



ICTS TO ACHIEVE BROADER PUBLIC-POLICY OBJECTIVES

DR CHRISTOPH STORK

/ GENERAL

- All very good research papers
- Policy briefs need refinement: translation
- Focus on how to extent research to increase usefulness for policy makers
- My view on how to translate research into policy advice
- CPR South not just R South

Policy Brief Evaluation	Stand Alone?	Addressing policy makers?	Practical recommendations?	Adequate communication?
Understanding Complex Social Network of Government Officials in Decision Making	No	No	No	No
Improving Disease Outbreak Forecasting Models for efficient targeting of Public Health Resources	No	Yes	Vague	No
Predicting Socio-Economic Characteristics of the Sri Lankan Population using CDRs	No	Yes	Vague	No
Leveraging big data to support measurement of the SDGs	No	Yes	Vague	No

/ WHAT IS IMPORTANT FOR A POLICY BRIEF?

- Which policy maker am I addressing
- What is the decision scope of policy maker
- What do I hope to change
- What evidence do I need to affect that change
- How do I need to communicate that evidence

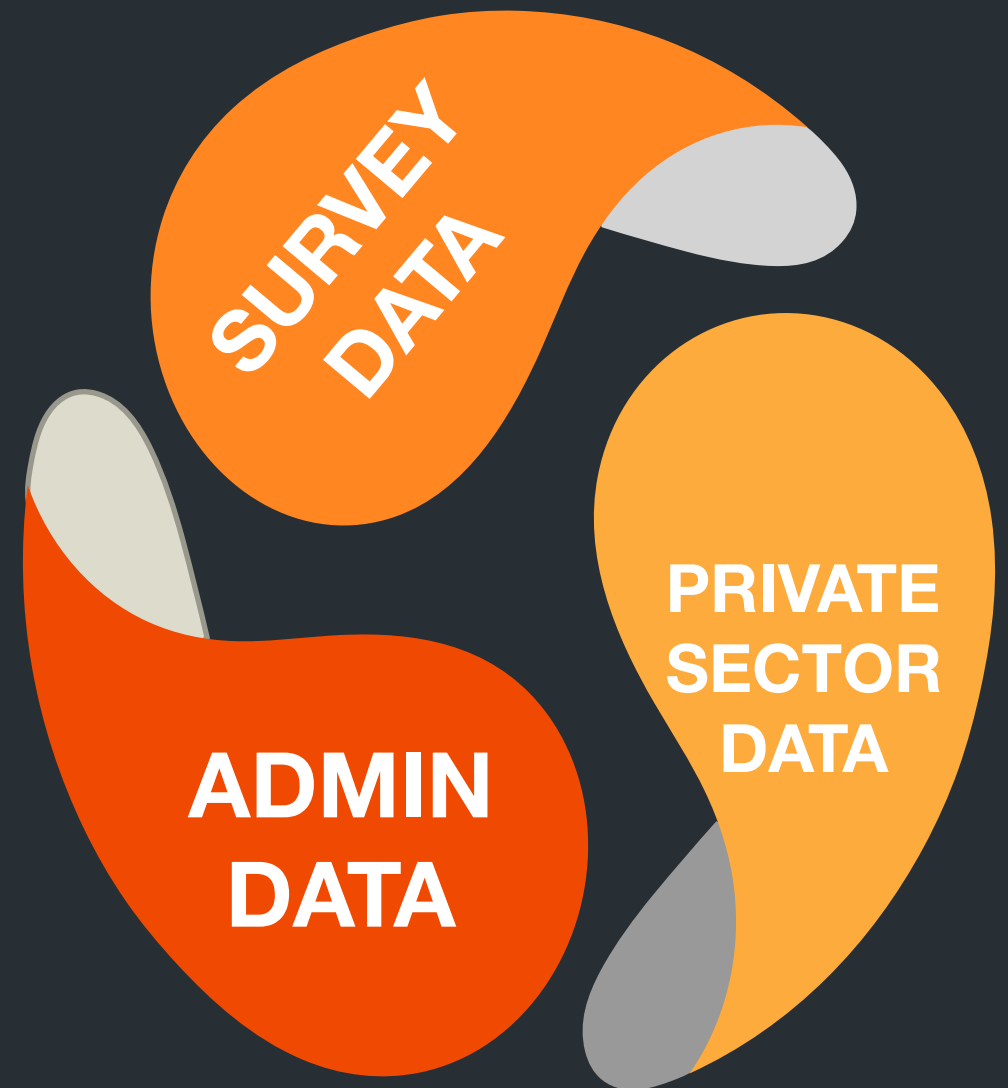


IMPROVING DISEASE OUTBREAK FORECASTING MODELS FOR EFFICIENT TARGETING OF PUBLIC HEALTH RESOURCES

Lasantha Fernando, Sriganesh Lokanathan

/DISCUSSION

- Very good example of big data
- Combining large data (CDRs) with admin data (Dengue fever stats)
- “CDRs for estimating human mobility to improve predictive performance of dengue fever models”
- Policy briefs needs to be better targeted and more convincing



Policy Brief does not have enough evidence to convince policy makers to utilise CDRs

Dengue fever risk according to paper

Population density

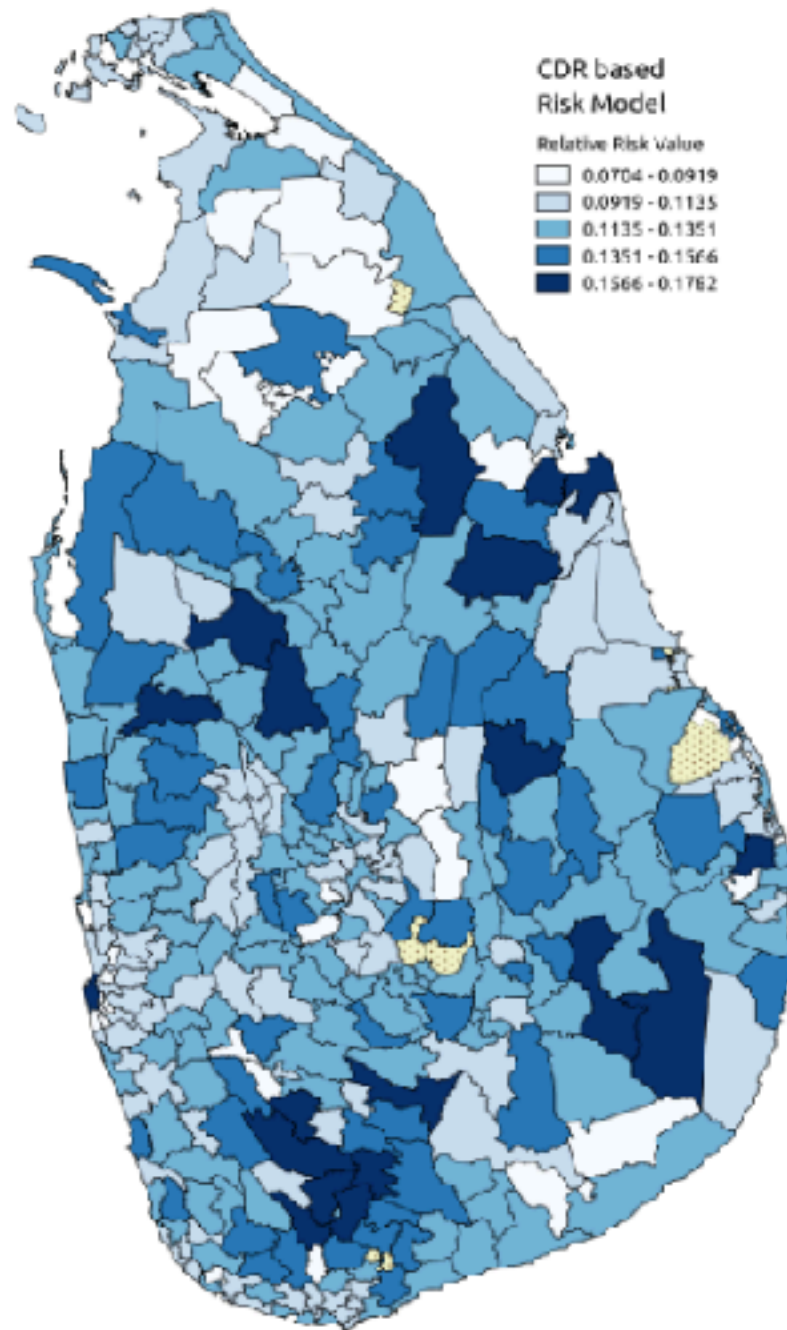
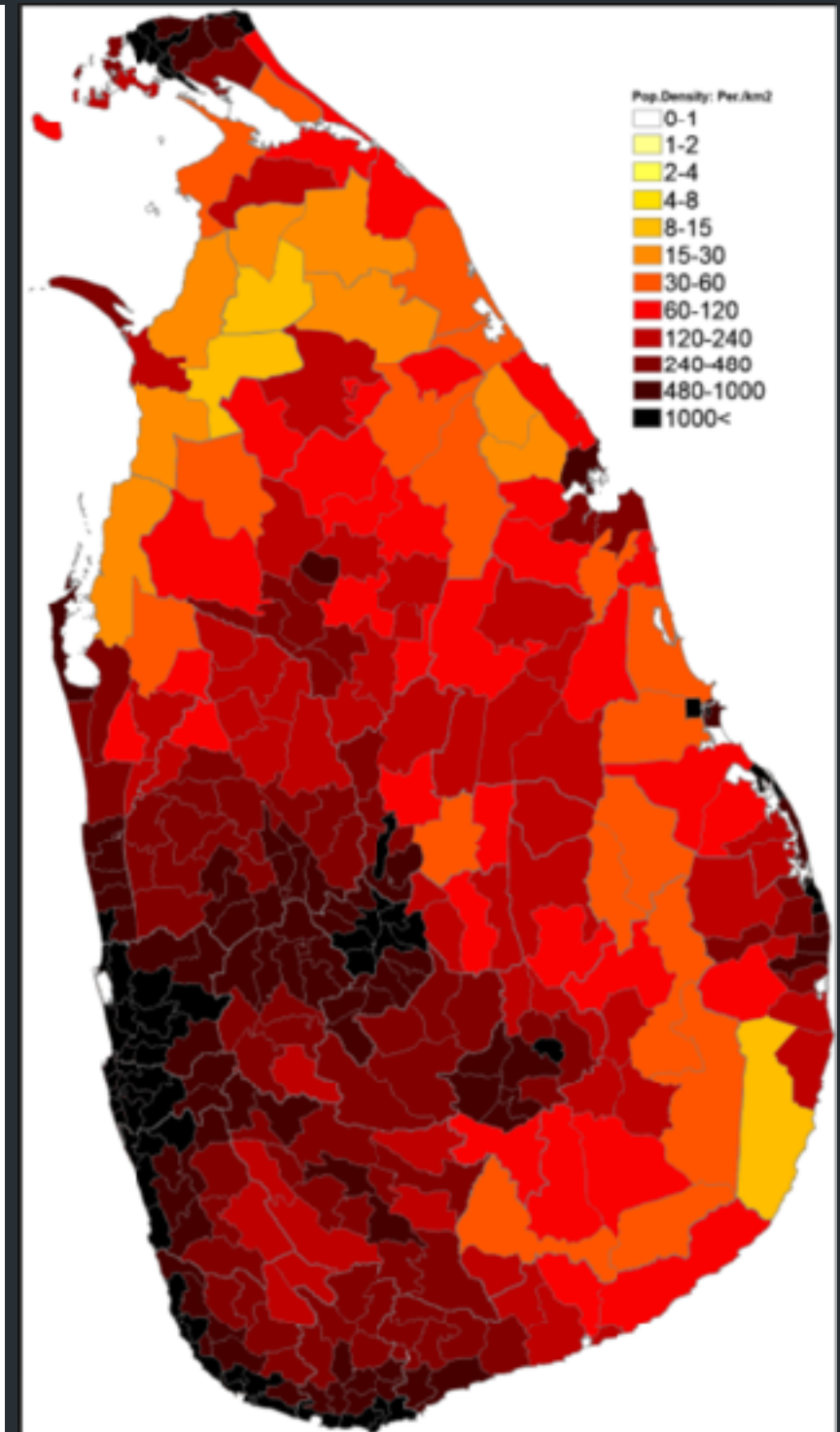


Fig. 1: Risk map of Sri Lanka based on risk-based mobility model for week 32 of year 2013



Policy Brief does not have enough evidence to convince policy makers to utilise CDRs

Dengue fever risk according to paper

Actual Dengue Fever Outbreaks

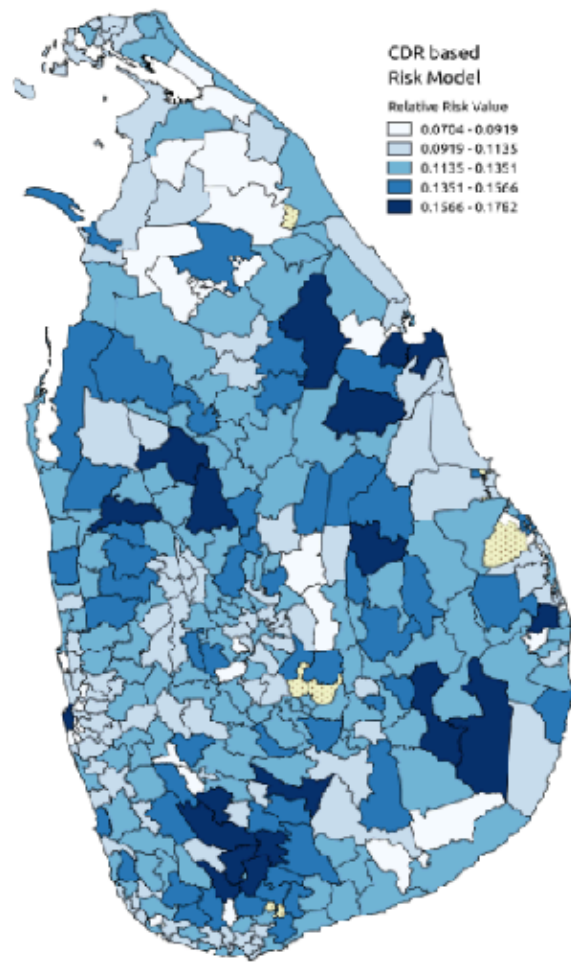
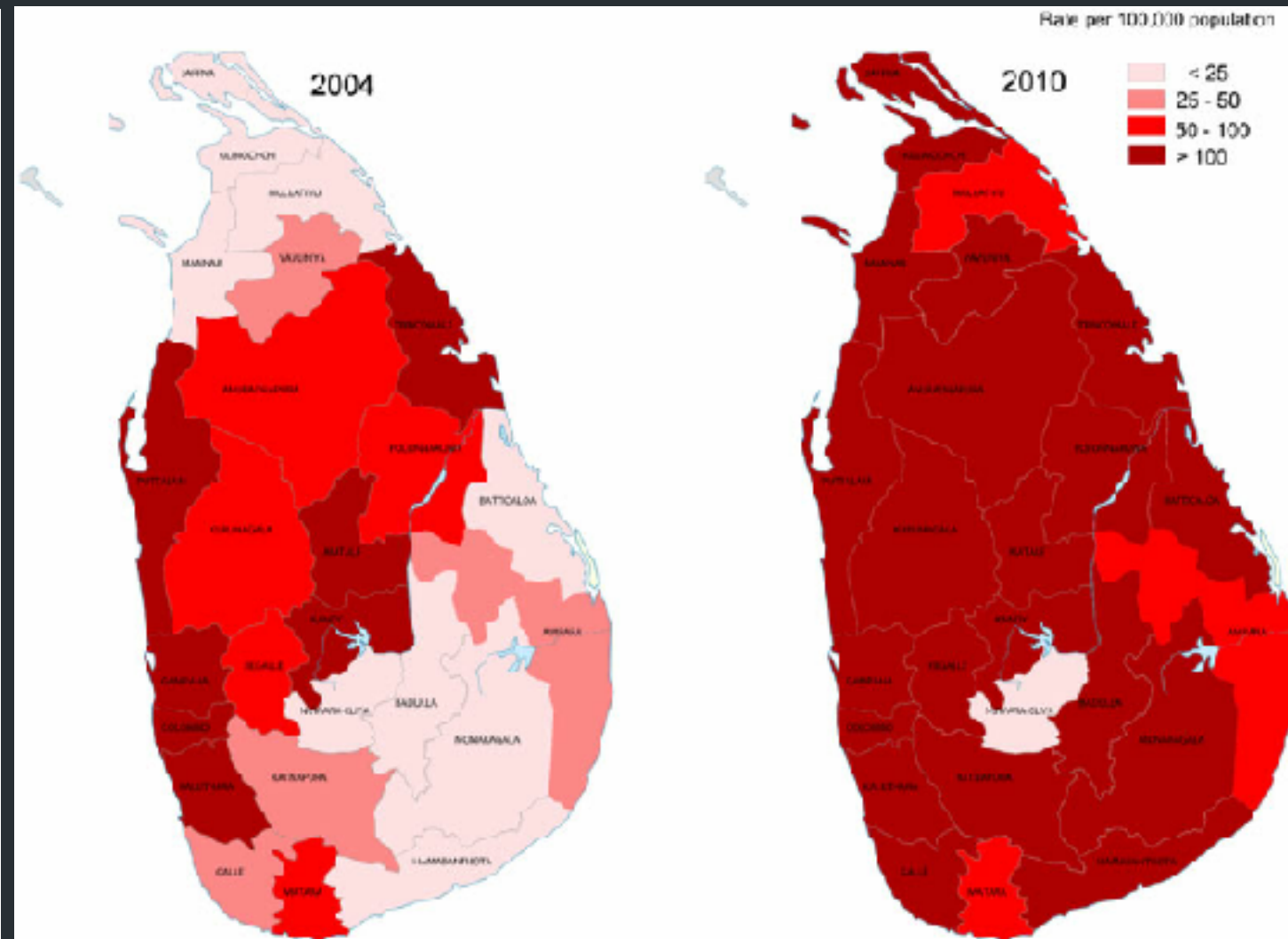


Fig. 1: Risk map of Sri Lanka based on risk-based mobility model for week 32 of year 2013



Evidence was in the paper

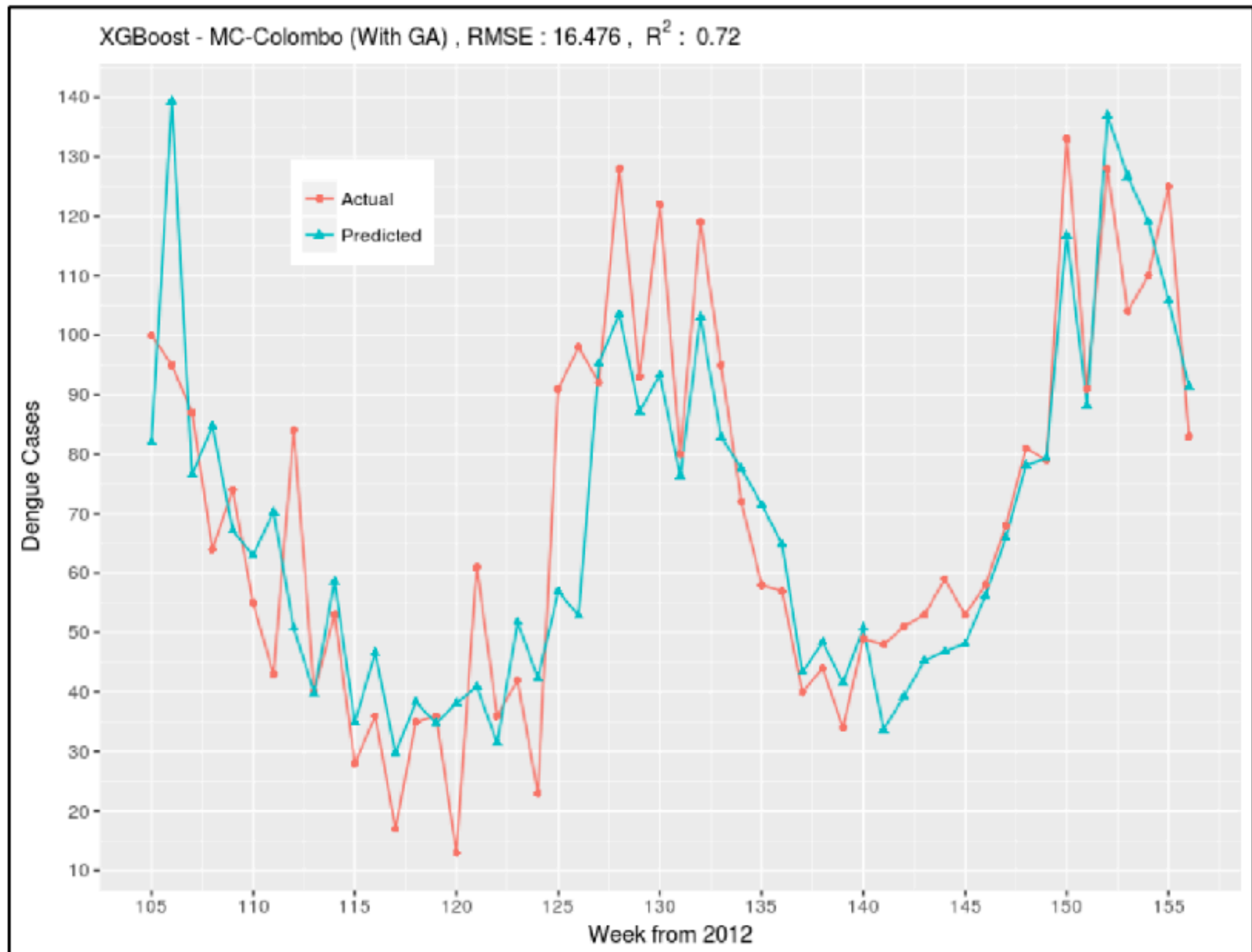
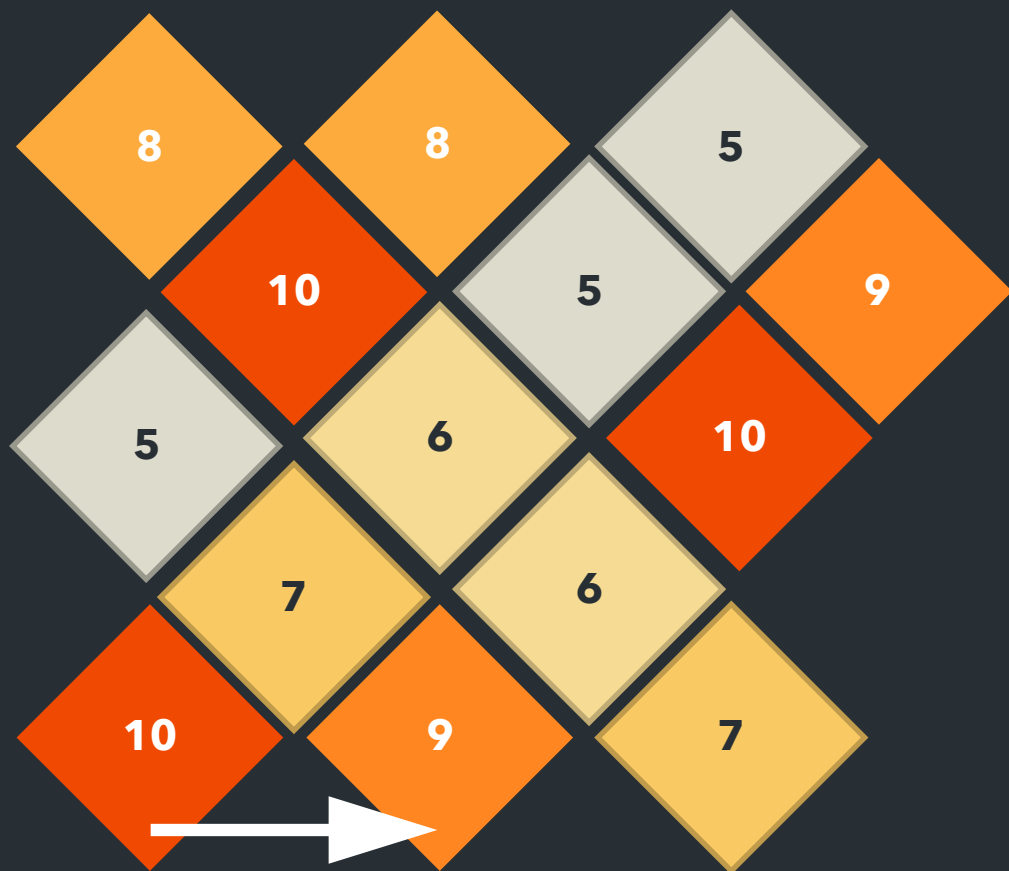


Figure 2. Dengue Incidence (Predicted vs. Actual) using GA optimization

WAY FORWARD: MOBILITY INDICATORS



- Ministries are unlikely to have the skills and computing power to process CDRs
- Mobility indicators for districts could be calculated for them and regularly be updated
- Could include direction of mobility
- Dengue, Malaria, TB, Food & Mouth

Improving Disease Outbreak Forecasting Models for efficient targeting of Public Health Resources

Which policy maker am I addressing

Minister of Health

What is the decision scope of policy maker

Request CDRs from mobile operators

What do I hope to change

Collaborate on utilisation of CDRs

What evidence do I need to affect that change

How it helps improve disease outbreak forecasts and preventative planning

How do I need to communicate that evidence

X% better forecasting
Y less fatalities
Z US\$ saved by increased efficiencies



UNDERSTANDING COMPLEX SOCIAL NETWORK OF GOVERNMENT OFFICIALS IN DECISION MAKING

Moinul Zaber, Dipankar Chaki, A.T.M Shakil Ahamed



উদ্ভাবন সংস্কৃতি বিকাশে সরকারি কর্মকর্তাদের মুক্ত আলোচনার প্রাচীফরম
মন্ত্রিপরিষদ বিভাগ | প্রধানমন্ত্রীর কার্যালয়

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'পাবলিক সার্ভিস ইনোভেশন বাংলাদেশ' ফেসবুক গ্রুপ হায়েদা।
এটি ... See more

TAGS
Innovation - Bangladesh - Government of Bangladesh

LOCATIONS
Bangladesh

PINNED POST
Md Mizanur Rahman
8 March
করোনা
মাননীয় প্রধানমন্ত্রী
বিষয়: খালের কচুরীশালা পরিষ্কার করার জন্য আহবান।
বাহেলানগর বর্তমান সরকার দেশের উন্নয়নের রূপ রেখা। বর্তমান সরকার বাংলাদেশকে ডিজিটাল বাংলাদেশ গড়ার লক্ষ্য করা করে যাচ্ছে। তাই আমাদের আস্থা ও বিশ্বাস। প্রধানমন্ত্রী জননেত্রীকে কাছে আঁকনার উপর আমাদের অনেক আশা ও আকাঙ্ক্ষা যে, আপনি দেশের নদী নালা ও খালগুলিকে উন্নত করতে চান। তাই আপনার কাছে আমাদের দক্ষিণ বাহলার বরগোলা জেলার জলসালার পলি যে, বরগোলা জেলার আঞ্চলিক উপজেলায়, আনন্দনী, হলদিয়া ও চাওড়া ইউনিয়নের পলি যোগে করে গেছে এ... See more
See Translation




উদ্ভাবন সংস্কৃতি বিকাশে সরকারি কর্মকর্তাদের মুক্ত আলোচনার প্রাচীফরম
Your request to join Public Service Innovation Bangladesh
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To learn from public service innovations in Bangladesh.

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DC Rangamati shared a link.
Yesterday at 11:00



The Daily Star

Orphan sisters find a parent in Rangamati DC
Meem and Sumaiya, only 6 years and 18 months old respectively, lost their parents in the devastating landslide in a Rangamati town on June 13. But in the aftermath of the tragedy, they have found a guardian in Mohammad Manzurul Mannan, deputy...
THEDAILYSTAR.NET

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/DISCUSSION

- Impressive web scraping and network analysis skills
-does not have a policy focus
- Authors could make the paper and policy brief policy relevant:
 - Is the closed FB a good approach to discuss public service innovation?
 - Will people want to use private FB account for work purposes?
 - How can interactivity and contributors increased?
 - Moderated blog?
 - Separate m-app?

Understanding Complex Social Network of Government Officials in Decision Making

Which policy maker am I addressing

Office of the Prime Minister

What is the decision scope of policy maker

Create a Facebook alternative that removes hierarchy and promotes innovation

What do I hope to change

Platform that spurs public service innovation, that is widely used

What evidence do I need to affect that change

Content analysis of FB group, in addition to the network analysis. Have any innovations come from it?

How do I need to communicate that evidence

Translate your findings so that the person you are addressing can understand



LEVERAGING BIG DATA SOURCES TO SUPPORT THE MEASUREMENT OF THE SDGS

Thavisha Perera-Gomez, Sriganesh Lokanathan

/ DISCUSSION

- Paper alludes to how Big data may be used but does not actually demonstrate any application.
 - Apps for dispersing drought relieve may provide poverty indicators
 - Health app if used widely may provide alternative health stats

/WAY FORWARD: ADD EMPIRE ANALYSIS

- Satellite image of village in Indonesia where Lirne Asia conducts HH surveys
- Classify HH as poor based on machine learning and compare that with survey data



Leveraging Big Data Sources to Support the Measurement of the SDGs

Which policy maker am I addressing

National Statistical Offices

What is the decision scope of policy maker

Utilise CDRs, satellites and machine learning to monitor SDGs

What do I hope to change

Collaboration with LirneAsia in use of CDRs, satellites and machine learning

What evidence do I need to affect that change

Demonstrate that CDRs can help to make projections more accurate

How do I need to communicate that evidence

Practical examples
Empirical evidence



PREDICTING POPULATION- LEVEL SOCIO-ECONOMIC CHARACTERISTICS USING CALL DETAIL RECORDS (CDRS) IN SRI LANKA

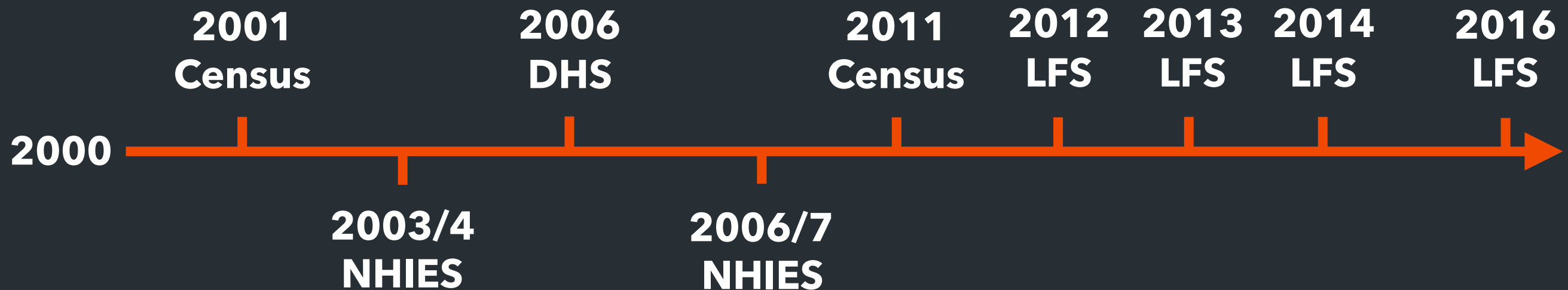
**Aparna Surendra, Sriganesh Lokanathan,
Thavisha Perera-Gomez**

/ DISCUSSION

- Key Message: Use CDRs + survey data for better data
- From Paper: "CDR features are, ultimately, behavioural features, and these are not constant across time and space."
- A problem with large data sets is that everything is correlated
- We need to understand whether changes in CDRs based on changes in social economic characteristics? (not necessarily causality)

/SURVEYS ARE SNAP SHOTS - BIG DATA IS A MOVIE

Example of Namibia surveys



Can Big Data be used to:

- Fill gaps (interpolate key statistics)?
- Reduce frequency of surveys?
- Make statistics more accurate?
- Reduce sample size (census 4% of population)?

We need to understand links better

WAY FORWARD

- Case study to establish links to socio-economic indicators:
 1. Census data for 1 EA
 2. Lirne Asia Survey Data for 1 EA (collect mobile numbers in EA and consent forms)
 3. CDRs for the EA
 4. QoS measurements for the EA while the survey was done
- Empirical analysis how CDRs can be used to interfere and project socio economic indicators

Predicting population-level socio-economic characteristics using Call Detail Records (CDRs) in Sri Lanka

Which policy maker am I addressing

National Statistical Offices

What is the decision scope of policy maker

Requesting CDRs from MNOS

What do I hope to change

Collaboration with LirneAsia in use of CDRs

What evidence do I need to affect that change

Demonstrate that CDRs can help to make projections more accurate

How do I need to communicate that evidence

Practical examples
Empirical evidence

**/CONVERTING GOOD
RESEARCH INTO GOOD
POLICY ADVICE**