Existing mechanisms for utilizing data in policymaking and barriers to leveraging data

David Beran
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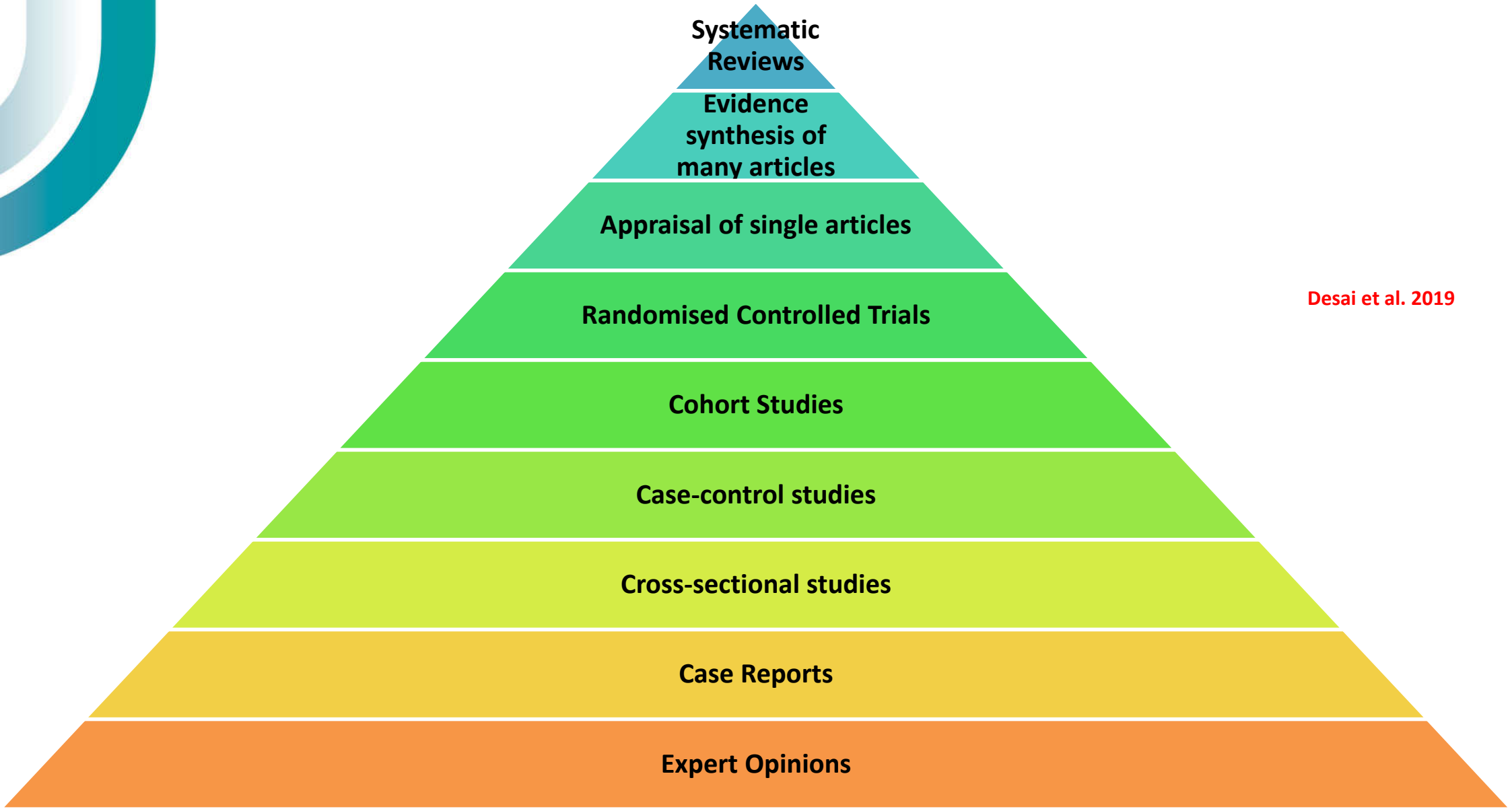
Generation of Evidence



Desai et al. 2019

The word → «POLICY»

French	Russian
Policy = Politique = Same word as Politics	Policy = Политика = Same word as Politics (?)
Policy = Course of action or plan agreed, upon by governments, e.g Health policy	
Politics = Set of beliefs	

Science to Policy

Review

Diabetes care in sub-Saharan Africa

David Beran, John S Yudkin

The increasing numbers of people with type 2 diabetes is a worldwide concern. It presents an added challenge in sub-Saharan Africa, where diabetes must compete for resources with communicable diseases. A scarcity of financial resources and appropriate staff mean that many people with type 2 diabetes have complications and that those with type 1 diabetes have an extremely short life-expectancy, whether or not they have been diagnosed with the disorder. We review the current evidence on diabetes care in sub-Saharan Africa and propose an 11-point action plan to address this problem in the region.

Lancet 2006; 368: 1689–95
See Comment page 1626

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Introduction

Many African countries now face a double disease burden, with increasing numbers of patients with non-communicable diseases, such as hypertension, stroke, coronary heart disease and diabetes, added to the challenges of HIV, malaria, and tuberculosis.[1] This poses challenges to the health care of resource-poor countries, because of the need to invest in systems and training of health-care workers to manage chronic disease. The challenges of diabetes are two-fold—to stem the growing burden of type 2 diabetes due to urbanisation and obesity and to provide accessible care and appropriate medicines to people diagnosed with the disease.

Three-quarters of a century after its discovery, insulin is still not available on an uninterrupted basis in many parts of the developing world.[2,3] A decade ago, a survey in 25 African countries[4] showed that in half the countries surveyed, insulin was often unavailable in the large city hospitals, and regularly available in rural areas in only five countries. Recent data suggest that the situation is virtually unchanged.[5] In countries with an average yearly income of about US$300, the care of a person with diabetes can cost as much as half or two-thirds of this sum, of which about half is the cost of insulin.[6–8] As a result, the life expectancy of a child with newly diagnosed type 1 diabetes in much of sub-Saharan Africa might be as short as 1 year.[9,10] In Bamako, Mali, median life expectancy for a child with type 1 diabetes is 8 years.[11] Life expectancy in rural Mozambique has been estimated to be as little as 7 months.[12]

Challenges

Although epidemiology data for type 1 diabetes in Africa are scarce,[13] its recorded prevalence in sub-Saharan Africa is much lower than in temperate countries, because of three factors: a lower incidence, underdiagnosis and misdiagnosis, and a poorer prognosis. In one study in Tanzania, 21 of 199 patients diagnosed as having cerebral malaria actually had precoma or coma precipitated by uncontrolled diabetes.[14]

Prevalence estimates in sub-Saharan Africa are derived from incidence data[15,16] and an assumed life expectancy of 5 years, and produce a figure of 35 100 people with type 1 diabetes.[17] Estimates suggest that for type 1 diabetes in children, the prevalence in North America and the West Indies is 0·062%, compared with 0·012% in Africa.[15] The incidence of type 1 diabetes is increasing in many parts of the world, especially in low prevalence countries and in younger children.[18] Improved care is also likely to improve prognosis of these patients, with an additional effect on prevalence.

The number of people with type 2 diabetes worldwide was estimated at 171 million in 2000 and is predicted to rise to 366 million in 2030.[1] In a review of diabetes in Africa by Sobngwi and colleagues,[19] the prevalence of diabetes ranged from 1% in rural areas to between 1% and 6% in urban areas. In a population of Indian origin in sub-Saharan Africa the prevalence was between 12% and 13%. Prevalence rates in other African settings range from an apparent absence of diabetes in Togo to rates of 10–4% in northern Sudan.[20] Wild and colleagues[21] estimated that in 2000, 7146 000 people in sub-Saharan Africa had diabetes, with a projected increase to 18 645 000 in 2030. These projections do not take into account the effect of urbanisation[22] and ageing[23] with UN estimates that by 2025 54·1% of Africans will live in urban areas. These numbers, however, do not account for the rates of obesity which have been increasing strikingly across much of urban Africa.[24]

As the prevalence of diabetes continues to rise, the parallel increase in complications will strain health-care resources.[25] Mbanya and Sobngwi[26] collated data for prevalence of complications, and showed that retinopathy affects 16–55% of people with diabetes, with some 21–25% of people with newly diagnosed type 2 diabetes presenting with retinopathy. These investigators estimated that 15–20% of type 1 diabetes patients in sub-Saharan Africa have overt nephropathy, which is responsible for 50% of all-cause mortality in these patients. Other studies have shown peripheral neuropathy in 10–36% of patients. In Tanzania, treatment of diabetic complications represented 30–8% of total outpatient costs in the main hospital in the capital city[9] with yearly spending per head of US$138, some 19 times more than per head government expenditure on health at average exchange rate.[27]

Much of the discourse on access to antiretroviral treatment in resource-poor countries has concentrated on the effects on prices of patents and the trade-related aspects of intellectual property. Such considerations do

IMAGE 1:
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(06)69704-3/abstract

IMAGE 2: https://www.bag.admin.ch/bag/fr/home/strategie-und-politik/nationale-gesundheitsstrategien/strategie-nicht-uebertragbare-krankheiten.html

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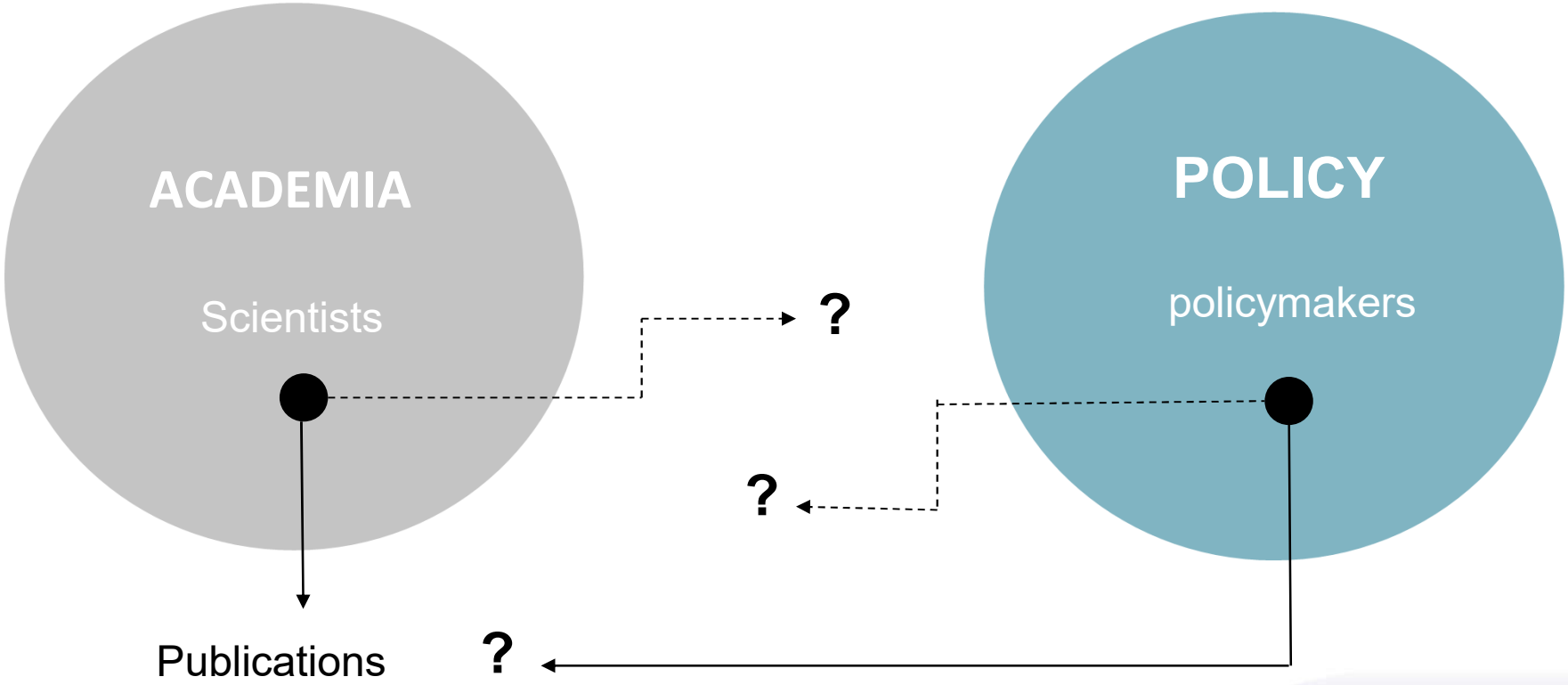
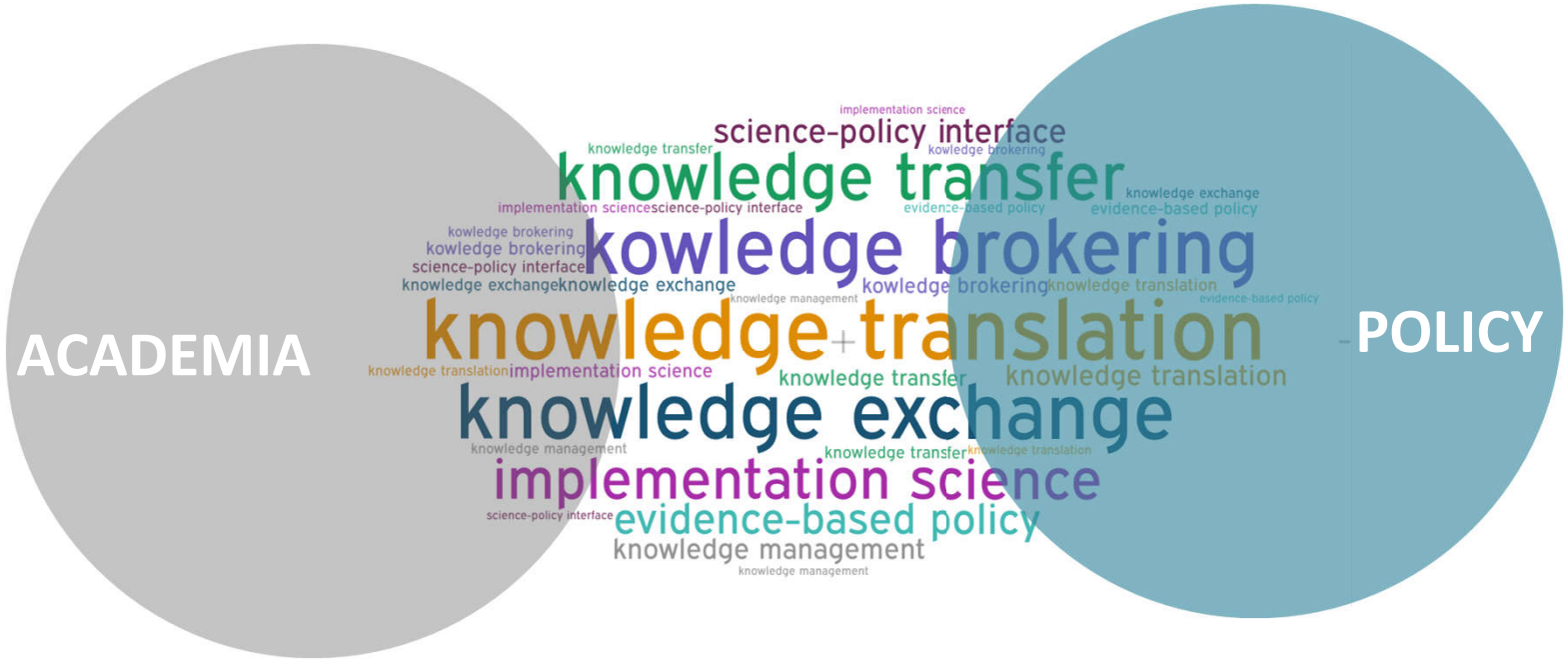
Mismatch at the interface



Mediating the field



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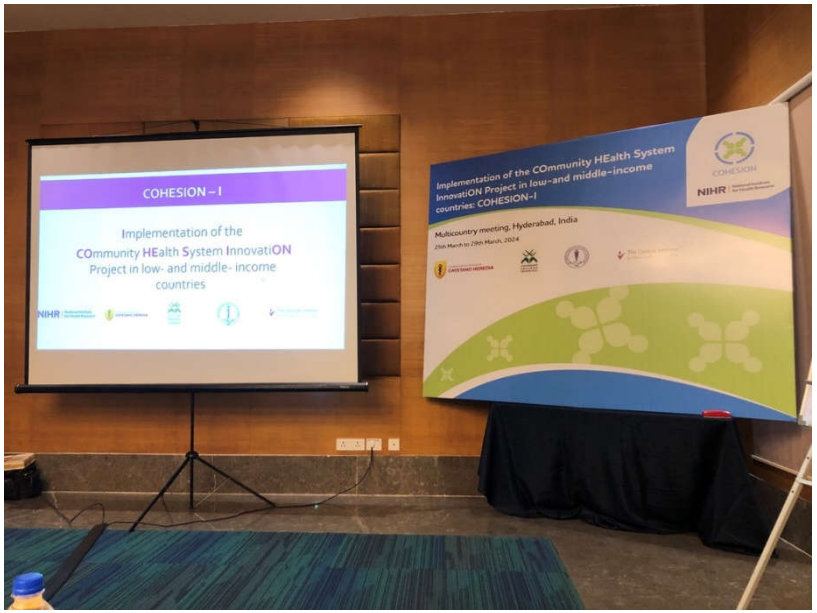
Background – Why is this not straight forward?

- Sender
- Receiver
- Channel
- Message
- Feedback
- Noise



https://www.linkedin.com/pulse/6-keys-communication-sasha-jovanovic/

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Sender

- Actual researcher
  - Seniority
  - Reputation
  - “Known”
- Knowledge broker
  - Reputation
  - From where, e.g. World Health Organization versus NGO
- Media

➢ What is the person’s agenda?

Receiver

- Seniority
- Civil servant versus political appointment
- Understanding of health-related issues
- Political climate

Channel

- Social Media
- Media
- Policy brief
- Oral presentation
- Formal or informal meeting
- Etc.

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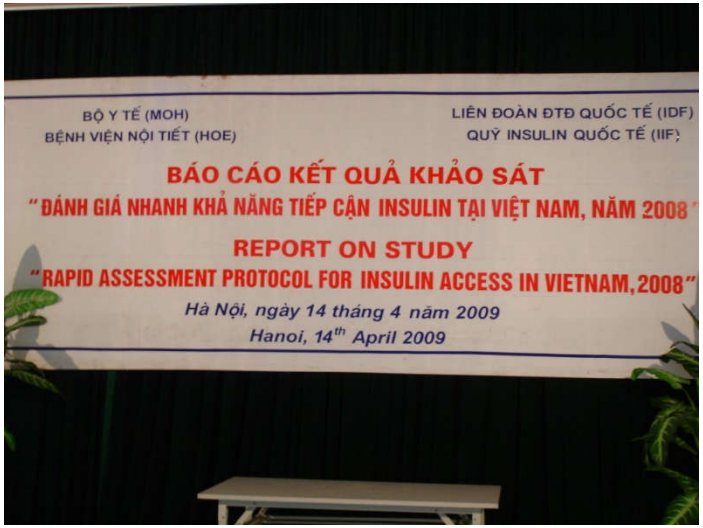
Message

- Clarity
- Take home
- Resonates
- Linked with political interests/political agenda
- Feasibility of solution(s)



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Feedback

- How is an opportunity for this created?
- How is this provided?
- Depends on interaction
- Depends on person

Noise

- Current political climate
- Current political priorities
- Competing priorities
- Who was in the office just before you?
- What is in the media
- Agreement or not on evidence

The New York Times

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Eat Less Red Meat, Scientists Said. Now Some Believe That Was Bad Advice.

The evidence is too weak to justify telling individuals to eat less beef and pork, according to new research. The findings "erode public trust," critics said.

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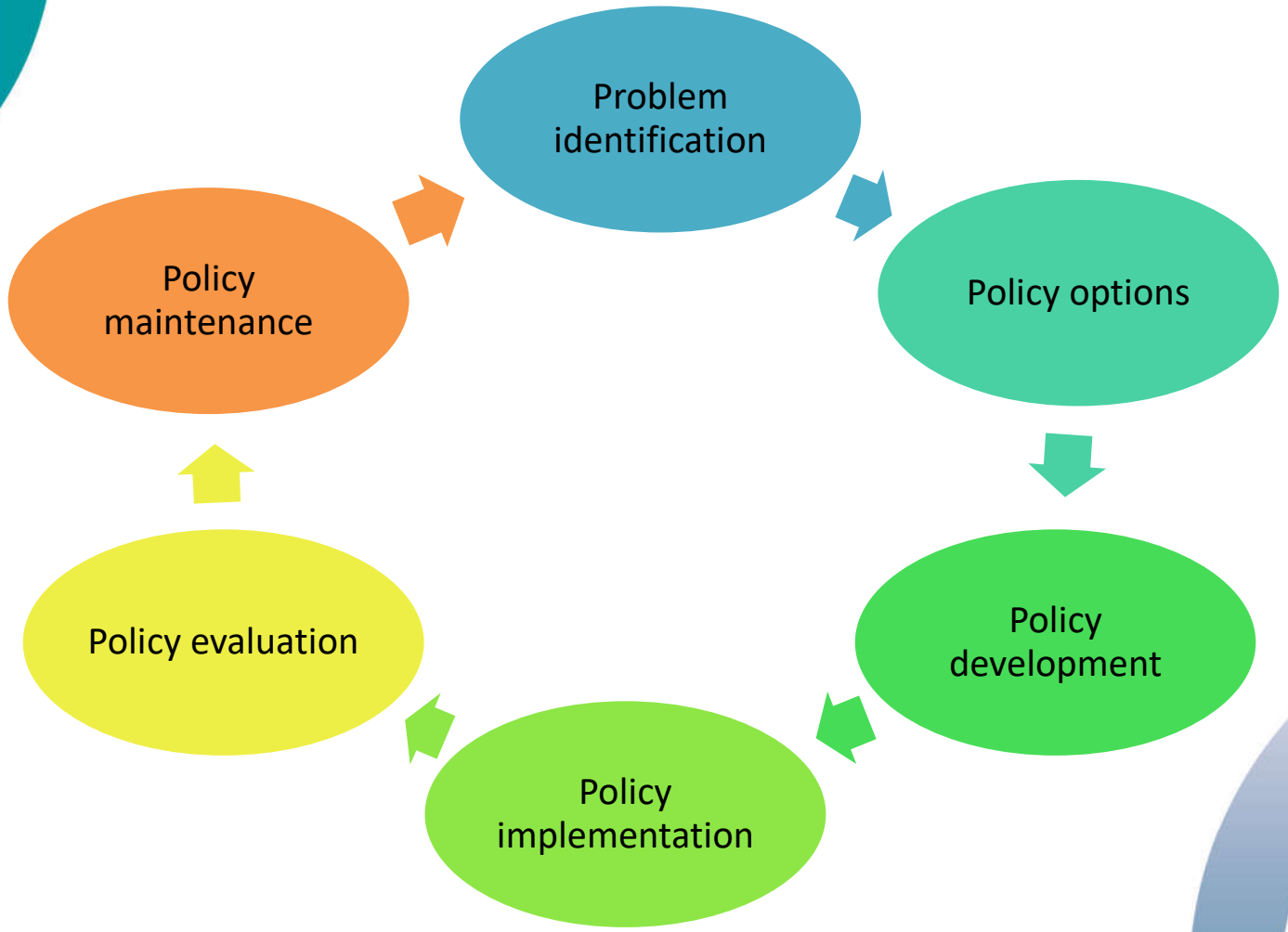
Policy Process

- Nice and neat process….



https://www.cdc.gov/policy/polaris/policyprocess/index.html

Policy Process

- Nice and neat process….
  - Lead additives in paint
  - Tobacco
  - Climate Change
  - Obesity
  - Alcohol
  - Illegal Drugs
  - COVID-19

➢ Beliefs versus course of action

https://www.firstthings.com/blogs/firstthoughts/2011/09/18873

The Example of Insulin

Problem identification → Policy options → Policy development → Policy implementation

- Research & Development and Innovation
- Manufacturing
- Marketing Registration
- Selection, Pricing and Reimbursement
- Procurement and supply
- Prescribing
- Dispensing
- Use

WHO 2018

World Health Organization

SEVENTY-FOURTH WORLD HEALTH ASSEMBLY
Agenda item 13.2

A74/A/CONF./5
24 May 2021

Reducing the burden of noncommunicable diseases through strengthening prevention and control of diabetes

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Utilizing Data

- For diabetes we know what we need to do
  - Prevention
  - Care
- A lot of research exists
  - Is it used?
  - Is it adapted?
    - Gaps for Low and Middle Income Countries

Bridging the gap

- Qualitative work as part of the development of the WHO diabetes prioritised research agenda
  - Work supported by the Geneva Science-Policy Interface

"There is often a huge gap as both researchers and policy makers are in their own bubble."

"The needs are really broad it is hard to address everything."

"Somehow, they are aware but as it is a silent disease, it is not seen as a priority nor a serious issue."

"Do we want to have more people diagnosed or do we want to have discoveries of new ways to manage diabetes?"

Geneva Science-Policy Interface

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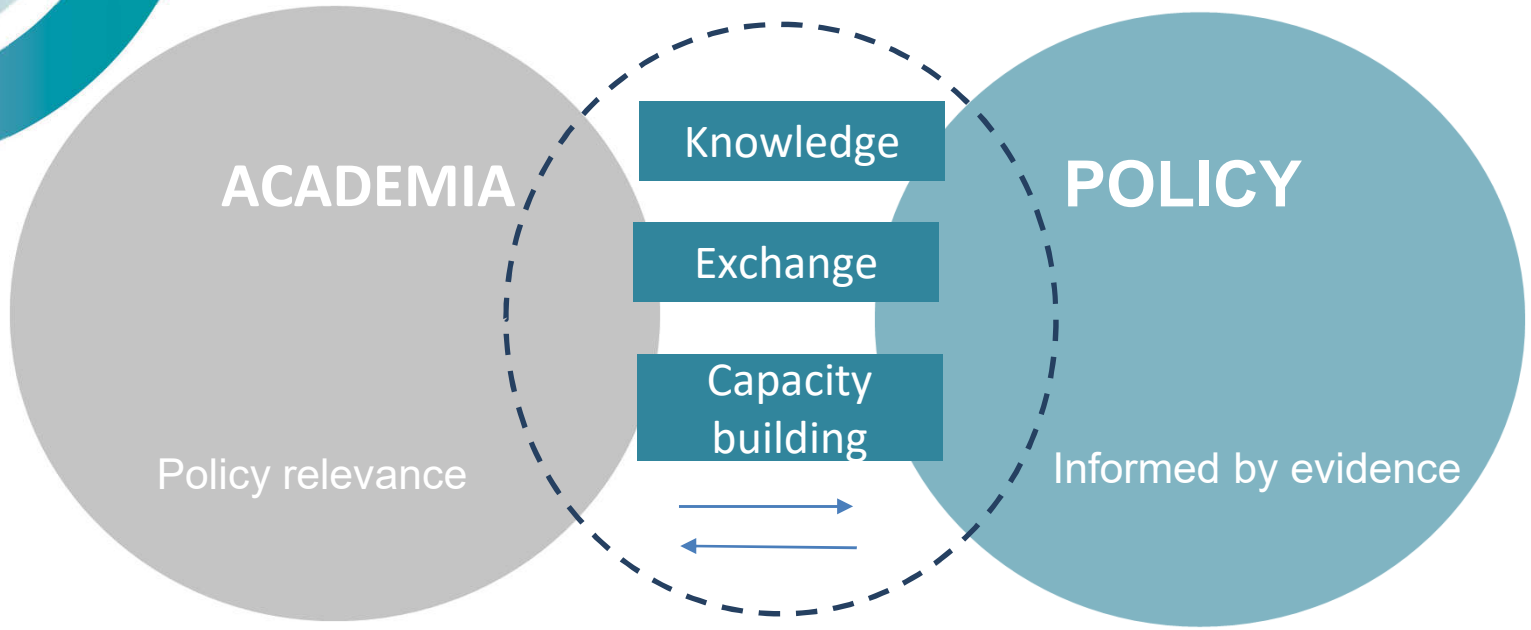
Knowledge Translation Platform

Knowledge translation platforms (KTPs) are intermediary organisations, initiatives or networks whose intent is to overcome a range of inter-relationship and contextual challenges using a multitude of strategies and tools.



"Science platform that could allow policy makers to quickly have the research that they are looking for and in a convenient format."

Thoughts and reflexions

- Theory versus practice
  - We are dealing with human beings
- Role of researchers
  - Which policies
  - Policy level to target and the impact we want
  - Do not under-estimate the role of academia
  - Funders and institutions “want this”
- Role(s) as policy makers
- What tools are we missing
  - Training
  - Funding
    - Not one-off funding work

Thoughts and reflexions

- Time investment
  - Detracts from true “work”
  - Political systems and understanding these
  - Relationships
  - Exchanges and coffee breaks
  - Time frames are different
- Research and policies
  - Not all research is policy relevant
  - Not only about good science
  - Framing of science/message
  - Windows of opportunity
- Dealing with other stakeholders
  - Advocates
  - Knowledge brokers
  - Media

THANK YOU !

Questions?

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