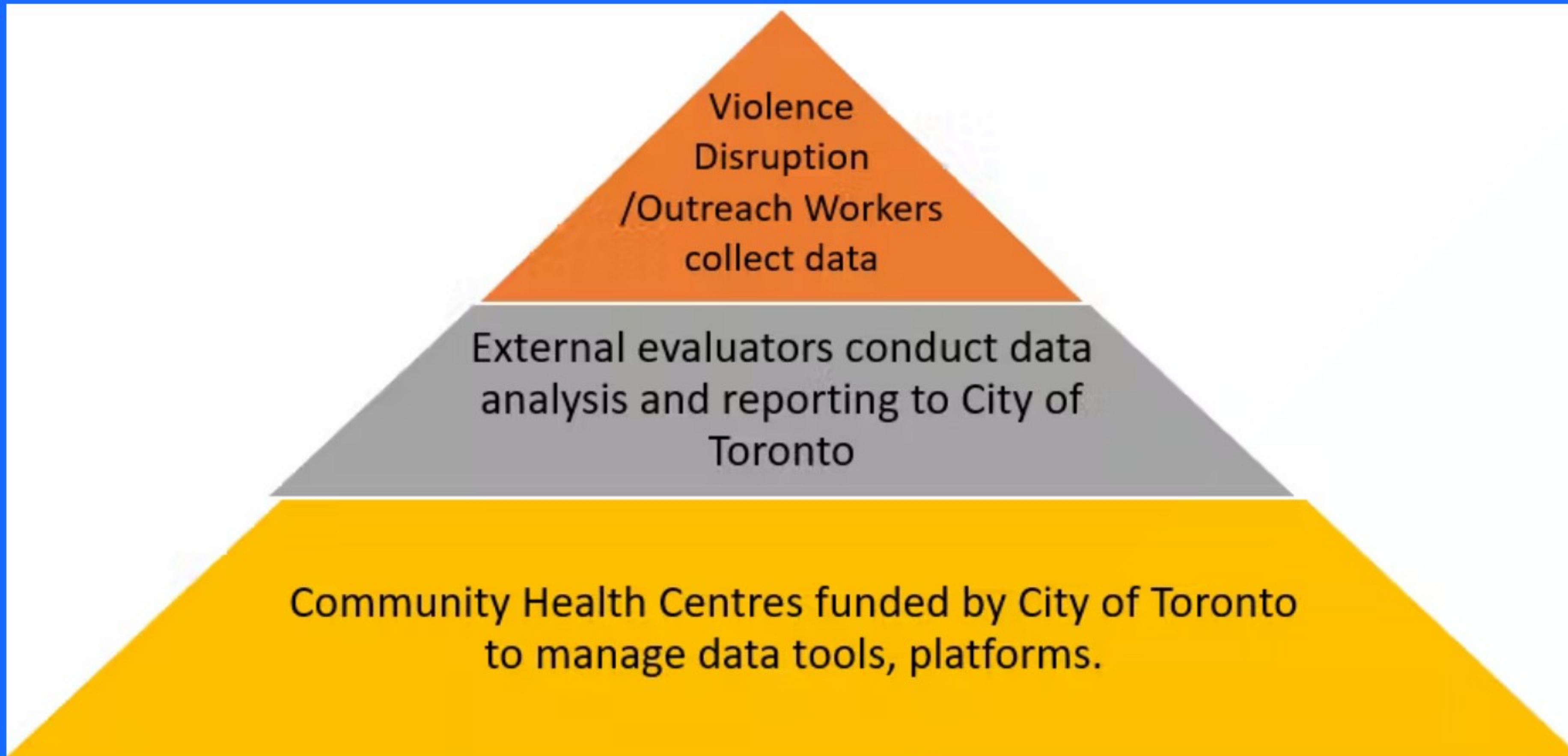
A Data Governance Framework
for Health Data Collected from
Black Communities in Ontario

EGAP



OWNERSHIP • CONTROL • ACCESS • POSSESSION
PROPRIÉTÉ • CONTRÔLE • ACCÈS • POSSESSION™

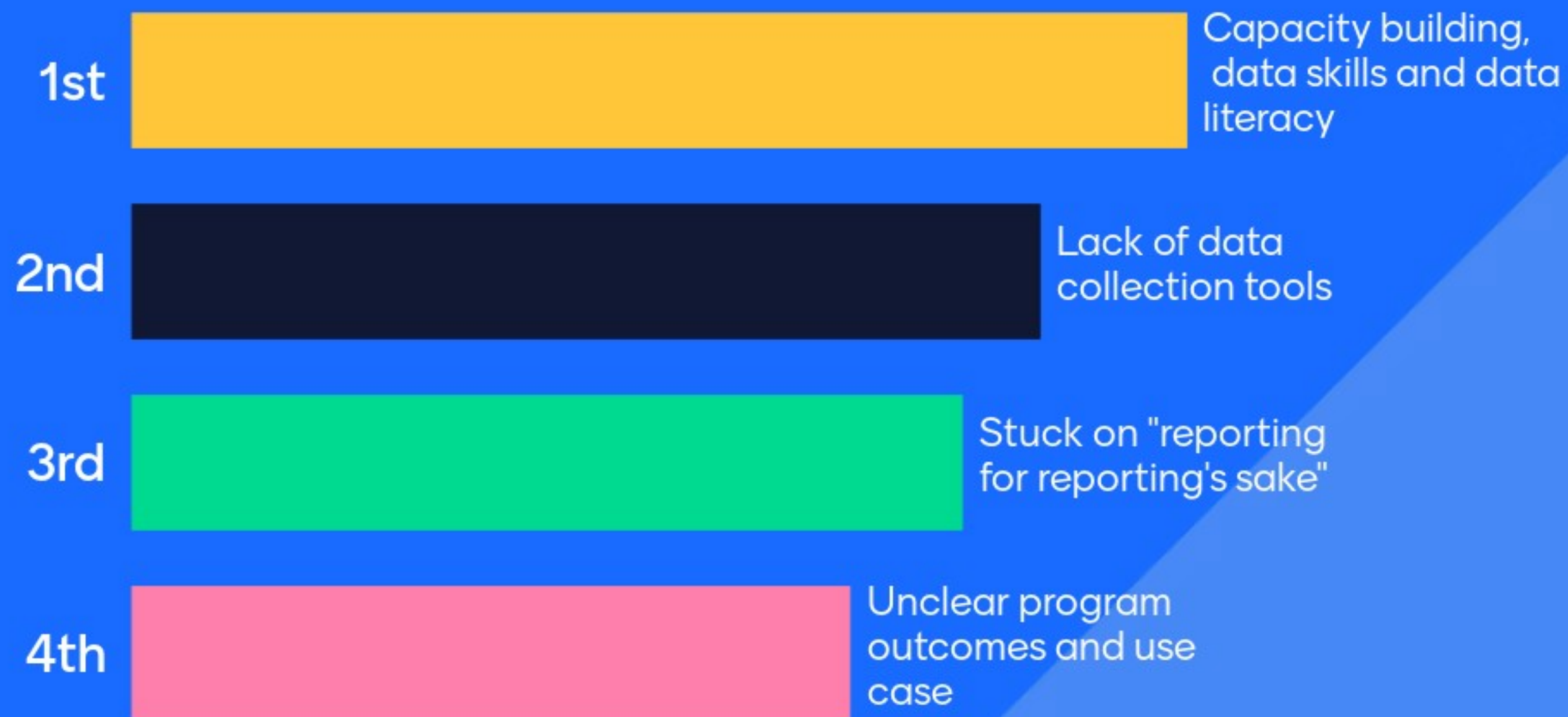
Guiding Frameworks for Data Governance



Violence Interruption Data Collection Model



What are the biggest barriers for social service agencies to using data effectively?





Thank you so much!

City of Toronto

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