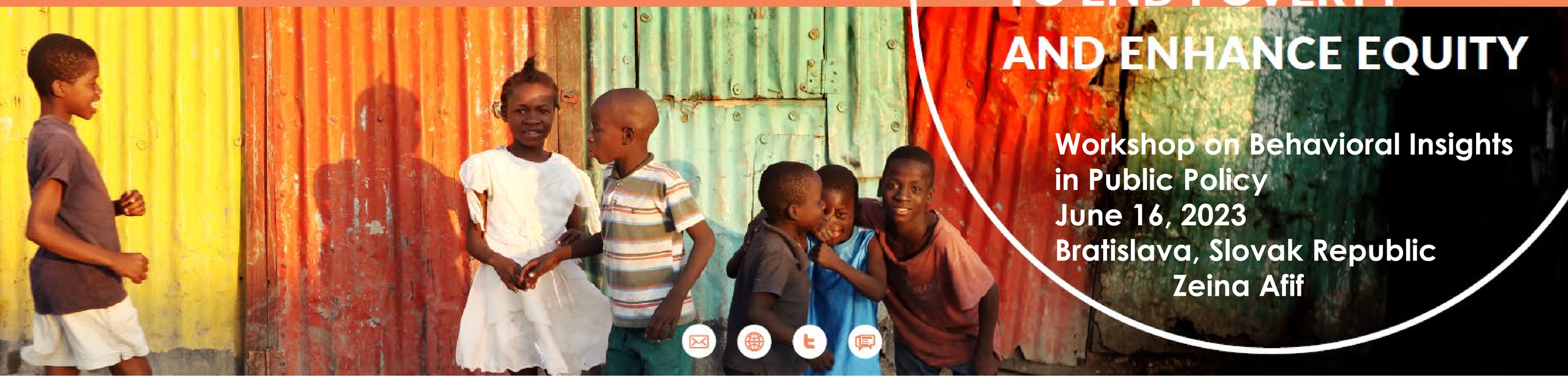
The Mind, Behavior, and Development Unit

WORLD BANK GROUP
Poverty & Equity

eMBeD
Mind, Behavior, and Development Unit

APPLYING BEHAVIORAL SCIENCE TO END POVERTY AND ENHANCE EQUITY



Workshop on Behavioral Insights in Public Policy
June 16, 2023
Bratislava, Slovak Republic

Zeina Afif

1 **Behavioral Science and Public Policy**

2 **Behavioral Science @ the World Bank**

3 **From Diagnostic to Evaluation**

1 **Behavioral Science and Public Policy**

2 **Behavioral Science @ the World Bank**

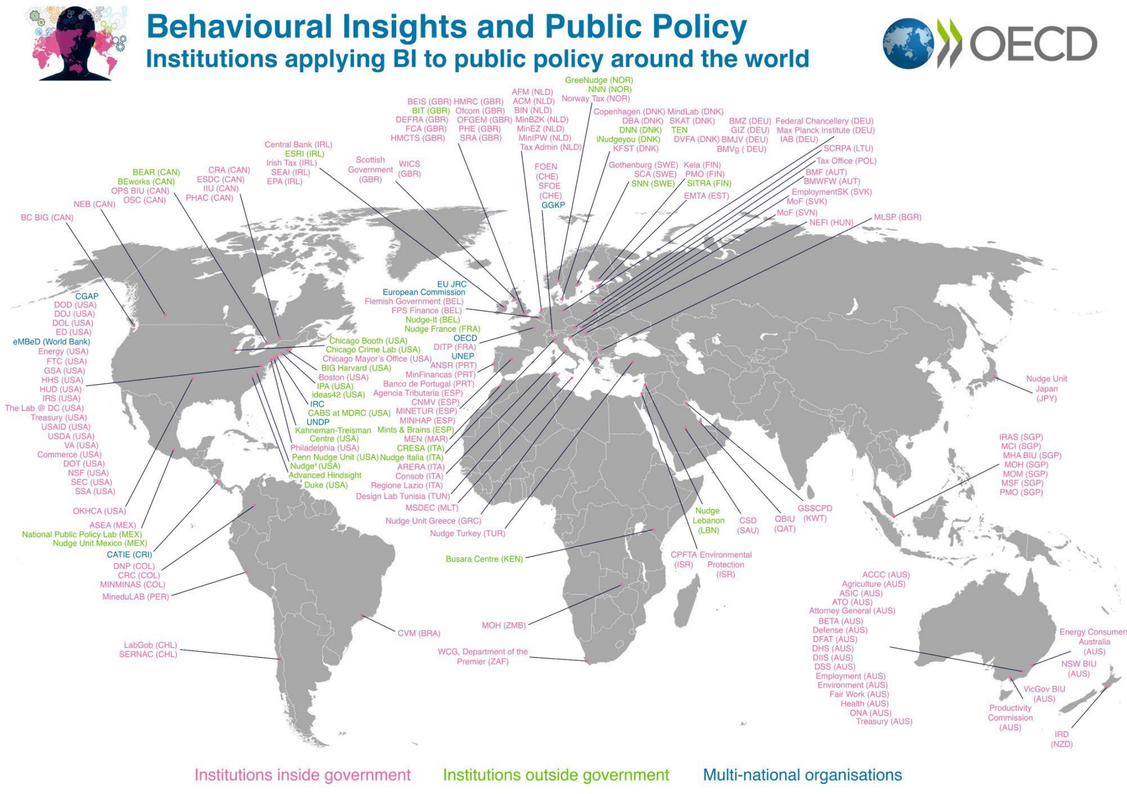
3 **From Diagnostic to Evaluation**

Facts and Figures

- **200+** - The number of public entities all over the world reportedly applying behavioral insights to their policy practices (OECD, 2018)

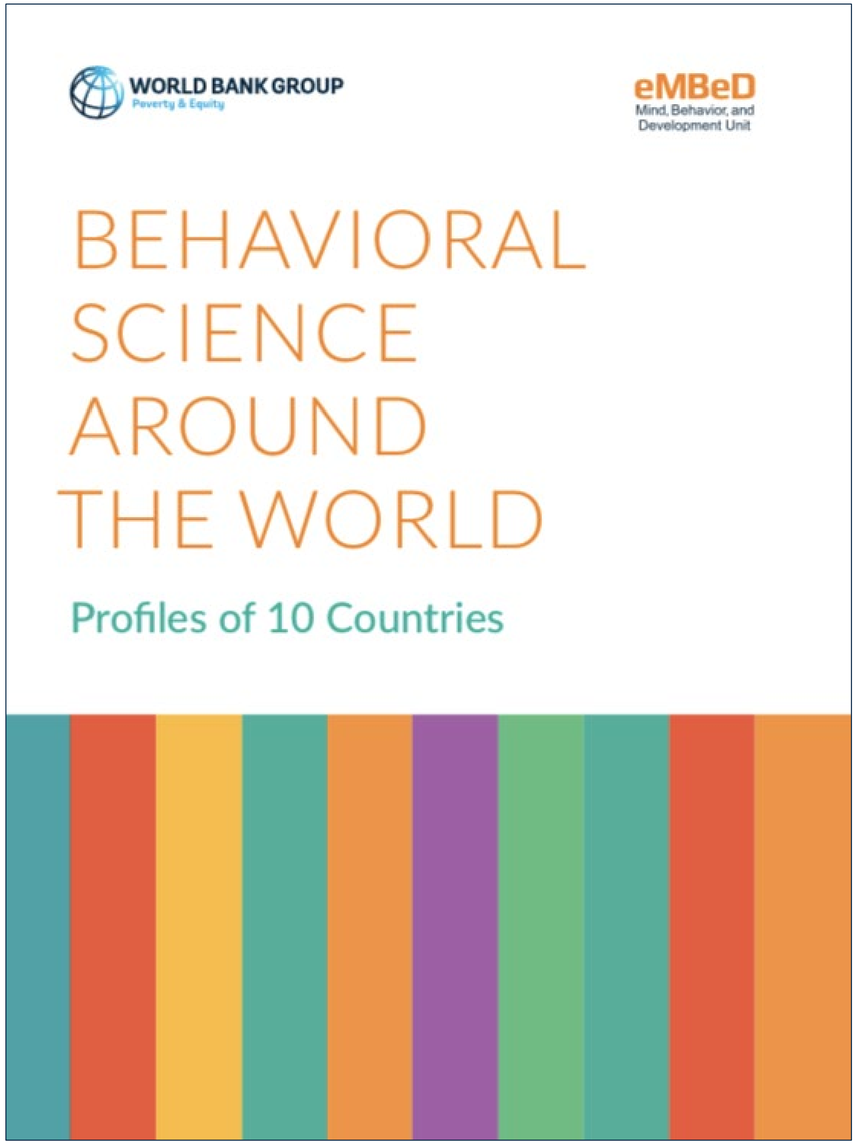
- **2010** - Year the Behavioural Insights Team (BIT) was founded in the UK, the first formal and systematic application of behavioral insights to public policy

- **2015** – World Bank published World Development Report: Mind, Society, and Behavior



Behavioral Science Around the World: Volume I

- Published December 2018
- Captures spread and form of behavioral science in government and policymaking
- How early adopters integrated behaviorally informed policy in 10 countries
- Sectors of interest include healthcare, taxation, education, sanitation, etc.



The Countries

- Australia
- Canada
- Denmark
- France
- Germany
- Netherlands
- Peru
- Singapore
- United Kingdom
- United States

BIUs Set-Up

Structure:

- Centralized
- Decentralized
- Networked

Locations: Central government, departmental, regional/local, quasi-government

Projects and applications:

- Changing government forms, processes, and efficiency
- Regulation and enforcement
- Changing attitudes and mindsets
- Experiments and evaluation

Staffing: 2-20 staff varying levels of seniority. Collaborate with academics, research staff, and consultants

Sectors:

- Consumer and Organizational
- Education (Students, Teachers)
- Employment (Work Environment, Job seekers, employers)
- Environment (Sustainability, Ecology, Public Spaces, Energy)
- Finance (Investments, Savings)
- Health and Nutrition
- Social Security and Protection
- Taxes
- Trainings/Capacity Building

Executive Order to Use Behavioral Science to Better Serve Americans

Federal Register
Vol. 80, No. 181
Friday, September 18, 2015

Presidential Documents

Title 3—

The President

Executive Order 13707 of September 15, 2015

Using Behavioral Science Insights To Better Serve the American People

A growing body of evidence demonstrates that behavioral science insights—research findings from fields such as behavioral economics and psychology about how people make decisions and act on them—can be used to design government policies to better serve the American people.

Where Federal policies have been designed to reflect behavioral science insights, they have substantially improved outcomes for the individuals, families, communities, and businesses those policies serve. For example, automatic enrollment and automatic escalation in retirement savings plans have made it easier to save for the future, and have helped Americans accumulate billions of dollars in additional retirement savings. Similarly, streamlining the application process for Federal financial aid has made college more financially accessible for millions of students.

To more fully realize the benefits of behavioral insights and deliver better results at a lower cost for the American people, the Federal Government should design its policies and programs to reflect our best understanding of how people engage with, participate in, use, and respond to those policies and programs. By improving the effectiveness and efficiency of Government, behavioral science insights can support a range of national priorities, including helping workers to find better jobs; enabling Americans to lead longer, healthier lives; improving access to educational opportunities and support for success in school; and accelerating the transition to a low-carbon economy.

NOW, THEREFORE, by the authority vested in me as President by the Constitution and the laws of the United States, I hereby direct the following:

Section 1. *Behavioral Science Insights Policy Directive.*

(a) Executive departments and agencies (agencies) are encouraged to:

(i) identify policies, programs, and operations where applying behavioral science insights may yield substantial improvements in public welfare, program outcomes, and program cost effectiveness;

(ii) develop strategies for applying behavioral science insights to programs and, where possible, rigorously test and evaluate the impact of these insights;

(iii) recruit behavioral science experts to join the Federal Government as necessary to achieve the goals of this directive; and

(iv) strengthen agency relationships with the research community to better use empirical findings from the behavioral sciences.

(b) In implementing the policy directives in section (a), agencies shall:

(i) identify opportunities to help qualifying individuals, families, communities, and businesses access public programs and benefits by, as appropriate, streamlining processes that may otherwise limit or delay participation—for example, removing administrative hurdles, shortening wait times, and simplifying forms;

(ii) improve how information is presented to consumers, borrowers, program beneficiaries, and other individuals, whether as directly conveyed by the agency, or in setting standards for the presentation of information, by considering how the content, format, timing, and medium by which

Administratio

JANUARY 27, 2021

Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking

BRIEFING ROOM ▸ PRESIDENTIAL ACTIONS

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

It is the policy of my Administration to make evidence-based decisions guided by the best available science and data. Scientific and technological information, data, and evidence are central to the development and iterative improvement of sound policies, and to the delivery of equitable programs, across every area of government. Scientific findings should never be distorted or influenced by political considerations. When scientific or technological information is considered in policy decisions, it should be subjected to well-established scientific processes, including peer review where feasible and appropriate, with appropriate protections for privacy. Improper political interference in the work of Federal scientists or other scientists who support the work of the Federal Government and in the communication of scientific

Beyond Specific Interventions: Multi-year Multi Sectoral Program

U.S. Executive Order with 36 customer experience improvement commitments across 17 Federal agencies

Commitments to improve

Department of Agriculture +

Department of Labor +

Department of Health and Human Services −

The Secretary of Health and Human Services shall:

- ☐ continue to design and deliver new, personalized online tools and expanded customer support options for Medicare enrollees
- ☐ strengthen requirements for maternal health quality measurement, including measuring perinatal quality and patient care experiences, and evaluating the measurements by race and ethnicity to aim to better identify inequities in maternal health care delivery and outcomes
- ☐ to the maximum extent permitted by law, support coordination between benefit programs to ensure applicants and beneficiaries in one program are automatically enrolled in other programs for which they are eligible
- ☐ to the maximum extent permitted by law, support streamlining State enrollment and renewal processes and removing barriers, including by eliminating face-to-face interview requirements and requiring prepopulated electronic renewal forms, to ensure eligible individuals are automatically enrolled in and retain access to critical benefit programs
- ☐ develop guidance for entities regulated pursuant to the Health Insurance Portability and Accountability Act (HIPAA) on providing telehealth in compliance with HIPAA rules, to improve patient experience and convenience following the end of the COVID-19 public health emergency
- ☐ test methods to automate patient access to electronic prenatal, birth, and postpartum health records (including lab results, genetic tests, ultrasound images, and clinical notes) to improve patient experiences in maternity care, health outcomes, and equity

Department of Education +

https://www.performance.gov/cx/executive-order/

Behavioral Science Around the World: Volume II

- Published September 2020
- Organizations including development and aid agencies, multilaterals, NGOs, think tanks with a global presence
- Working through or with governments and local clients
- 150+ insights including how behavioral functions are structured, funded, staffed, and operating

Featured Organizations

- European Commission
- FCDO
- GIZ
- Inter-American Development Bank
- International Committee of the Red Cross
- International Rescue Committee
- OECD
- Overseas Development Institute – SLRC
- Save the Children
- United Nations System Organizations
- USAID Bureau of Global Health
- World Bank Group

BIUs Set-Up

Structure:

- Centralized
- Decentralized
- Blended

Projects and applications:

- Trainings & Capacity Building
- Information Sharing & Public Goods
- Research

Staffing: Formal, informal, on average 10 staff

Sectors:

- Conflict, Safety, and Security (Forced Migration, Social Cohesion, Humanitarian Response, Violence Reduction)
- Education (Students, Teachers)
- Employment (Work Environment, Job seekers, employers)
- Environment (Sustainability, Energy)
- Finance (Investments, Savings, Taxes)
- Governance
- Health and Nutrition
- Social Security and Consumer Protection
- Trainings/Capacity Building/Awareness-building

International Organizations Are Also Directing the Use of Behavioral Science

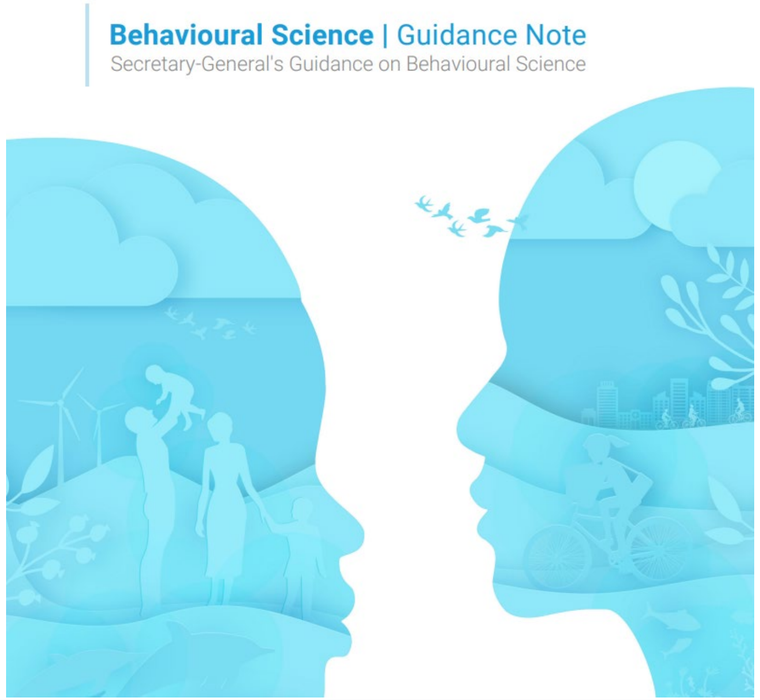
World Health Organization

SEVENTY-FIFTH WORLD HEALTH ASSEMBLY **A75/25**
Provisional agenda item 18.2 **27 April 2022**

Behavioural sciences for better health initiative

Report by the Director-General

In 2019, the WHO Director-General launched an initiative to mainstream and increase the use of behavioral sciences within WHO in support of Member States. The initiative and its learnings were considered fundamental prior to the establishment of a permanent behavioral insights unit at WHO headquarters in the year 2022.



In the year 2021, the United Nations Secretary-General issued a guidance note on behavioral science and made behavioral science one of the pillars of the UN Change initiative.

Goal: to introduce the practice of behavioral science to **enhance the United Nations' mandate delivery and program implementation** and improve administration, such as through **simplifying and reducing unnecessary bureaucratic processes** and fostering a work culture of collaboration.

WHO Mainstreams Behavioral Science

World Health Organization

EXECUTIVE BOARD
152nd session
Agenda item 19

EB152/CONF./6
1 February 2023

Behavioural sciences for better health

Draft decision proposed by Bangladesh, Brunei Darussalam, Jamaica, Japan, Malaysia, Philippines, Qatar, Singapore, Slovakia, South Africa, Thailand and United States of America

The Executive Board, having considered the report of the Director-General on behavioural sciences for better health,[1]

Decided to recommend to the Seventy-sixth World Health Assembly the adoption of the following resolution:

The Seventy-sixth World Health Assembly,

(PP1) Noting that behavioural science is a multidisciplinary scientific approach that deals with human action, its psychological, social and environmental drivers, determinants and influencing factors, and that it is applied in protecting and improving people's health by informing the development of public health policies, programmes, and interventions that can range from legislation and fiscal measures to communications and social marketing, as well as to support other public health efforts;

(PP2) Acknowledging, while noting the contribution of behavioural science in achieving improved health outcomes, the centrality of epidemiological data on the incidence and prevalence of diseases and their risk factors in public health and in informing the development of health policies and the health system;

(PP3) Recognizing the value of high-quality data about behaviours collected with a variety of methods in guiding the health sector, including in health in all policies and whole-of government activities, aimed at reducing risk factors, addressing health determinants, creating environments conducive to health and well-being and increasing equal access to healthy options, and informing the development of behavioural interventions;

(PP4) Acknowledging that supporting individuals to enact healthier behaviours to achieve improved health outcomes is challenging due both to the complexity inherent in human behaviour and the different national contexts, and that no single discipline can provide a complete understanding of the matter, and that developing interventions to change behaviour of either individuals regarding their own health or health service employees and health professionals

On May 29, 2023 all Member States of the World Health Assembly adopted the Behavioural Sciences resolution for Better Health

Goal:

1. Set up regional units to support member states in establishing units
2. Create a global repository of recommended tools & studies
3. Create regional communities for practice

Behavioral Science Around the World: Volume III

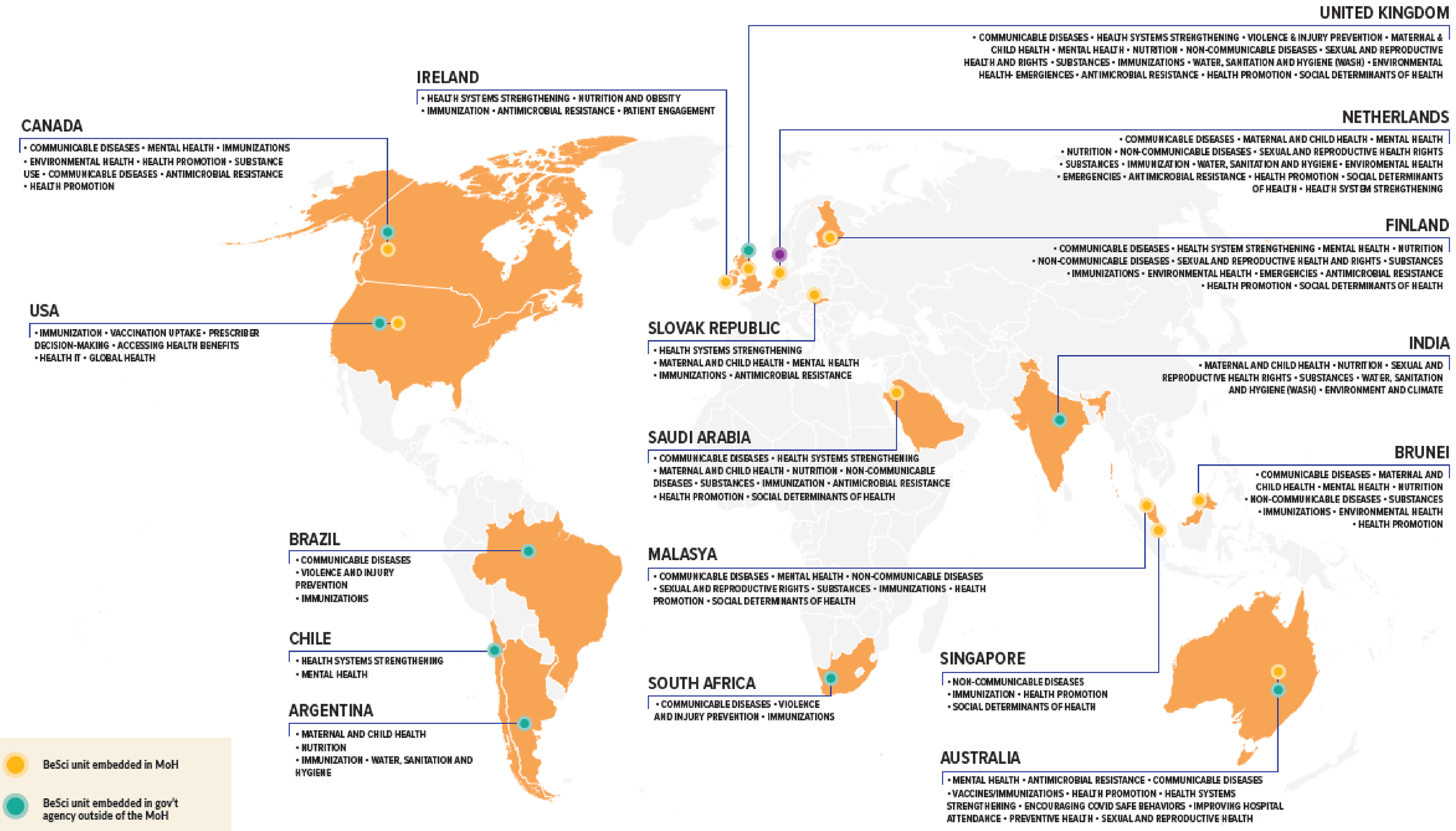
- **Forthcoming (Fall 2023)**

- In partnership with WHO

- Explores the role of behavioral science and the field of public health, profile of governmental behavioral science units working on public health

- Includes a systematic review of behavioral science for COVID-19 pandemic preparedness, response, and recovery

Executive summary of public health areas and behavioral science expertise across units



UNITED KINGDOM
• COMMUNICABLE DISEASES • HEALTH SYSTEMS STRENGTHENING • VIOLENCE & INJURY PREVENTION • MATERNAL & CHILD HEALTH • MENTAL HEALTH • NUTRITION • NON-COMMUNICABLE DISEASES • SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS • SUBSTANCES • IMMUNIZATIONS • WATER, SANITATION AND HYGIENE (WASH) • ENVIRONMENTAL HEALTH- EMERGIENCES • ANTIMICROBIAL RESISTANCE • HEALTH PROMOTION • SOCIAL DETERMINANTS OF HEALTH

IRELAND
• HEALTH SYSTEMS STRENGTHENING • NUTRITION AND OBESITY • IMMUNIZATION • ANTIMICROBIAL RESISTANCE • PATIENT ENGAGEMENT

CANADA
• COMMUNICABLE DISEASES • MENTAL HEALTH • IMMUNIZATIONS • ENVIRONMENTAL HEALTH • HEALTH PROMOTION • SUBSTANCE USE • COMMUNICABLE DISEASES • ANTIMICROBIAL RESISTANCE • HEALTH PROMOTION

NETHERLANDS
• COMMUNICABLE DISEASES • MATERNAL AND CHILD HEALTH • MENTAL HEALTH • NUTRITION • NON-COMMUNICABLE DISEASES • SEXUAL AND REPRODUCTIVE HEALTH RIGHTS • SUBSTANCES • IMMUNIZATION • WATER, SANITATION AND HYGIENE • ENVIROMENTAL HEALTH • EMERGENCIES • ANTIMICROBIAL RESISTANCE • HEALTH PROMOTION • SOCIAL DETERMINANTS OF HEALTH • HEALTH SYSTEM STRENGTHENING

FINLAND
• COMMUNICABLE DISEASES • HEALTH SYSTEM STRENGTHENING • MENTAL HEALTH • NUTRITION • NON-COMMUNICABLE DISEASES • SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS • SUBSTANCES • IMMUNIZATIONS • ENVIRONMENTAL HEALTH • EMERGENCIES • ANTIMICROBIAL RESISTANCE • HEALTH PROMOTION • SOCIAL DETERMINANTS OF HEALTH

SLOVAK REPUBLIC
• HEALTH SYSTEMS STRENGTHENING • MATERNAL AND CHILD HEALTH • MENTAL HEALTH • IMMUNIZATIONS • ANTIMICROBIAL RESISTANCE

INDIA
• MATERNAL AND CHILD HEALTH • NUTRITION • SEXUAL AND REPRODUCTIVE HEALTH RIGHTS • SUBSTANCES • WATER, SANITATION AND HYGIENE (WASH) • ENVIRONMENT AND CLIMATE

USA
• IMMUNIZATION • VACCINATION UPTAKE • PRESCRIBER DECISION-MAKING • ACCESSING HEALTH BENEFITS • HEALTH IT • GLOBAL HEALTH

SAUDI ARABIA
• COMMUNICABLE DISEASES • HEALTH SYSTEMS STRENGTHENING • MATERNAL AND CHILD HEALTH • NUTRITION • NON-COMMUNICABLE DISEASES • SUBSTANCES • IMMUNIZATION • ANTIMICROBIAL RESISTANCE • HEALTH PROMOTION • SOCIAL DETERMINANTS OF HEALTH

BRUNEI
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BRAZIL
• COMMUNICABLE DISEASES • VIOLENCE AND INJURY PREVENTION • IMMUNIZATIONS

MALASYA
• COMMUNICABLE DISEASES • MENTAL HEALTH • NON-COMMUNICABLE DISEASES • SEXUAL AND REPRODUCTIVE RIGHTS • SUBSTANCES • IMMUNIZATIONS • HEALTH PROMOTION • SOCIAL DETERMINANTS OF HEALTH

CHILE
• HEALTH SYSTEMS STRENGTHENING • MENTAL HEALTH

SOUTH AFRICA
• COMMUNICABLE DISEASES • VIOLENCE AND INJURY PREVENTION • IMMUNIZATIONS

SINGAPORE
• NON-COMMUNICABLE DISEASES • IMMUNIZATION • HEALTH PROMOTION • SOCIAL DETERMINANTS OF HEALTH

ARGENTINA
• MATERNAL AND CHILD HEALTH • NUTRITION • IMMUNIZATION • WATER, SANITATION AND HYGIENE

AUSTRALIA
• MENTAL HEALTH • ANTIMICROBIAL RESISTANCE • COMMUNICABLE DISEASES • VACCINES/IMMUNIZATIONS • HEALTH PROMOTION • HEALTH SYSTEMS STRENGTHENING • ENCOURAGING COVID SAFE BEHAVIORS • IMPROVING HOSPITAL ATTENDANCE • PREVENTIVE HEALTH • SEXUAL AND REPRODUCTIVE HEALTH

BeSci unit embedded in MoH

BeSci unit embedded in gov't agency outside of the MoH

BeSci work conducted using third party support

11 Countries with BI Units in Public Health Institutions

2012

Scotland Strategy and Insights BIU

England Behavioral and Social Science Team

2013

Public Health **England** Behavioral Insights Unit

2014

England Health Security Agency BIU

2015

Ireland Research Services and Policy BIU

2016

Finland Cultural, Behavioural and Media Insights Center

United States Centre for Disease Control BIU

2018

Singapore MOH BIU

2019

Saudi Arabia MOH BIU

2020

Malaysia Institute for Health Behavioral Research

Slovakia Behavioral and Experimental Economics Team

2021

Brunei MOH BIU

Canada Public Health Agency BeSciO

Wide Range of Health Policy Areas

	Behavioral method used	Results
Adherence to clinical guidelines	• *Displaying nudges in the form of posters close to electronic alcohol-based hand-rub dispensers in hospitals. (Caris et al., 2018)*	• *Increased compliance with hand hygiene guidelines among healthcare workers.*
Smoking cessation	• *Behavioral-change support to quit smoking delivered via motivational SMSs.(Free et al., 2011)*	• *Significantly increased smoking abstinence after 6 months, verified with self-reported + biochemical measures.*
Healthy food choice and intake	• *Changing accessibility of food items in shops.* • *Changing items order on menus.* *(Rozin et al., 2011; Dayan et al., 2011)*	• *Significant Influence on choice and intake of unhealthy food items.*
Cardiac rehabilitation referrals	• *Redesigning patients' decision pathways from opt-in to opt-out referrals. (Adusumalli et al., 2021)*	• *Significant increase in cardiac rehabilitation referrals.*
Cancer screening and Flu vaccination	• *Decision support intervention prompting clinicians to order cancer screening and flu vaccination before the patient's clinical visit with active choices on their electronic health records. (Patel et al., 2016; Patel et al., 2017)*	• *Significant increase in rates of cancer screening tests and flu vaccination.*
Covid-19 vaccine and social distancing	• *Text-based reminders that make vaccination easy & induce a sense of ownership of the dose.* • *Color-coded visual indicators + written nudges focused on personal & public benefits. (Dai et al., 2021; Banker et al., 2022)*	• *Significant increase in appointment and vaccination rates.* • *Significant increase in social distancing in public places.*
Medication adherence	• *Highlighting the personal health costs of non-compliance to medical treatments.* *(Jachimowicz et al., 2021)*	• *Significant increase in patients' medication adherence.*
Appointment scheduling and attendance	• *Customised reminders via SMS and messages on personal portals. (Gurol-Urganci et al., 2013; Liang et al., 2022)*	• *Positive association between nudge health maintenance reminders and rates of appointment scheduling and attendance.*

Most Common BeSci Competency: Research

Unit	Application of BeSci theory & methods	Comms & social marketing	Data collection	Policy, program and/or service design	Policy making & advocacy	Research	Application of social sciences
Malaysia Institute for Health Behavioral Research							
Slovakia BEET							
Brunei MOH							
Canada PHAC BeSciO							
Scotland Strategy & Insights BIU							

Most Health BI Teams Include Between 5-10 People

Country	Unit	Team Size	Roles
Scotland	Strategy and Insights BIU	10	Staff work on communications and qualitative & quantitative research
England	Behavioural and Social Science Team	6	Core staff are all social scientists with specialisation in research methods or public health
	Public Health BIU		*TBC*
	Health Security Agency BIU	>15	*TBC*
Ireland	Research Services and Policy BIU	2	Team lead & advisory officer
Finland	Cultural, Behavioural and Media Insights Center	4	Two senior researchers, one research manager and one chief specialist, who also leads the work of CUBE.
USA	Centre for Disease Control BIU	7	One member supports project management/budgeting activities. All other staff have backgrounds in health communication, psychology, epidemiology and health science.
Singapore	MOH BIU	2	Behavioral scientists
Malaysia	Institute for Health Behavioral Research	1-5	Work on an existing team with a related mandate
Slovakia	Behavioral and Experimental Economics Team	5	One director; four associates with backgrounds in behavioral economics, public policy and pharmaceuticals
Brunei	MOH BIU	6	Three people who work on the Health Promotion team. One medical doctor and two clinical psychologists. Receiving training in BI via WHO partnership
Canada	Public Health Agency Behavioural Science Office	22	All formally trained as social scientists, with some having expertise in public health or public policy

1 **Behavioral Science and Public Policy**

2 **Behavioral Science @ the World Bank**

3 **From Diagnostic to Evaluation**

eMBeD: Who We Are

- The World Bank's applied Behavioral Science Unit, housed in the Poverty and Equity Global Practice
- 30+ staff, consultants and partners work full time or part time on this portfolio
- Over 108 projects in policy areas: Education, health, conflict and security, taxation, governance, environment, livelihoods, gender

How We Work

1. Problem definition and the context

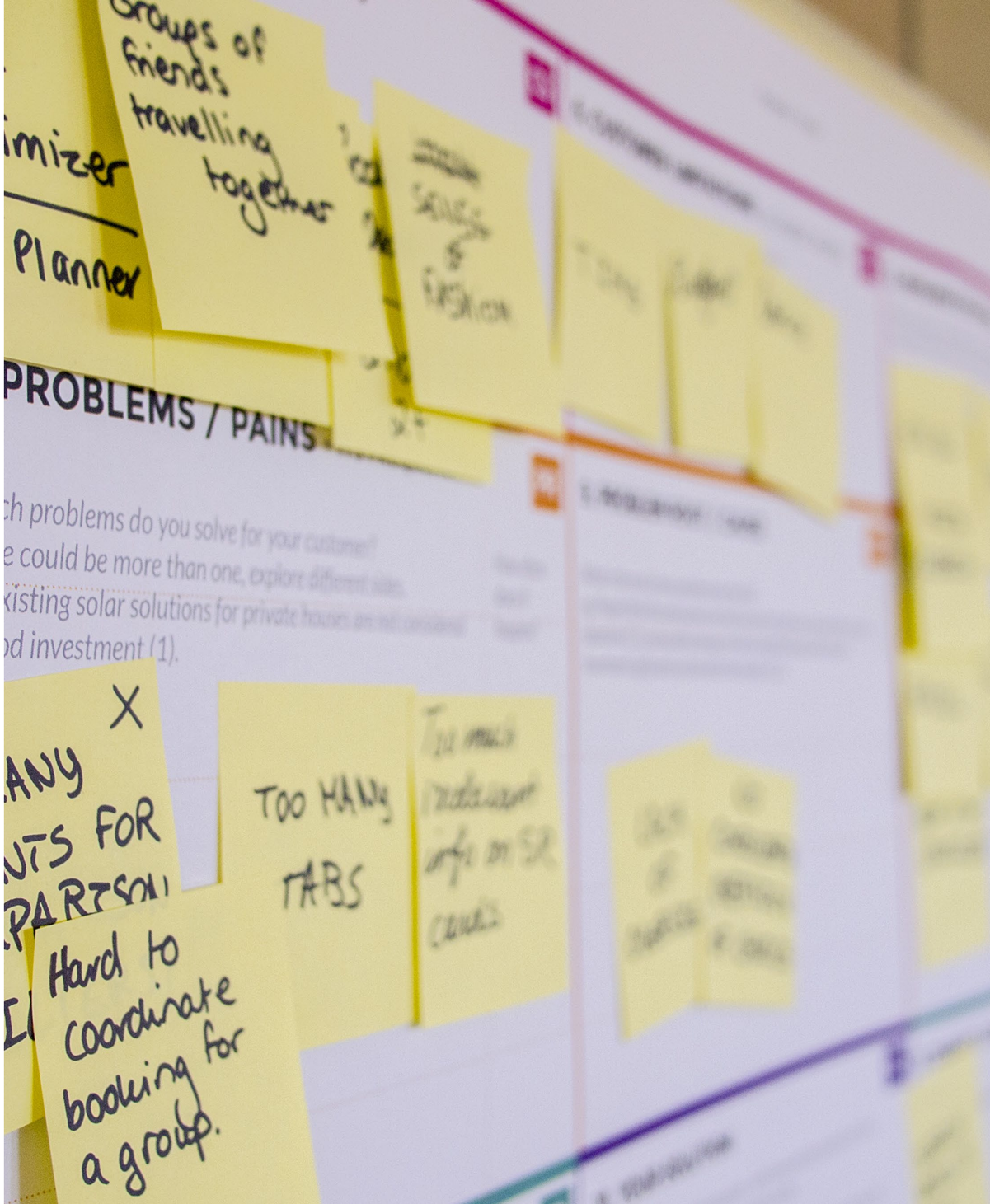
We invest significant resources up front to define and diagnose development problems.

2. Behavioral mapping

We break problems into smaller decisions taken by various actors. This allows us to identify behavioral bottlenecks and ideas on how to solve them.

3. Solutions, evidence, and iteration

We rigorously test these insights to investigate whether they or not they work and iteratively adapt solutions.



What We Do

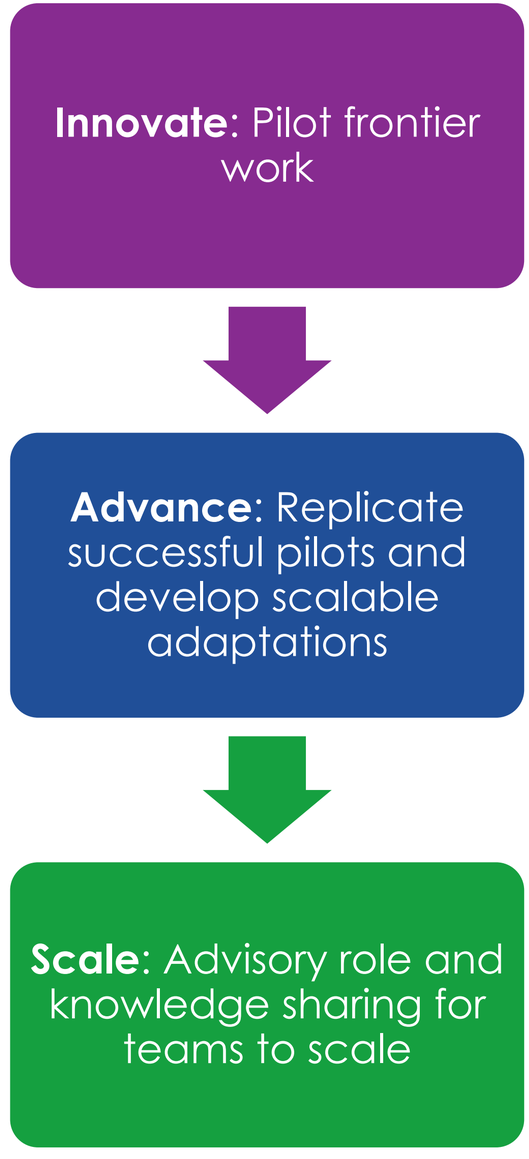
Behavioral Diagnostics

Behavioral Data

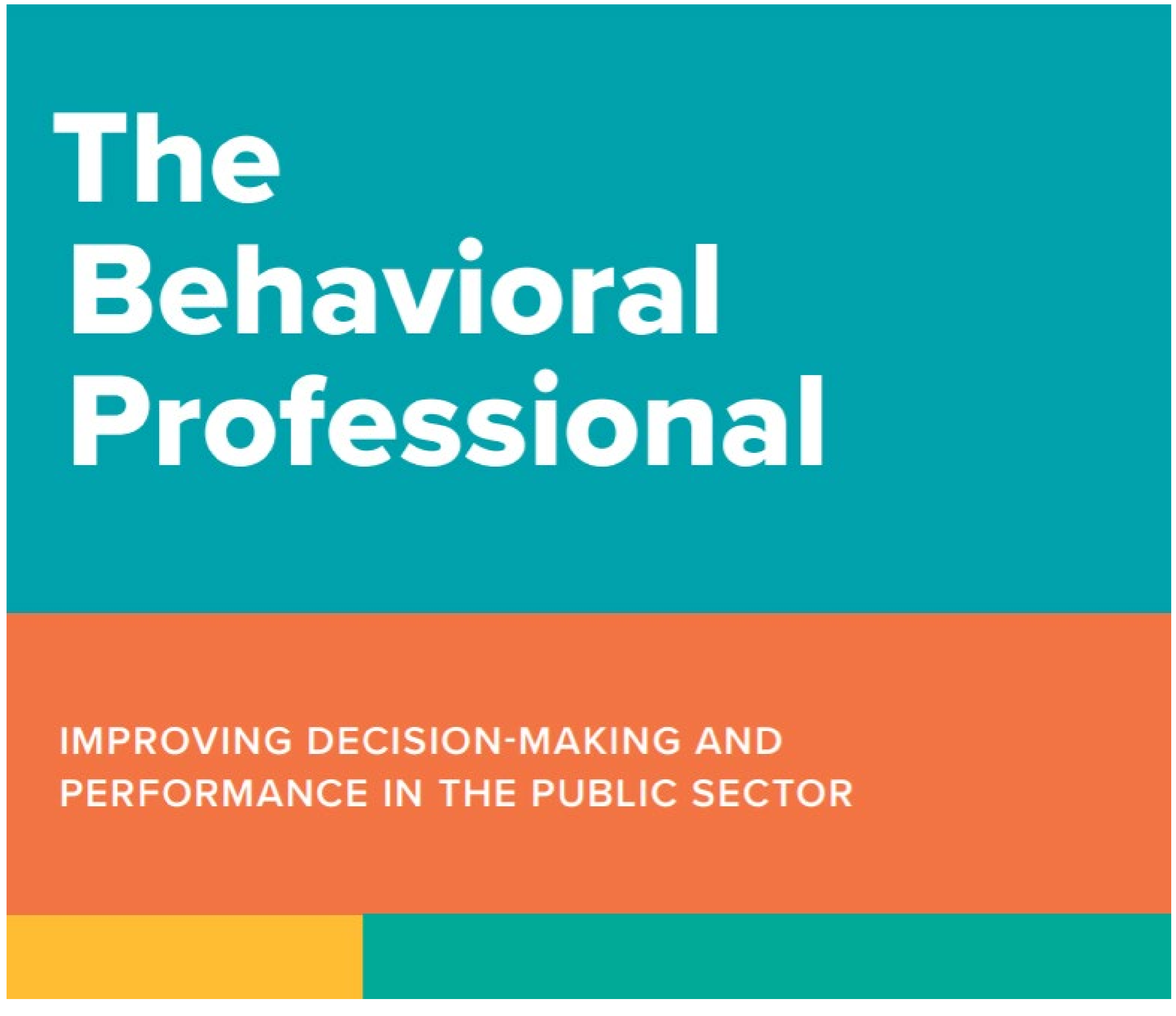
Evidenced-Based Behavioral Solutions

Institutional Capacity and Learning

Public Goods, Toolkits, Global Network



Capacity Building: Integrating Behavioral Science In Public Policy



1. **Argentina -** Consejo Económico y Social*
2. **Colombia** – National Planning Department
3. **Egypt** – Min of Finance (Policy Lab)*
4. **Greece –** General Secretariat of Coordination*
5. **Indonesia -** Min of Finance
6. **Jordan** – Min of Health
7. **Kosovo** – Tax Administration
8. **Kuwait –** Min of Planning*
9. **Malaysia** - Min of Finance and Inland Revenue Board
10. **Morocco –** Min of Finance*, Min of Interior, Min of Health
11. **Peru** - Min of Education (MINEDULAB)*
12. **Saudi Arabia –** Min of Health*
13. **South Africa** - Western Cape Provincial Government; Dept of the Premier
14. **Tanzania** - Tanzania Revenue Administration
15. **Turkey -** Ministries of Economy and of Trade*; Municipality of Izmir

** Behavioral Science Units*

1 **Behavioral Science and Public Policy**

2 **Behavioral Science @ the World Bank**

3 **From Diagnostic to Evaluation**

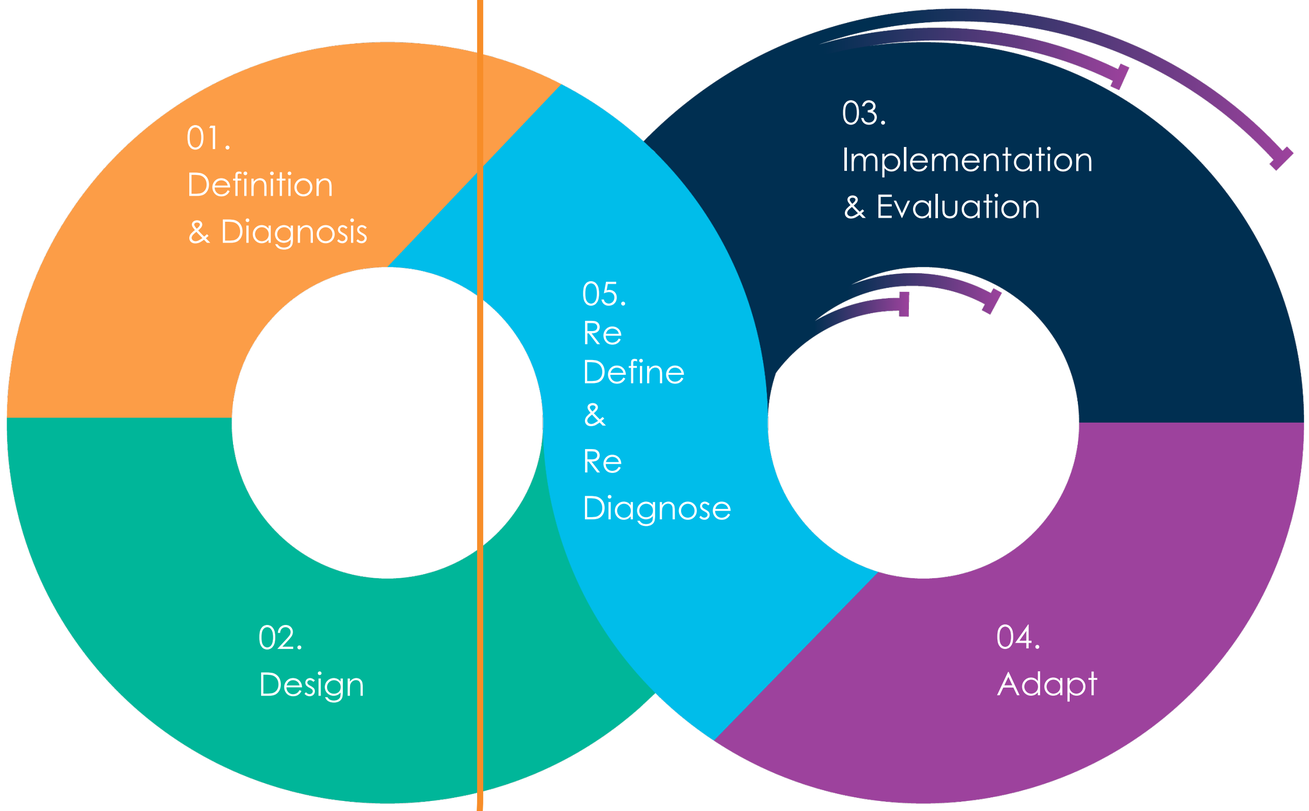
How We Work

01.

- Identify the problem
- Collect background information and available data
- Diagnostic sessions to develop behavioral map
- Fieldwork to finalize behavioral map

02.

- Develop list of potential interventions
- Narrow down to most feasible



03.

- Set up process for randomization
- Trial intervention
- Monitor treatment and control groups
- Analyze data at endline

04.

- Identify key learnings
- Identify areas for further work

05.

- Investigate constraints to scaling work
- Identify further behavioral challenges

Introduction to Behavioral Diagnostic

To **develop better policies**, services, products, or programs, it is crucial to **understand the context** in which behaviors are operating before trying to change them

- ❑ A comprehensive understanding of the context in which behaviors are situated
- ❑ A good sense of the critical barriers blocking the desired behavior
- ❑ Sharp insights into the opportunities to leverage
- ❑ A good understanding of what to focus on
- ❑ A solid foundation to design and test a solution

Flow

Plan

- Look at existing knowledge
- Compile insights
- List research questions, methods and corresponding resources.

Collect data

- Collect data until insights consistency emerges,
- Qualitative data (interviews, Focus groups etc),
- Quantitative data (surveys, administrative etc),
- Literature review.

Map information

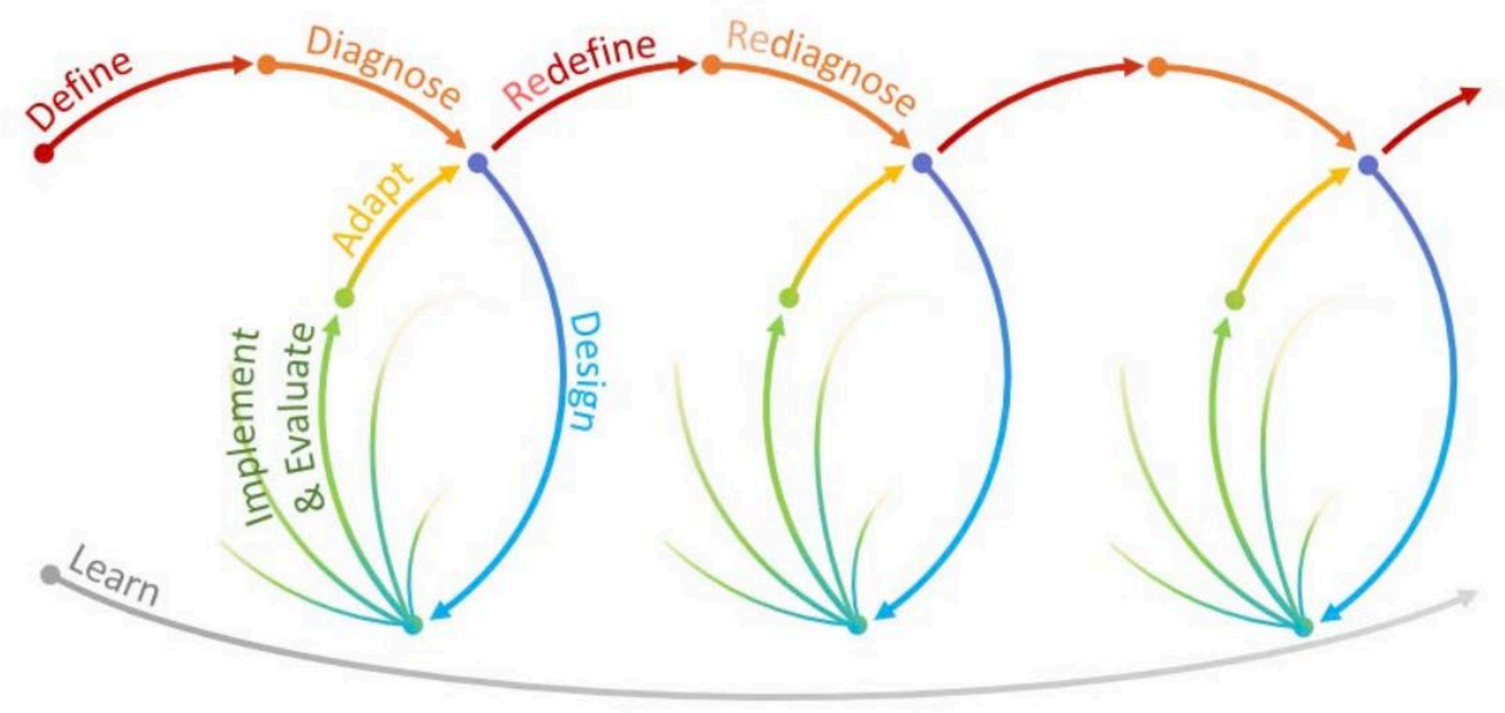
- Customer journey,
- COM-B,
- Behaviourally informed theory of change,
- Behavioral map,
- Bottlenecks, behavioral baises and barriers,
- Opportunities and levers.

Strategize

- Share insights with teams and experts,
- Created weighted scorecard,
- Prioritise areas for innovations
- Launch the next phase of designing solutions

Iterative

The process is iterative: it will generate more questions, more data collection, and more insights as you go.



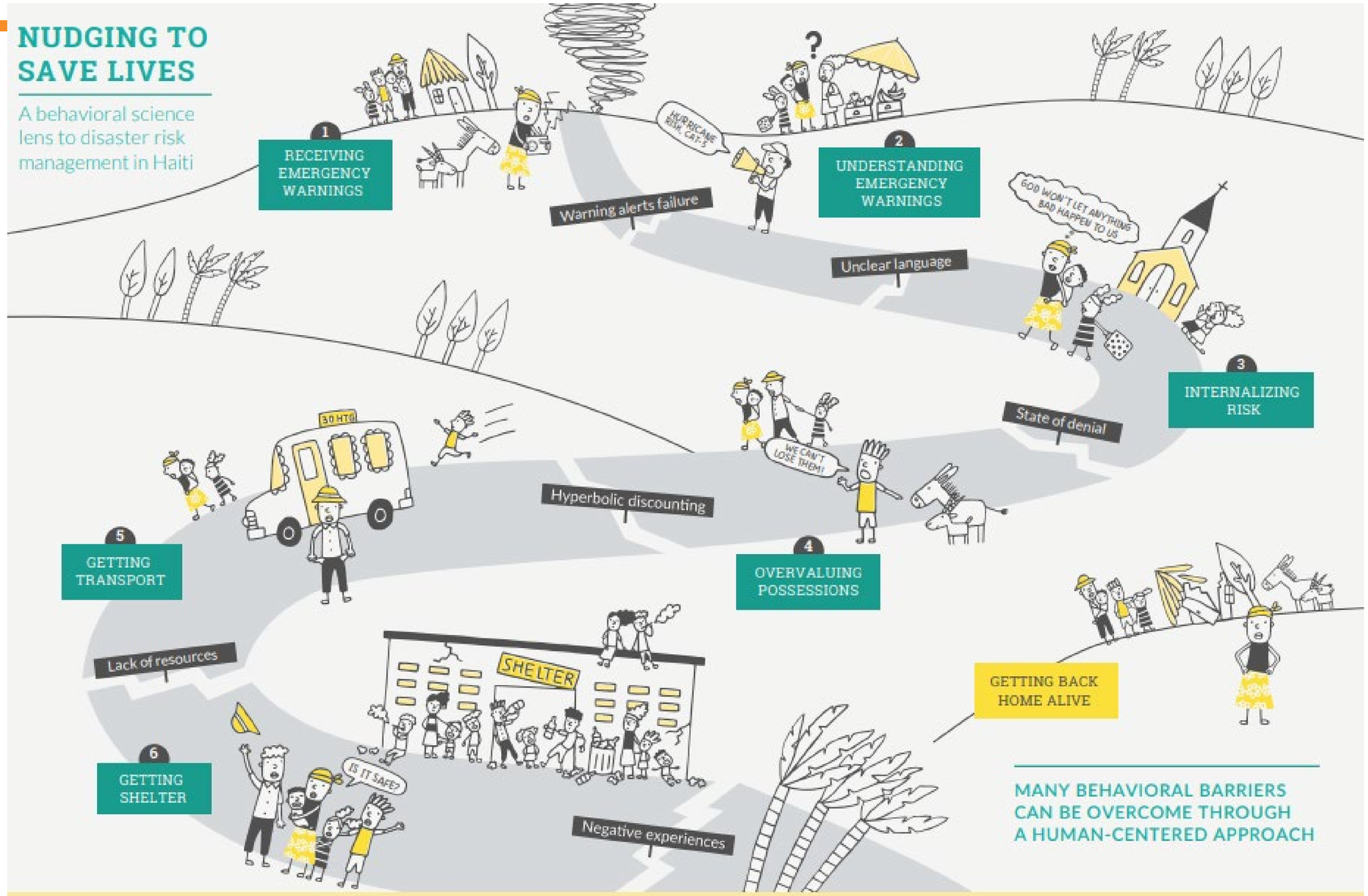
Adapted from WDR (2015)

The Pillar: The User Journey Map

- **The goal**: produce a comprehensive map of the different steps undertaken by an actor when engaging in a behavior, the barriers hindering their process and the levers.

- **It's both a data collection tool, and a visualization and innovation tool:** we use it as a reference to collect data, we use it to visualize the situation, context, decisions, actions, etc.

Behavioral Diagnostics: Improving Early Warning Systems



USING BEHAVIORAL INSIGHTS TO IMPROVE DISASTER PREPAREDNESS, EARLY WARNING AND RESPONSE MECHANISMS IN

HAITI

eMBeD GFDRR WORLD BANK GROUP

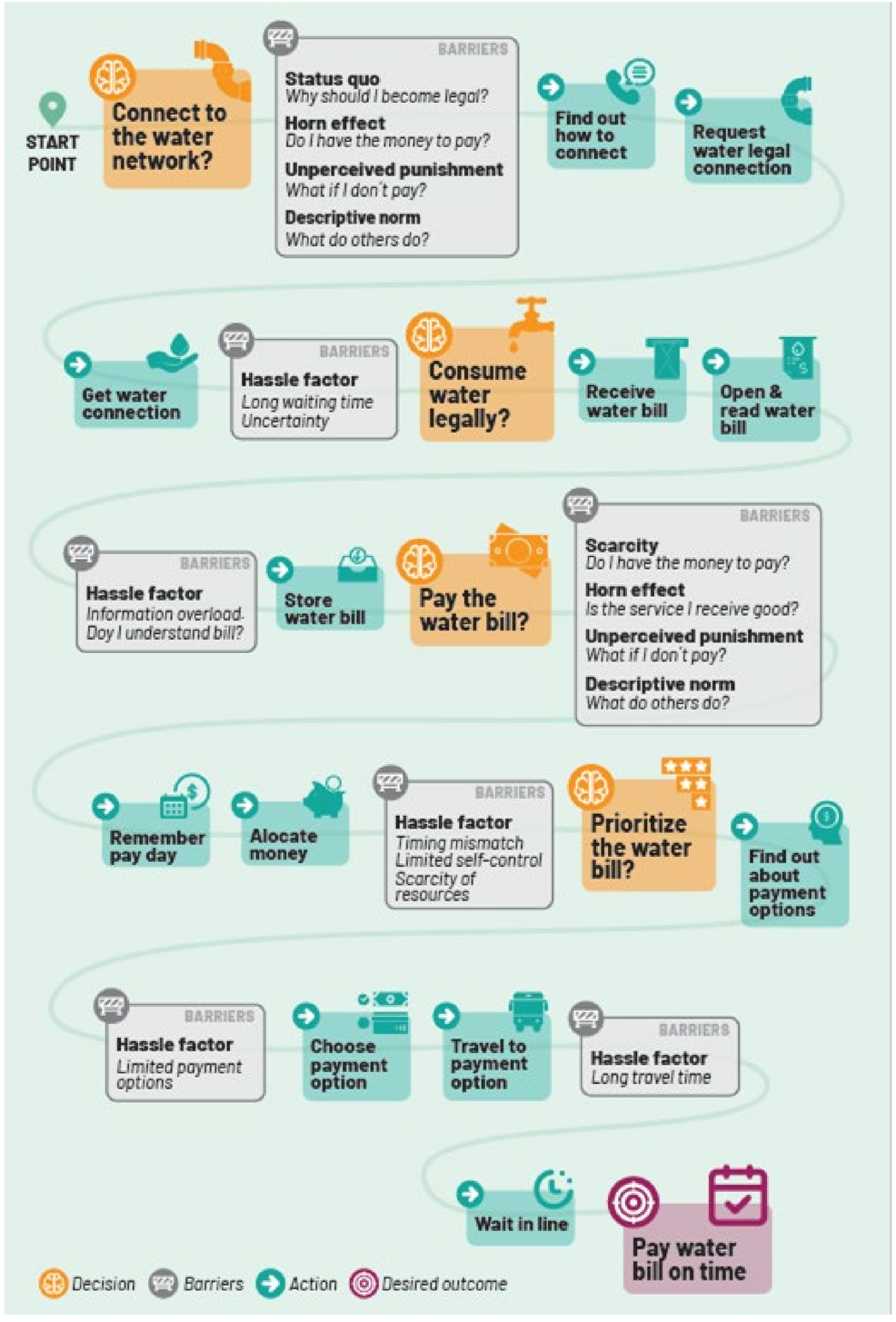
Natural Disasters and Addressing Evacuation Decisions

A national campaign reached 4,000,000 people in high-risk regions to increase awareness of the upcoming hurricane season using online platforms, mobile phones, and community radio. Viral conversation in national media, created new trusted messengers for the institution in charge of Early Warning Systems, as well as new mechanisms for future distribution of messages (and a new hit song).

Reducing Water And Revenue Losses in Brazil

- 50% of residential customers are in default of payment for water
- In August 2019, almost 40% of customers had a connection status suggesting a potential circumvention or clandestine practice.
- Estimated 18% of residents connect to illegal water distribution networks and consume water for free

Behavioral Process Map



Non-behavioral Solutions

1 Recent efforts-solutions taken by the utility company:

A **Hiring information and business intelligence services.** To optimize its collection strategy and learn more about its defaulting clients (e.g. updated contact information and income estimates).

B **Increasing clients' payment options.** By accepting debit cards at all offices, and credit card installment payments for past due debts.

C **Incentivizing clients to negotiate debts.** The Utility offers discounts on defaulting penalties, amounts due and low or no interest installment plans to defaulters of more than 90 days. > *However, this program was cancelled after 3 years when it was perceived that a share of consumers had grown to expect the award and started to take advantage of the system.*

D **Implementing revenue enhancement and loss reduction performance-based contracts.** Outsourcing operation to a third party which invests in technology, equipment (e.g. meters), and customer service personnel, and gets rewarded based on increased revenues and recovered debts.

Behavioral Solutions

Improve trust & relations between the Utility company & consumers:

- *Publicly announcing intentions to improve water service delivery and communicating the company's progress*
- *Announcing audits of illegals' activities and demonstrating actions taken against bad behavior*
- *Recognizing positive behavior by using existing communication channels*

Reduce hassle factors to facilitate payment:

- *Simplifying the bill and personalizing messaging*
- *Reduce payment wait time*
- *Promote pay day as an active choice*

Provide incentives to increase compliance:

- *Provide (small) financial incentives*
- *Promote the use of planning tools and send reminders helping clients organize their finances*
- *Use social motivation and prescriptive norms to influence positive behaviors.*
- *Engage communities with competitions and lotteries*

Piloting Solutions

EXPERIMENT GOAL ▼

Increase water bill payments of defaulting residential clients in Recife

OUTCOME MEASURES ▼

1. % of clients that pay water bill on time (& within 7 days, 29 days)
2. Total amount paid

TARGET SAMPLE ▼

210,945 residential clients with default status

Piloting Solutions

SMS Traditional

Mrs ANTONIA, your invoice due on 03/31/2019 for property 91111 is already available for payment

SMS Social Norms

...the majority of the inhabitants of greater Recife pay on time. Don't be part of the minority who don't pay.

SMS Dissuasion

...avoid having your water supply cut off

SMS Reciprocity

... we work hard to bring water to your family

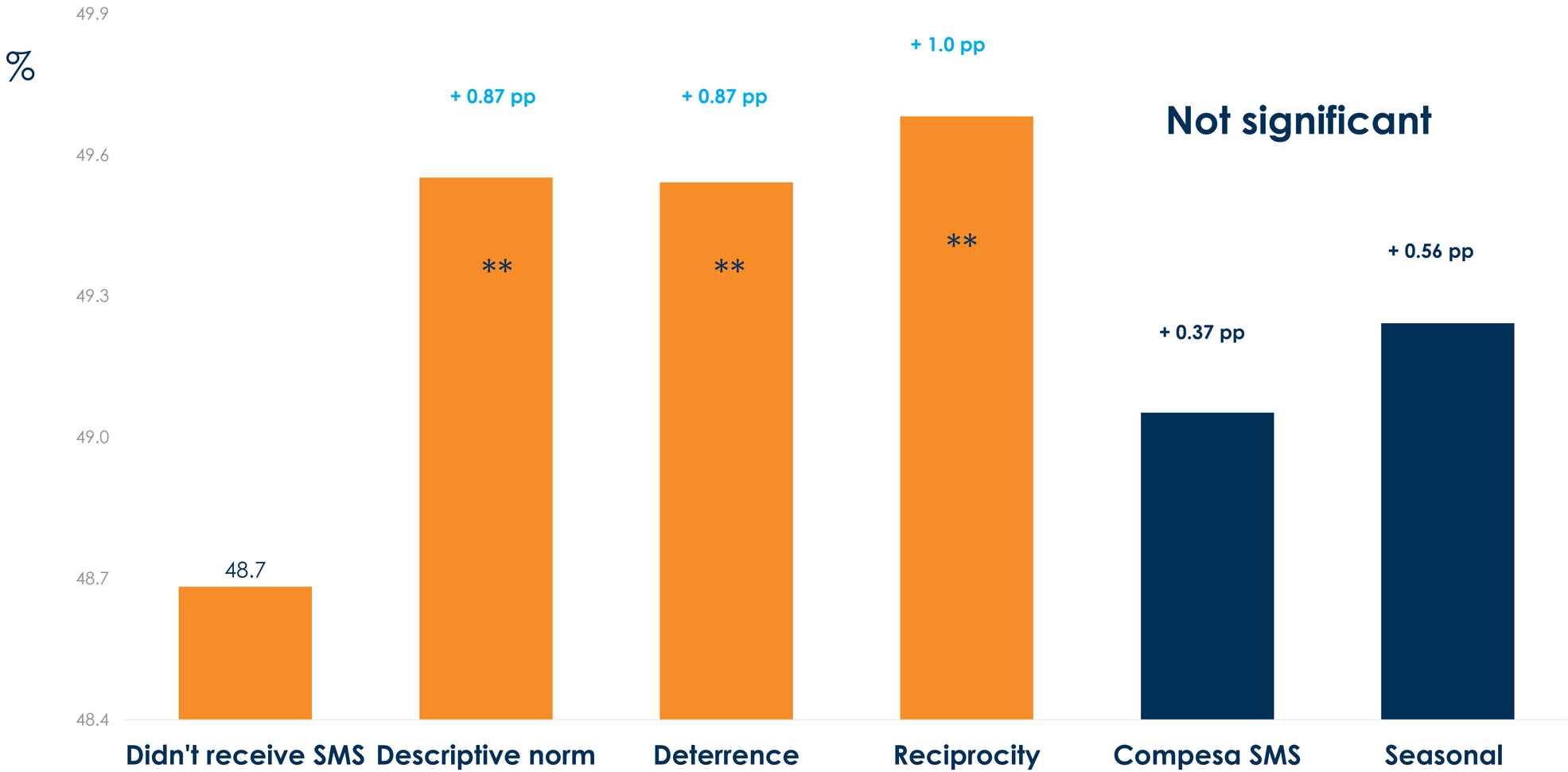
SMS Seasonal

...enjoy your 13th salary and catch up on your payments/

Control

No SMS

Descriptive Norm, Deterrence, and Reciprocity SMS Increase Payment Within 7 Days



Not significant

For every 1,000 clients that received the reciprocity SMS, 10 extra client paid within 7 days compared to those that didn't receive an SMS

OLS estimates for 811,957 points. Differences between SMS and the control group are different at significance levels of ***p<0.01 **p<0.05 *p<0.1. Standard errors are clustered at the individual and month level. Estimates control for water bill amount. The value for the control group is defined at baseline (September).

Other Behavioral Solutions

1: **Publicly announce** intention to improve water service delivery.

2: **Demonstrate** action taken against "bad" behavior

3: **Recognize positive behaviors** using existing communication channels

4: **Simplify** billing and personalize messaging

5: **Reduce** payment waiting **time**

6: **Use social motivation** to influence positive behaviors

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