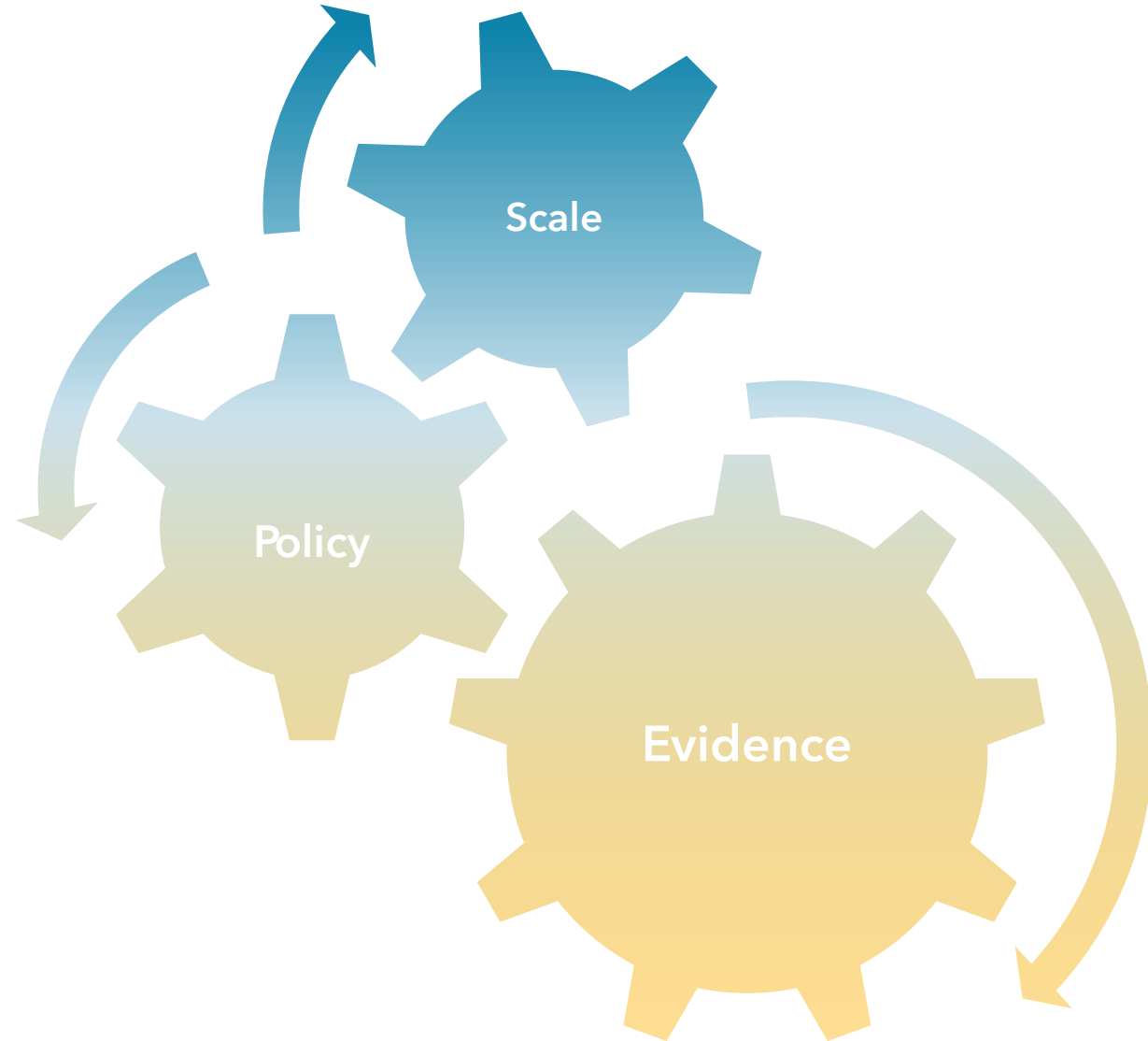
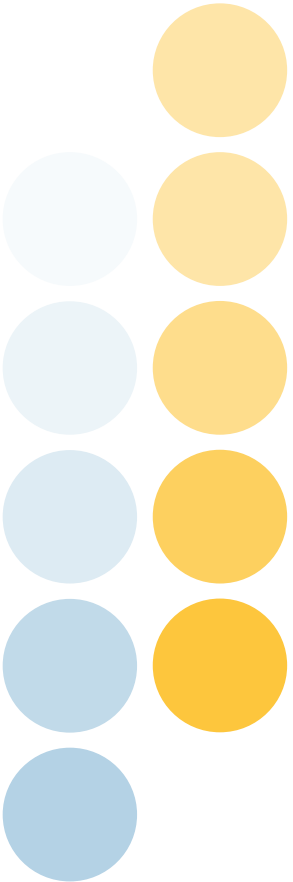


PEI Impact Evaluation Workshop

Moving Economic Inclusion to scale





Impact Evaluation and Data Systems for Achieving Impact

Marcus Holmlund

Development Impact Evaluation (DIME)

World Bank



“Only a fool tests the depth of water with both feet”

- *Nigerian proverb*

The objective:

- To **use data and rigorous evidence to overcome challenges and achieve better results**, effectively and cost-effectively
 - Diagnose the problem
 - Explore (and test!) solutions
 - Implement at scale
 - Understand who benefits, and why
 - ...
- End goal: **maximize the value-added of our resources** (financing, human resources, ...) **in improving and saving lives**

PART 1: DIAGNOSING THE PROBLEM

Road traffic deaths

- SDG 6: reduce mortality due to traffic accidents by 50% by 2030
 - No.1 cause of death ages 5-29

→ *Where* to focus efforts?

→ *What* infrastructure to upgrade?

- Sidewalks, crosswalks, railings, lighting, ...?

→ *Which* behaviors to enforce?

- Drunk driving, speeding, j-walking, ...



PART 1: DIAGNOSING THE PROBLEM

Measurement

- Measurement is understanding what is happening in the real world
 - Where and when do road crashes happen?
 - What characterizes high-risk times and locations?

- What data sources are available?
 - Official records
 - Unofficial records (e.g., social media)
 - Sensors (in situ and remote)
 - Surveys
 - ...

PART 1: DIAGNOSING THE PROBLEM

Digitizing official police records

Time

Date

Injury severity

Location

Direction of travel

REF. TC/1/14/INDO/42./2017 27/6/2017 PD

SUBJECT SELF INVOLVED SERIOUS INJURY ROAD TRAFFIC ACCIDENT PD THIS OCCURED TODAY

27/6/2017 ABOUT 01.00 AM AT LUSAKA ROUNDABOUT INVOLVING M/V REG. NO. [REDACTED] V/W

PASSAT DRIVEN BY [REDACTED] PD IT HAPPENED THAT

THE SAID M/V WAS BEING DRIVEN FROM J.K.I.A. DIRECTION HEADING TOWARDS CITY CENTRE AND ON

REACHING AT YTHE LOCATION OF THE ACCIDENT , THE DRIVER LOST CONTROL OF THE M/V , AND HIT

THE PAVEMENT AND LANDED INTO ROUNDABOUT PD DUE TO IMPACT THE M/V GOT FIRE PD AS A

RESULT THE DRIVER SUSTAINED FRACTURES ON BOTH LEGS AND WAS TAKEN TO K.N.H. WHERE HE WAS

LEFT UNDERGOING TREATMENT PD SCENE VISITED AND M/V SHELL TAKEN TO THE STATION PD CAUSE

CODE - 26 USED PD CASE P.U.I. , D.T.O. INDO/AREA DEALING PD

BT

DRAFTER – PC KANDIE


FOR D.T.E.O. INDO/AREA

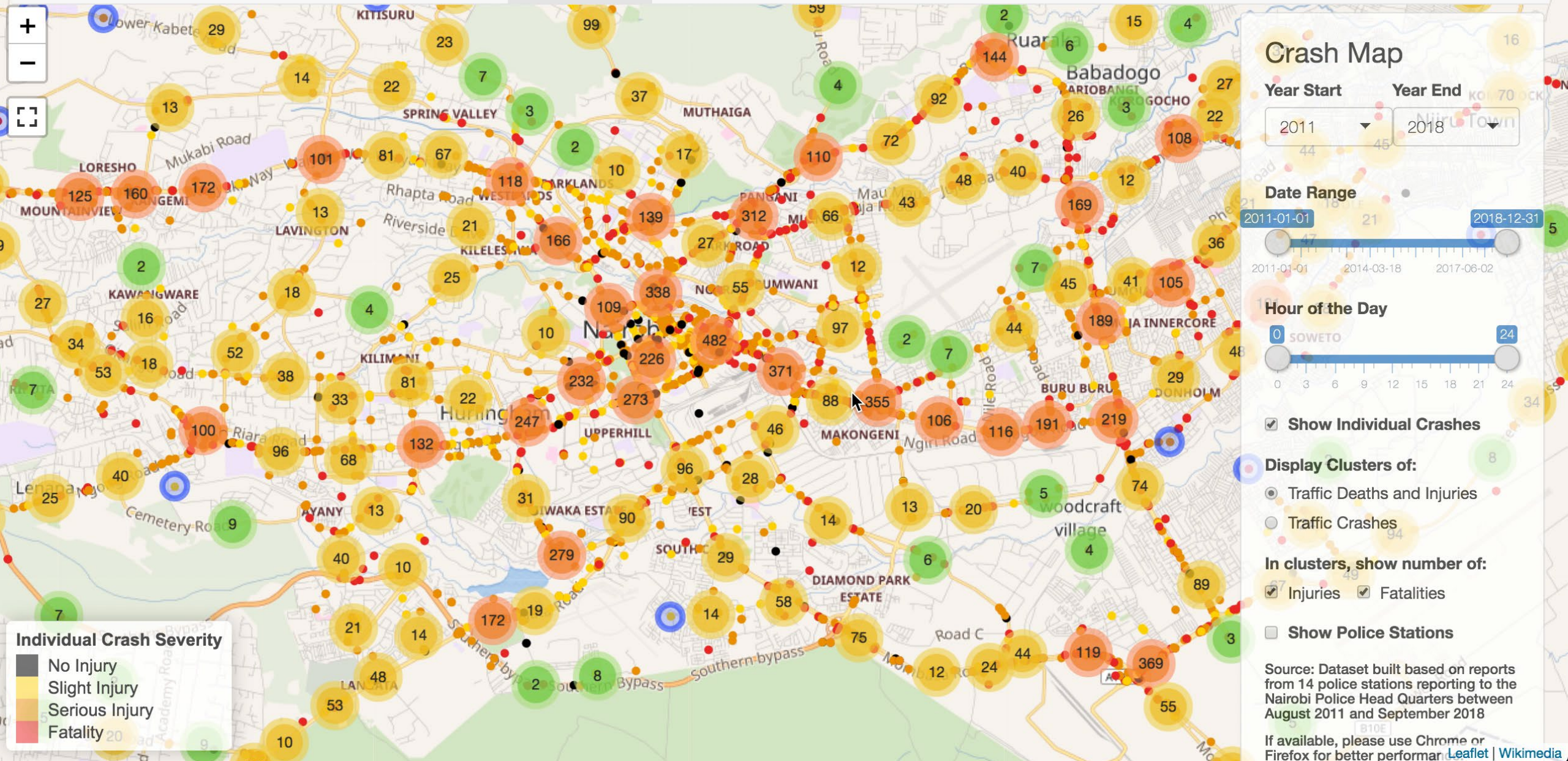
Vehicle type

Cause code of crash used by police

Number of vehicles and Injuries

Hospital taken to





PART 1: DIAGNOSING THE PROBLEM

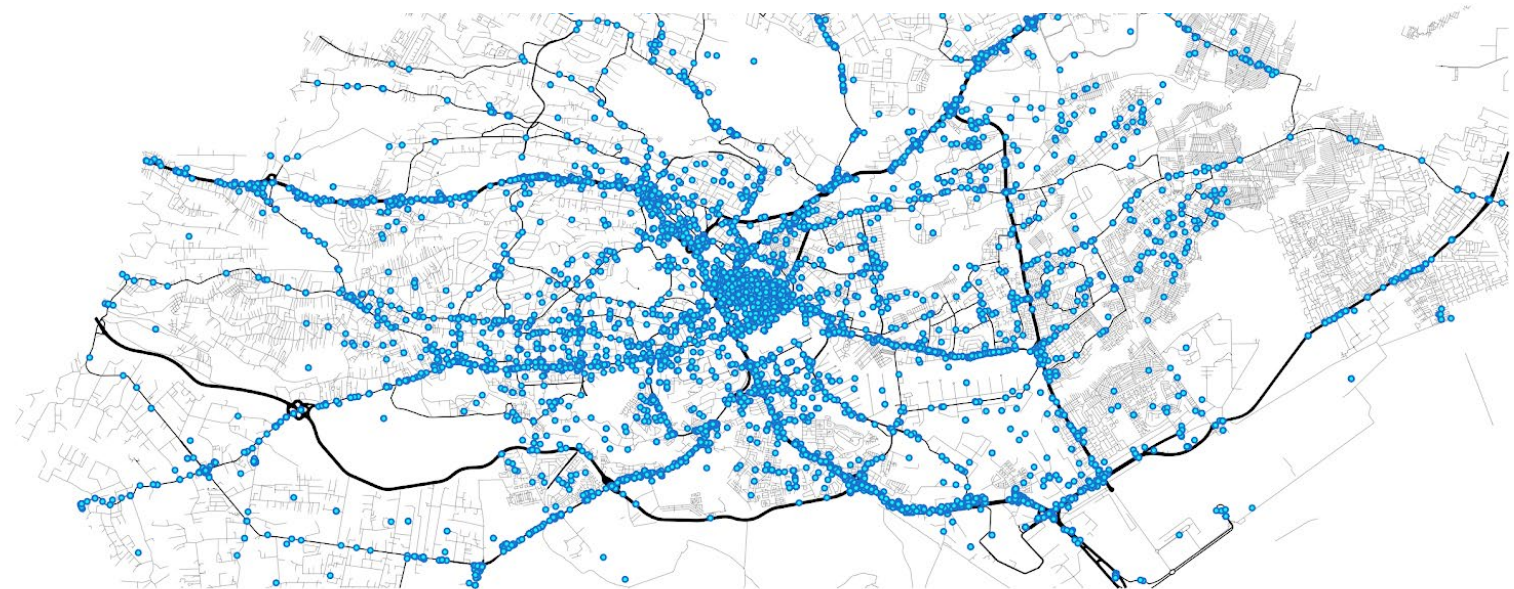
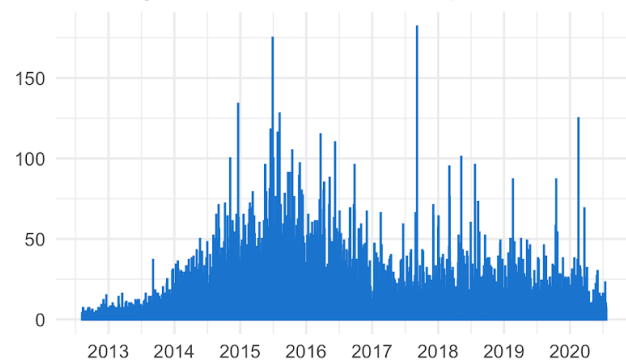
Creating live maps from tweets



Ma3Route  @Ma3Route · 1h

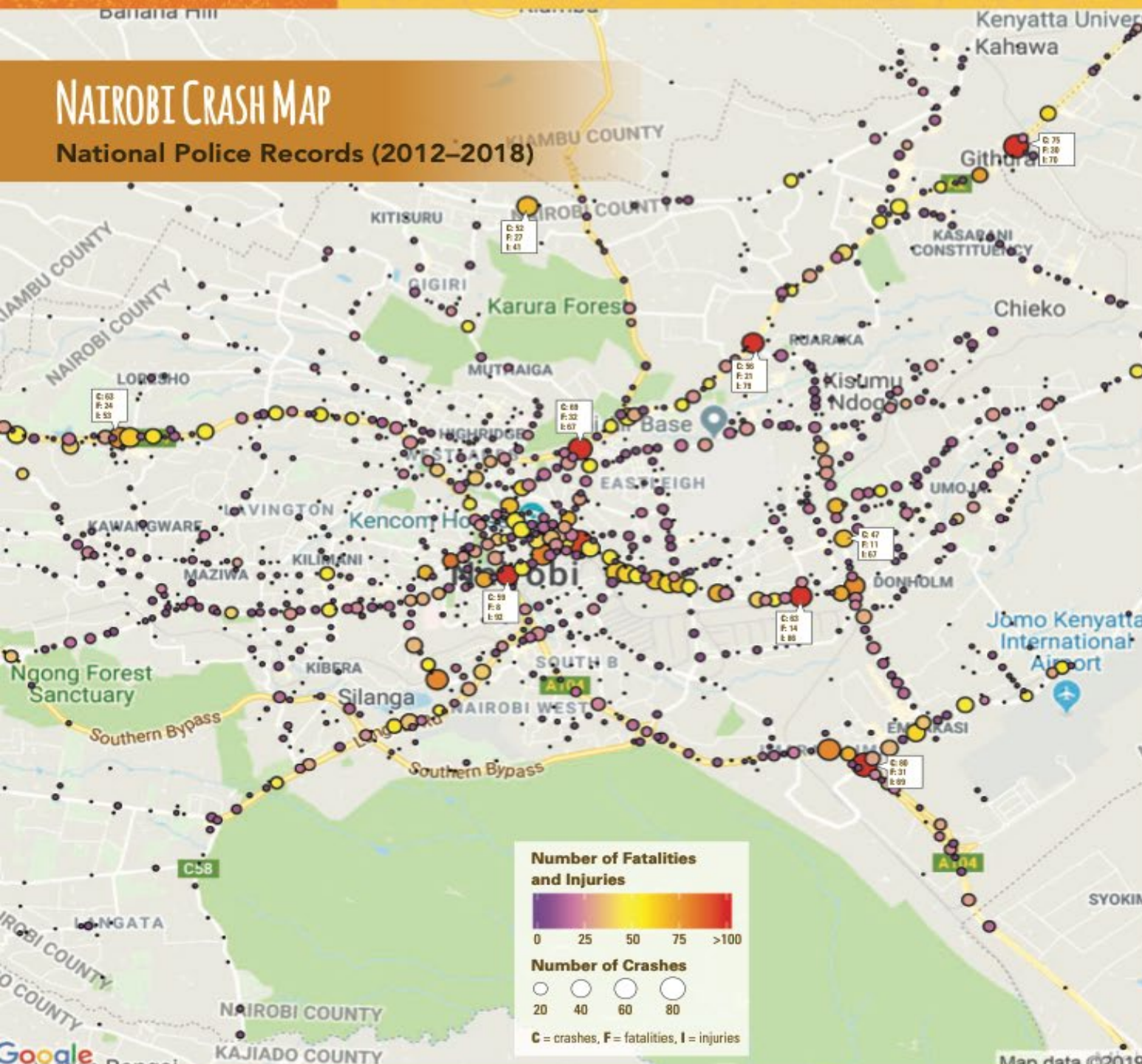
12:37 bad **accident** on **waiyaki way** next to kianda heading towards abc place

A Daily Number of Tweets that Report a Crash



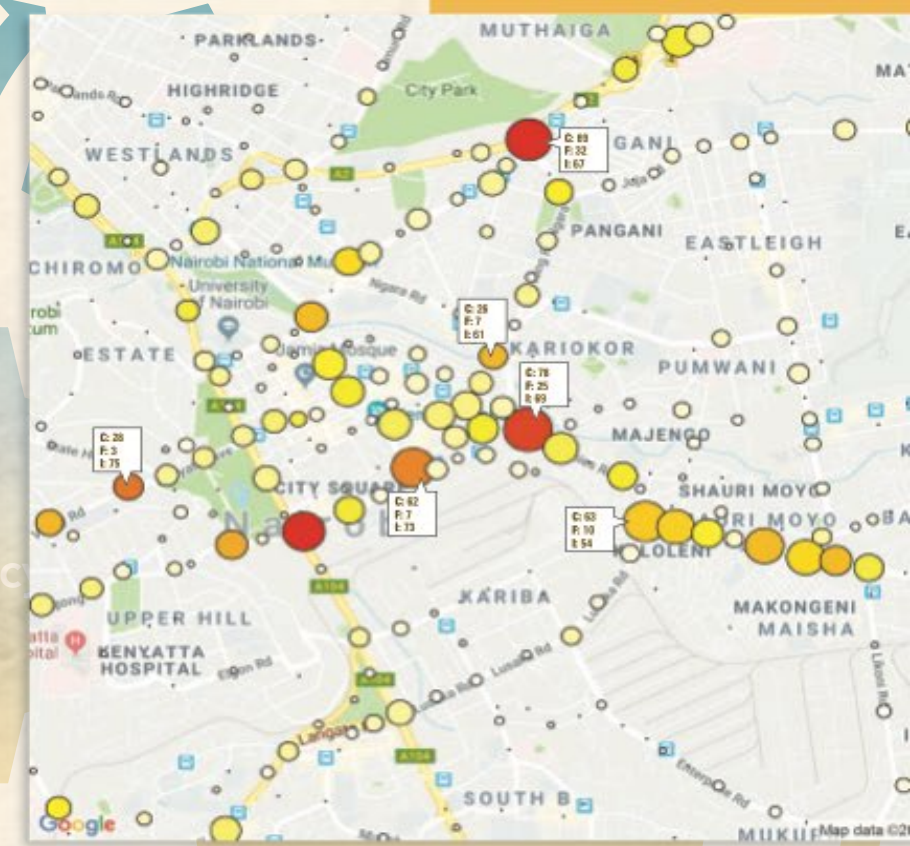
NAIROBI CRASH MAP

National Police Records (2012–2018)



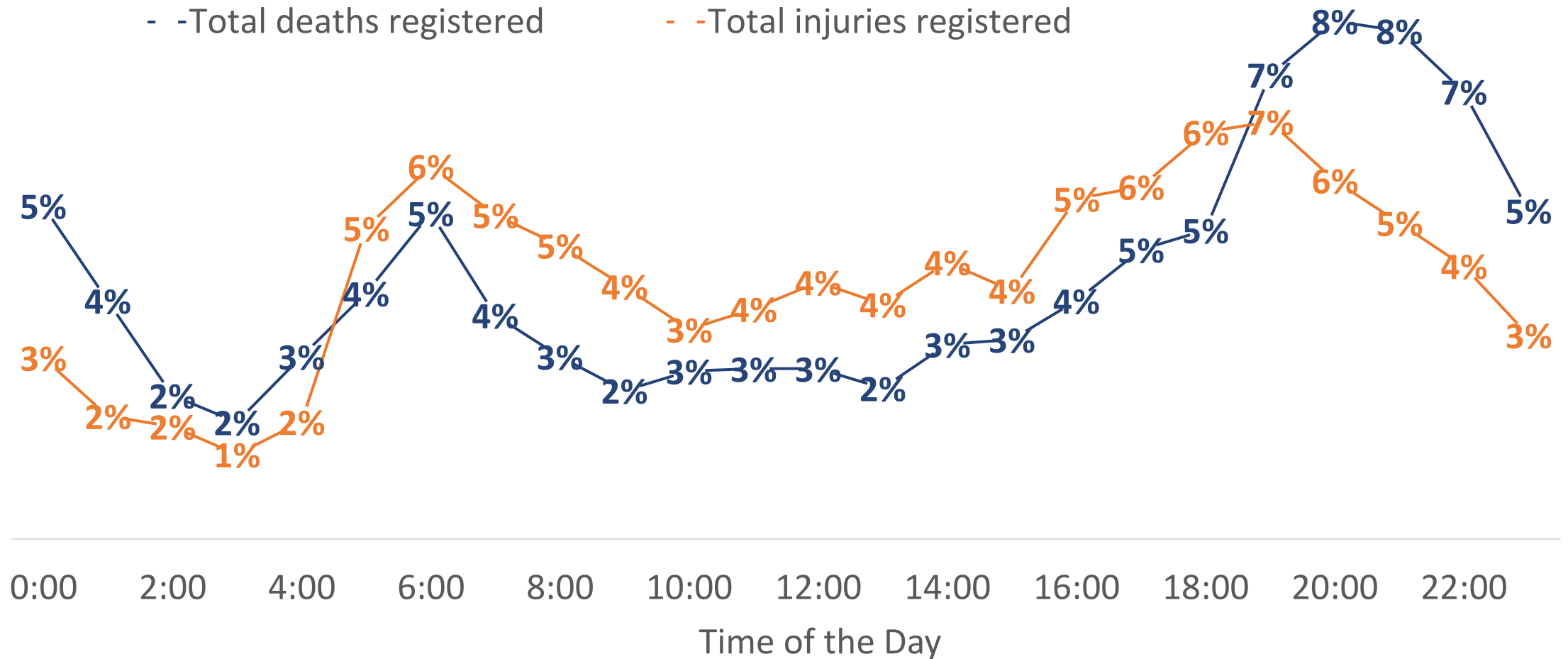
71% of road traffic deaths are **pedestrians**

CENTRAL BUSINESS DISTRICT



200 locations (blackspots) represent **52%** of crashes and **55%** of deaths

Blackspots are locations where a high number of crashes, deaths or injuries have occurred in a delimited space and time.



**41% of pedestrian deaths
occur between 7 p.m. and midnight**

PART 1: DIAGNOSING THE PROBLEM

Collecting data on risk factors

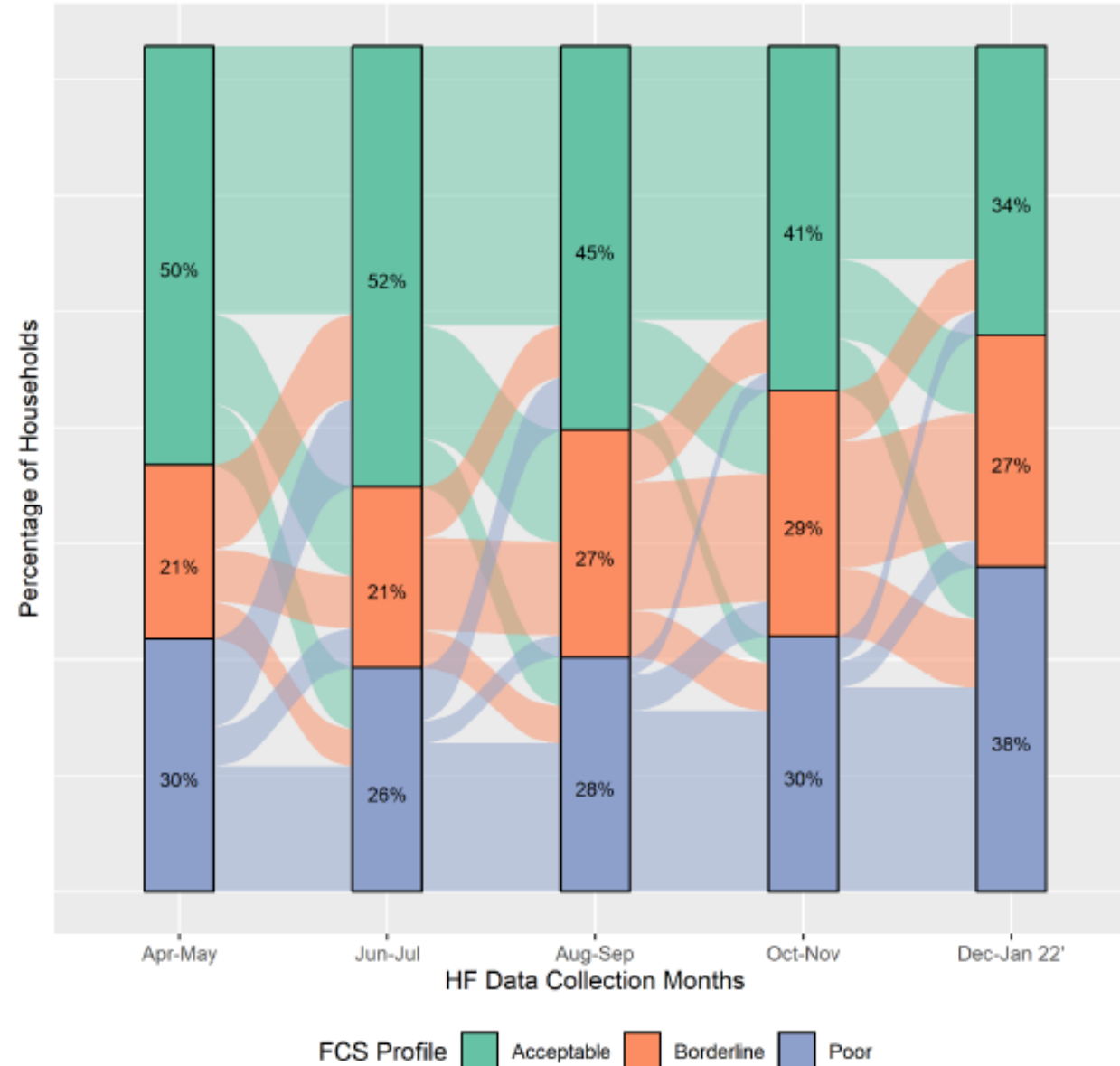
- Road infrastructure survey
- Videos recording behavior
- Uber and Waze data on speeding
- Google Maps and weather data on land use and conditions



PART 1: DIAGNOSING THE PROBLEM

In less data rich places...

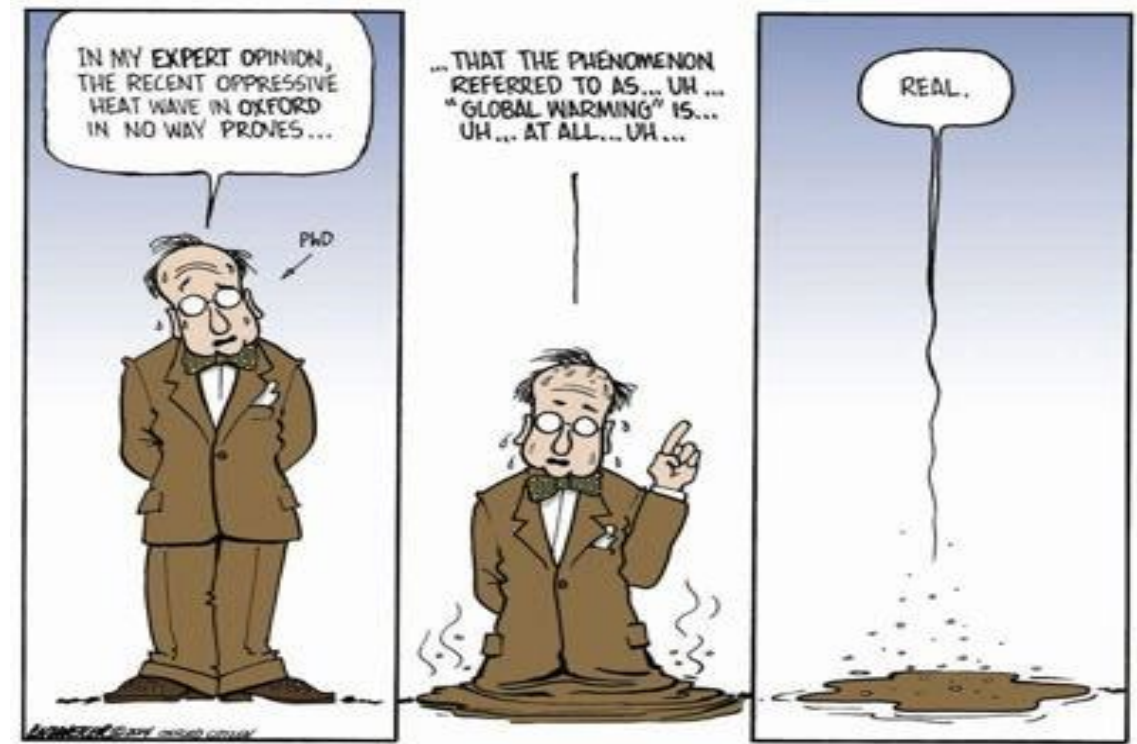
- High-frequency data collection on resilience (food security) in Mali
- Shows that which household is classified as “food insecure” depends on when this outcome is measured
- Implications for targeting and the type of support which is provided



PART 2: EXPLORING SOLUTIONS

Using field experiments to test cause and effect

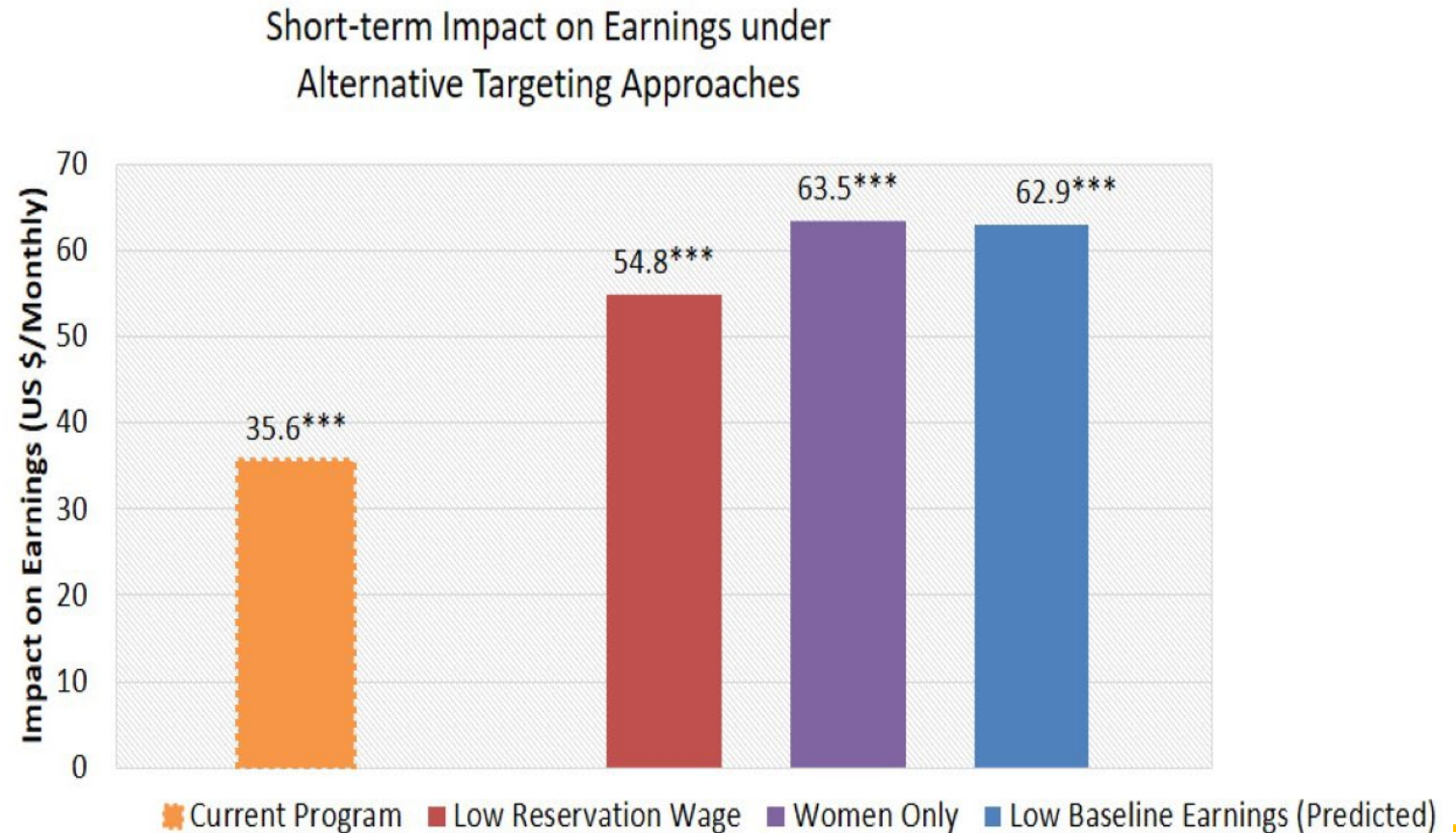
- Move from “expert opinion” to “tested solutions”
- Work with our partners to
 - Understand the problem and ask the most important questions
 - Generate data and evidence
 - And put it into action!



PART 2: EXPLORING SOLUTIONS

Targeting (in Cote d'Ivoire)

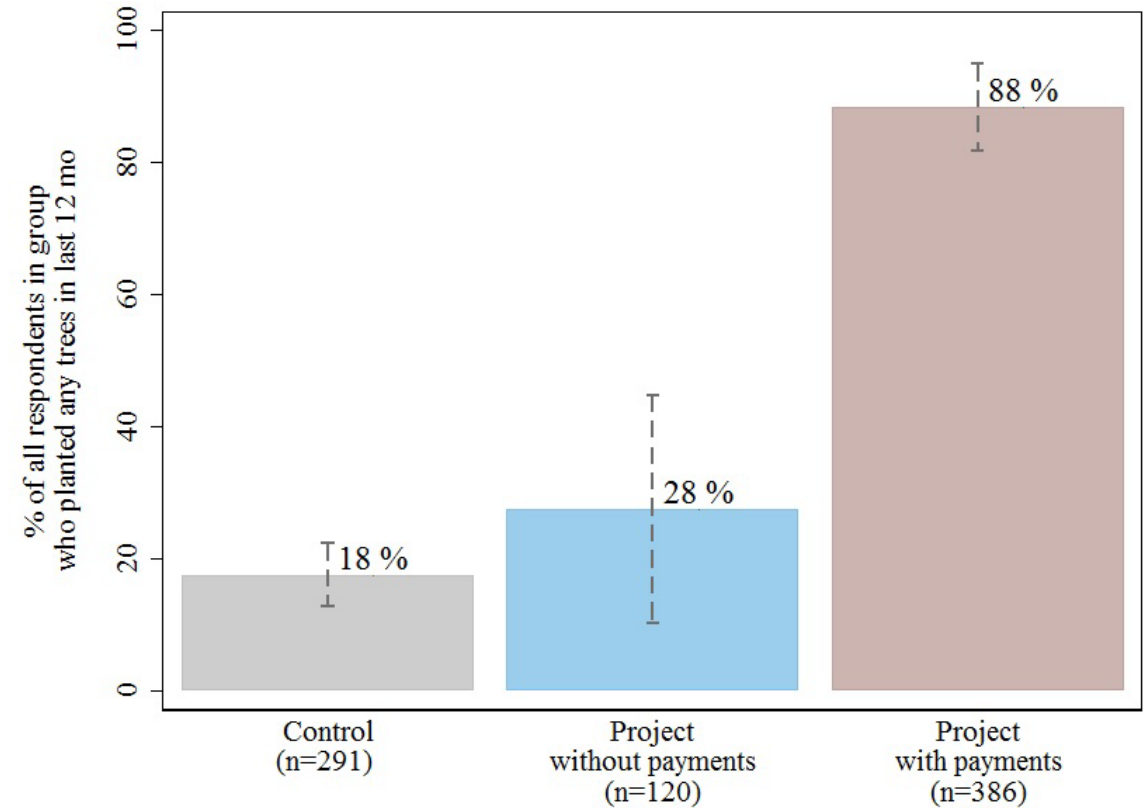
- Labor-intensive public works are a common form of social protection
- Targeting women in public works projects can **increase effectiveness by 70%**
 - Compared to standard program targeting



PART 2: EXPLORING SOLUTIONS

Take-up (in Ghana - part 1)

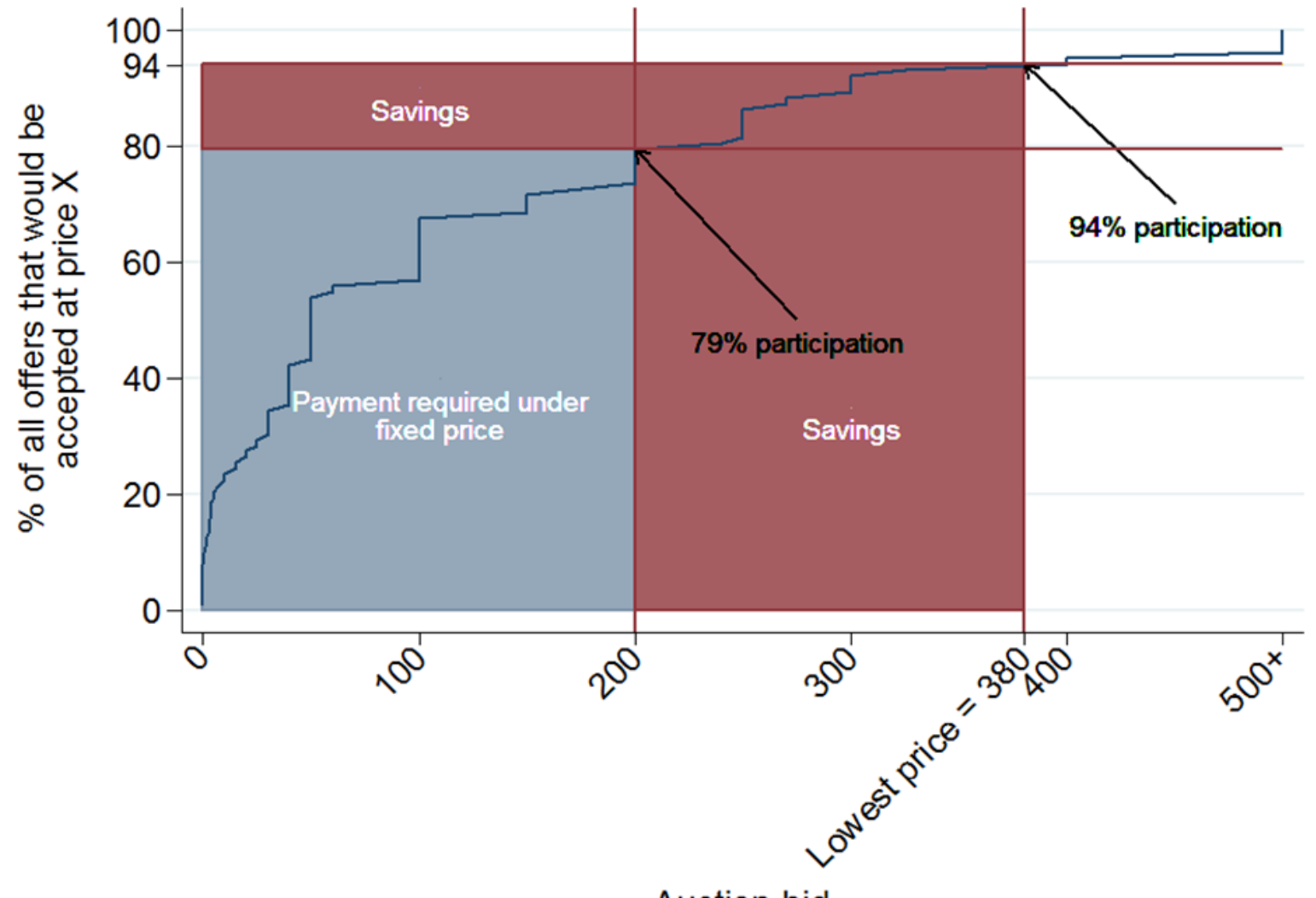
- Planting trees helps address soil erosion and contributes to farmer productivity in other ways.
- Providing financial incentives to encourage planting of (free) seedlings can **increase take-up by 300%...**



PART 2: EXPLORING SOLUTIONS

Pricing (in Ghana - part 2)

- ...and smart pricing leads to a budget-neutral **increase in coverage of 70%**
- Because “experts” set the price too high
- By decreasing price per tree (by ~50%!), program can be expanded to new areas



PART 3: IMPLEMENTING AT SCALE

Tech-based delivery (in Nigeria)

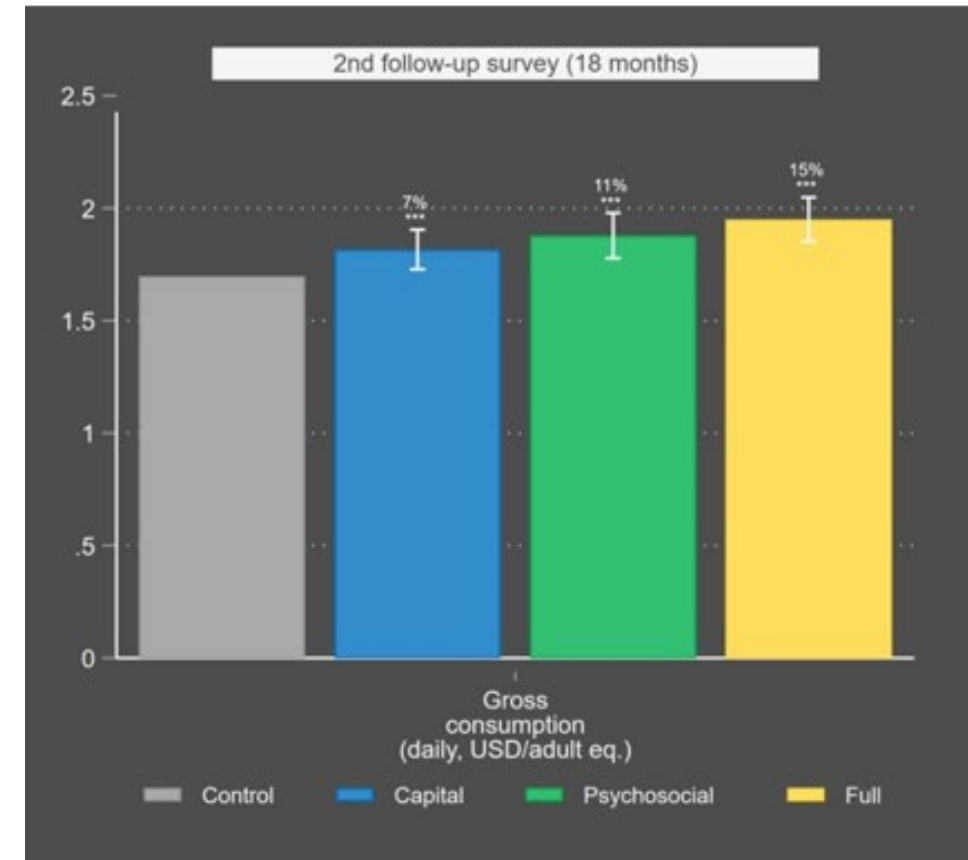
- Traditional norms and parents' attitudes are a constraint to girls' education
- Combined edutainment screenings and literacy apps **increase enrollment by 34% and improve learning outcomes**
- Screenings address harmful norms and attitudes and attempt to overturn these
- Apps provide a readily accessible and enjoyable tool to complement classroom instruction



PART 3: IMPLEMENTING AT SCALE

Leveraging government systems (in Niger)

- Multi-faceted economic inclusion program that builds on the national safety net system
- **Increases consumption and food security by 15%**
- Program **cost-effective** after just 18 months
- Alternative packages tested to understand which bundle is most effective and cost-effective.



GUIDING IDEA #1

Tackle challenges in three parts

- 1. Data.** Innovate in measurement and build data capabilities to understand the problems we are trying to solve.
- 2. Analytics.** Analyze data to find opportunities for targeting and prioritizing public resources and efforts.
- 3. Impact evaluation (IE).** Experiment with and evaluate policy interventions to increase effectiveness, document success, and justify scale-up.

GUIDING IDEA #2

Focus on what matters most

- Go beyond “Does my program work?” to ask “How can my program be most effective?”
- Be strategic in selecting evaluation questions:
 - What is innovative?
 - What matters for scalability?
 - What is strategically relevant (e.g., large budget)?
 - What will fill an important knowledge gap?
 - What will have high policy value?

GUIDING IDEA #3

Different questions have different methods

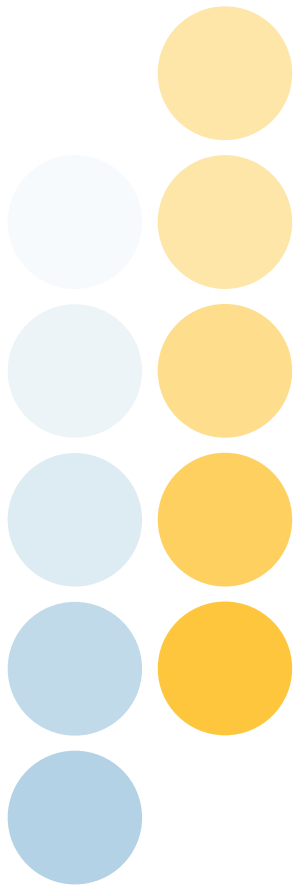
- Focus on cause-effect questions. For these, we need a counterfactual.
- We also want to know:
 - Is it cost-effective?
 - What are the channels through which impacts are achieved?
 - What are the experiences of program participants?
- Leverage M&E activities and build on these

LOOKING FORWARD

We believe

- **Data and evidence** matter, but they are not the end goal
- Data and evidence **are an investment** (like any project activity)
- The end goal is **to improve and save lives**

We can best achieve this by working together and learning from each other. This starts now!



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Thank you!



PEI FUNDING PARTNERS



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