The use of data to design, test and scale programs and policies that improve citizen security

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Crime and Justice Policy Lab

The Mission of the Crime and Justice Policy Lab (CJP) is to help governments and communities by using research to support innovation of new policy solutions.

Some examples of our work:

- United States:

    - Illegal firearms trafficking
    - Focused deterrence
    - Partnerships with District Attorney's Offices

- International Projects:

    - Collaborative Action Research Model: work in ten Caribbean countries
    - Civic Justice Model in Mexico

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The Importance of Data

Data is essential to effective programs and policies

- Characterize the problem

    - Identify *who* is at risk of committing and/or experiencing violence

    - Identify *where* and *when* violence is most likely to occur

    - Identify *trends* in violence over time

- Create interventions and policies based on this data

- Evaluate the effectiveness and impact of policies and programs

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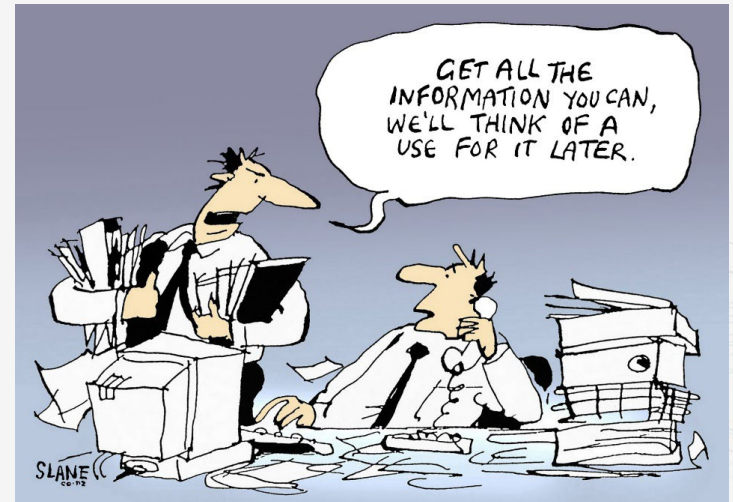info**SEGURA**

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Data Challenges: Availability and Quality

- In both the United States and in international contexts, we have seen:

  - Incomplete or inconsistent data collection

  - Data that is not available in digital form

  - Separate datasets that do not interface well

  - Inconsistent or unclear definitions

- Efforts to standardize and coordinate data efforts are vital to improving research, programming, and policy

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Data Challenges: Data Without Strategy

Even when more data are available, this doesn't necessarily translate into better research or policy

- Unnecessary data collection
    - Waste of time and resources
    - Unnecessary privacy risks

- Key questions are overlooked, and important data is not collected

- Data used may be a poor match for research questions

- Unclear *why* an intervention succeeds or fails, or even *how* it was conducted in practice

GET ALL THE INFORMATION YOU CAN, WE'LL THINK OF A USE FOR IT LATER.

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Why Strategy is Important

A domestic violence hotline is set up in Kenya

Reuters: Hotline, 'gender champions', tackle violence against girls in drought-hit Kenya

"Our understanding is that the hotline has been well received and **police records** have shown a steady increase in the number of **convicted rape cases** since it was launched in 2015, from zero in 2014 to 31 in 2017, **which have been attributed to the hotline.**"

A community member texts journalists

The [24-hour hotline] has a problem

A deeper investigation of the hotline:

- Out of order for months at a time
- Most local people had never heard of it
- The number was hard to remember
- Reports not shared with police or sent to the wrong agency
- Insufficient funds to sustain it
- A dedicated local paralegal was likely behind many of the successful convictions
- The police already had a gender-based violence hotline

Source: Devex, "What Went Wrong?: Perspectives on Failed Aid."

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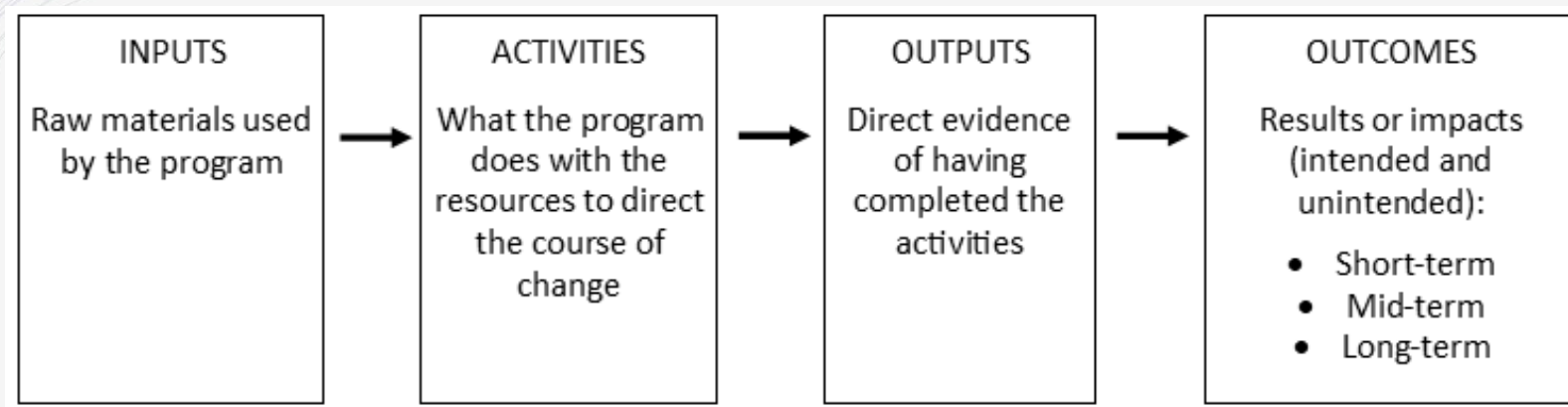
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Incorporating Strategy

There are many strategic tools that can be used for program or policy **planning, implementation, monitoring, and evaluation**

- Problem analysis

- Needs assessments

- Asset mapping

- Stakeholder mapping

- Theories of Change (TOC) and Logic Models (LM)

"I think you should be more explicit here in step two."
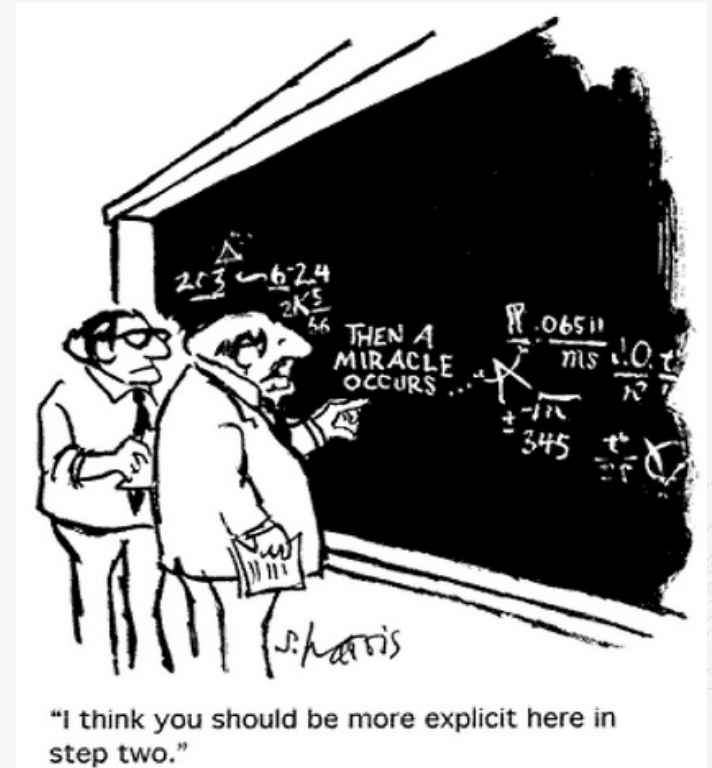
Theory of Change (TOC) and Logic Model (LM)

Tools that provide a visual depiction of how your program should work

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES
Raw materials used by the program	What the program does with the resources to direct the course of change	Direct evidence of having completed the activities	Results or impacts (intended and unintended): • Short-term • Mid-term • Long-term

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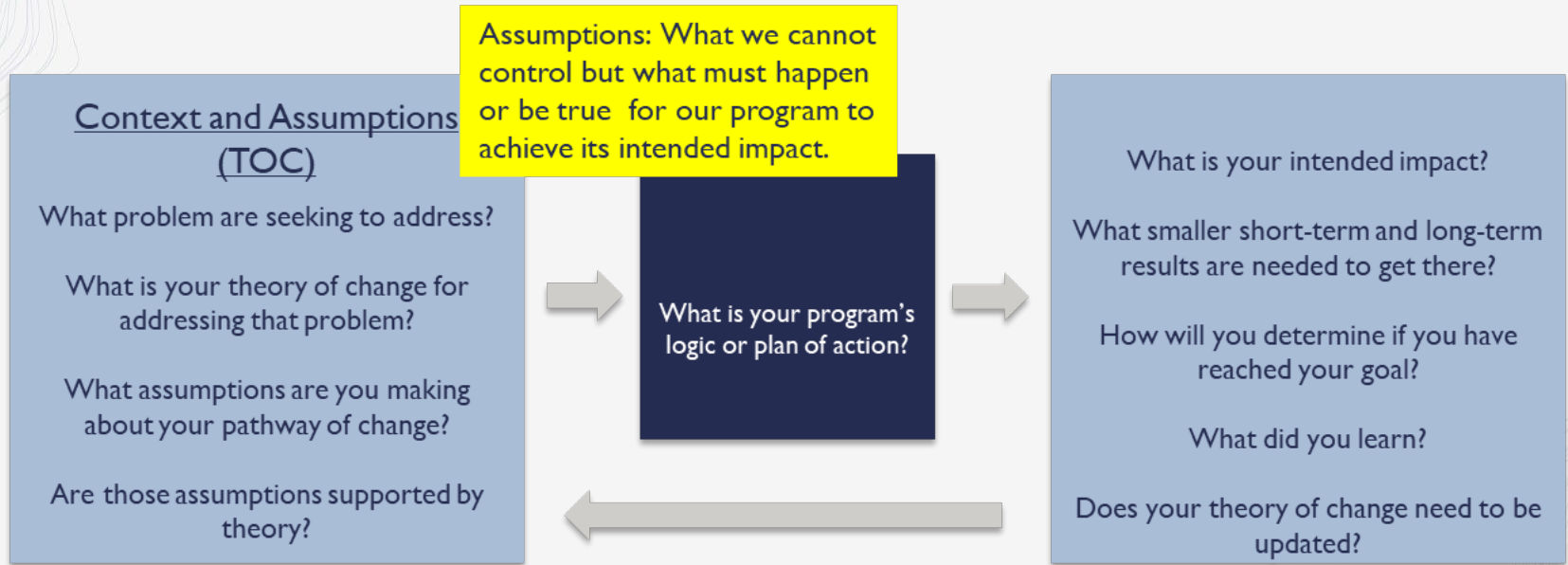FROM THE AMERICAN PEOPLE

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Theory of Change (TOC) and Logic Model (LM)

- Theory of Change usually starts with your goal before deciding what programmatic approaches are appropriate

- TOCs define your pathway of change and explain *how* and *why* the desired change is expected to come about

- TOC include assumptions and evidence (when available)

- LMs usually start with a program and illustrate its key components

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Theory of Change: Context and Assumptions

Context and Assumptions (TOC)

What problem are seeking to address?

What is your theory of change for addressing that problem?

What assumptions are you making about your pathway of change?

Are those assumptions supported by theory?

Assumptions: What we cannot control but what must happen or be true for our program to achieve its intended impact.

What is your program's logic or plan of action?

What is your intended impact?

What smaller short-term and long-term results are needed to get there?

How will you determine if you have reached your goal?

What did you learn?

Does your theory of change need to be updated?

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Theories of Change and Evaluation

SUCCESSFUL INTERVENTION

INPUTS → ACTIVITIES → OUTPUTS → OUTCOMES → GOAL

IMPLEMENTATION FAILURE

Process Evaluation

INPUTS ✕ ACTIVITIES ✕ OUTPUTS → OUTCOMES → GOAL

THEORY FAILURE

Outcome/ Impact Evaluation

INPUTS → ACTIVITIES → OUTPUTS ✕ OUTCOMES ✕ GOAL

SOURCE: THEORY OF CHANGE, KRISHNAN

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Why Are These Tools Important?

Many uses:

- Avoid common pitfalls in planning
- Set priorities and allocate resources
- Improve staff and stakeholder engagement ("shared vision")
- Identify indicators
- Monitor progress
- Enhance accountability

More about Theory of Change, Logic Models, and other strategic tools:

https://ctb.ku.edu/en (English)

https://ctb.ku.edu/es (Español)

COMMUNITY TOOL BOX

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Goal: Reduce Gun Violence in Philadelphia

- Fatal shootings have nearly doubled since 2016

- Heavily concentrated in communities of color

- Philadelphians cite "crime, drugs, and public safety" as their top concern

- Only 44% of residents say they feel safe at night

Emma Lee/WHYY

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Place-Based Interventions

Previous research has shown that addressing signs of disorder (such as litter, graffiti, poorly maintained physical spaces) can reduce violence

Philadelphia study: 541 lots randomized to treatment (cleanup) or control

Areas near treated lots saw:

- 13% reduction in overall crime
- **29% reduction in gun violence**
- 21% reduction in burglaries
- Significant increases in resident reported feelings of safety
- Increased use of outdoor social spaces

Before

After

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Proposed New Study

Research Questions:

- Does **basic street cleaning** (such as trash removal, weed trimming, leaf blowing, and sidewalk sweeping) impact rates of gun violence?

- What is the ideal frequency/dosage of street cleaning for violence reduction?

- Is street cleaning cost effective for violence reduction?

Study Type:
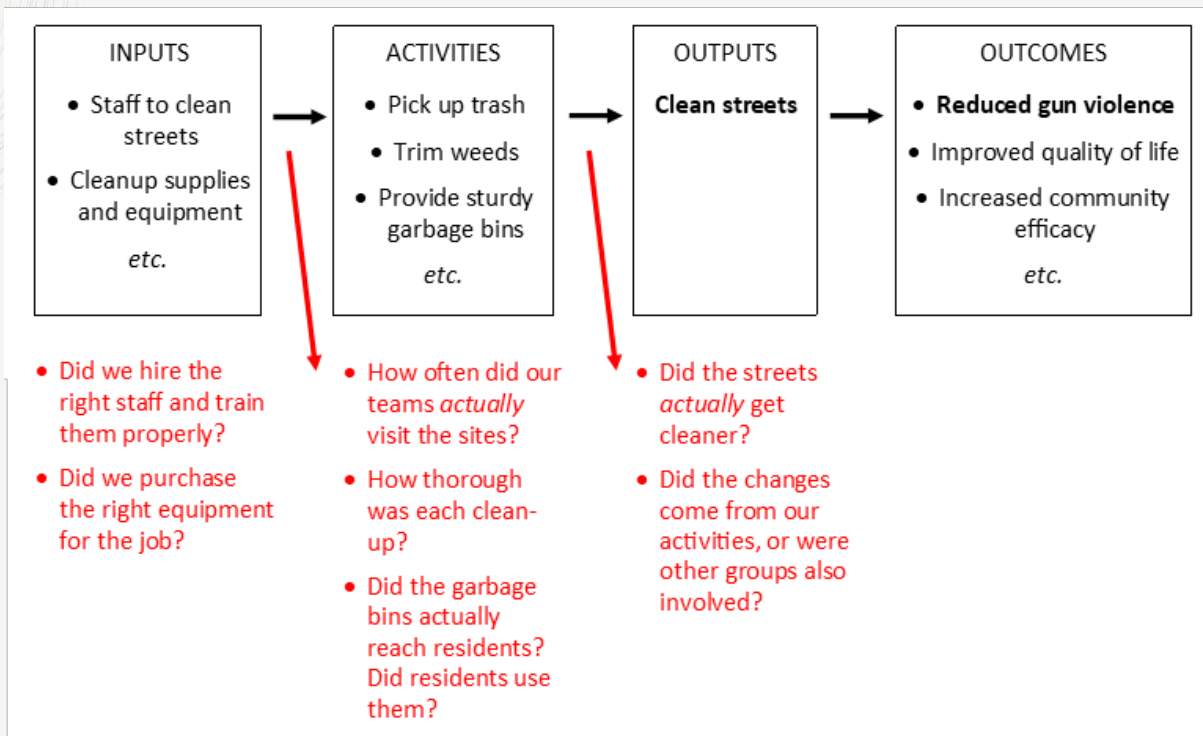
- Mixed-Methods with a Randomized Controlled Trial

Goals:

- Contribute to body of evidence on place-based interventions

- Provide *policymakers* with information about whether and how to adopt this strategy to reduce gun violence

- Provide *implementers* with detailed information on how to do this intervention effectively

Planned Intervention: Logic Model

Assumptions

INPUTS		ACTIVITIES		OUTPUTS		OUTCOMES
• Staff to clean streets • Cleanup supplies and equipment *etc.*	→	• Pick up trash • Trim weeds • Provide sturdy garbage bins *etc.*	→	**Clean streets**	→	• **Reduced gun violence** • Improved quality of life • Increased community efficacy *etc.*

- Did we hire the right staff and train them properly?
- Did we purchase the right equipment for the job?

- How often did our teams *actually* visit the sites?
- How thorough was each clean-up?
- Did the garbage bins actually reach residents? Did residents use them?

- Did the streets *actually* get cleaner?
- Did the changes come from our activities, or were other groups also involved?

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Finding the Necessary Data

For every research question, we asked ourselves:

1. What data already exist?

2. Will the existing data meet our needs?

3. What data do we need to collect ourselves?

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Examples of Data Collection

Research Question	Existing Sources of Data	Will it meet our needs?
Did we hire the right staff and train them properly? Did we purchase the right equipment for the job? How often did our teams actually visit the sites? How thorough was each cleanup?	Internal documentation: • Hiring and training processes • Receipts of purchased items • Cleanup schedules	No- does not tell us: • What happened in *practice* • How the intervention felt from the perspective of staff

Data to Collect:
Interviews with staff

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Examples of Data Collection

Research Question	Existing Sources of Data	Will it meet our needs?
Did the streets actually get cleaner?	 • Google Street View images • Opinion surveys • 2018 City of Philadelphia litter index	No, they all have shortcomings: • Not taken often enough • Not geographically specific enough, and risk subjectivity • Validated, but out of date

Data to Collect:
Observational Site Visits

Examples of Data Collection

Research Question	Existing Sources of Data	Will it meet our needs?
Did the changes come from our activities, or were other groups also involved?	• City of Philadelphia websites • Information from our partners on other places they are doing work • Social media	Partly: these will likely capture most *official* efforts but will miss *informal* cleanups

Data to Collect:
Focus Groups, Interviews, Community Engagement

Examples of Data Collection

Research Question	Existing Sources of Data	Will it meet our needs?
Did gun violence change in intervention blocks relative to control blocks?	• Police department data: Shootings • Police department data: Weapons Assaults	Yes: • High geographic specificity • Detailed information • Validated by hospital data

No need to collect additional data

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PRE-INTERVENTION
- Literature review
- Opinion surveys
- **Focus groups with community mem-bers**
- Budgets and plans from previous cleaning interven-tions
- Power analysis (how many blocks we must study)

INPUTS
- Staff to clean streets
- Cleanup supplies and equipment

  etc.

- Itemized lists of purchased items
- Internal documents related to hiring and training

ACTIVITIES
- Pick up trash
- Trim weeds
- Provide sturdy garbage bins

  etc.

- Cleanup Schedules
- **Interviews with staff members**

OUTPUTS
Clean streets

- **Interviews with staff members**

OUTCOMES
- Reduced gun violence
- Improved quality of life
- Increased community efficacy

  etc.

- Police data on shootings and weapons assaults
- 311 Reports (administrative data of citizen complaints)
- **Interviews with community members**

FULL STUDY →
- Local media
- **Community visits**
- **Observational data (litter and sidewalks)**

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What Did This Accomplish?

Having gone through this process, we have now:

- Ensured that we are measuring what is *actually* happening as opposed to what we *think* we are doing

- Defined *indicators* to monitor our progress

- Identified all of the data sources that we will likely need, so we don't discover later that we missed something

- Prioritized our resources to collect only the data that is necessary

- Ensured that we are collecting the *right* data to answer our research questions

- Included data sources that will give us insight into *how* and *why* the intervention does or does not work

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Citywide Level: Baltimore

Ideally, cities should have a **citywide theory of change** for gun violence reduction, with **each relevant program and policy** having its own theory of change

In Baltimore, all of the following interventions are planned or underway:

- Group Violence Reduction Strategy (GVRS)/Focused Deterrence

- Community Violence Intervention (CVI) programs

- Hold gun traffickers and straw purchasers accountable

- Expand victim services to gunshot survivors

- Violence Intervention and Prevention Programs for Youth

- And more…

Source: Baltimore City Comprehensive Violence Reduction Plan

Takeaways

- Grounding data collection and use in **strategic tools** (such as a Theory of Change) improves the changes that your intervention or policy will succeed

- Even if your intervention or policy "fails," you will understand *why* and may have clear next steps to take

- Data can come in many forms. The knowledge held by *people* is often overlooked

- Interventions themselves can be an excellent source of data, especially when administrative data is lacking

- Whenever possible, share your data in an online repository

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