



Integrating Behavioral Economics into Program Design

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Today's Objectives

To teach a way to incorporate behavioral economics techniques into program planning and program design.

Learning Outcomes

- Introduce participants to accessible resources on behavioral design, specifically behavioral economics
- Build technical capacity for participants to apply behavioral design to their own programs
- Teach how behavioral design principles can be used in two ways to improve understanding and for design
- Discuss how organizations can lead clients/beneficiaries through a similar process to improve intervention co-design

Agenda

- ① Behavioral Models
- ② Behavioral Economics Theory
- ③ BE to Improve Understanding
- ④ BE to Amplify Design
- ⑤ Integration into Programs

1: Behavioral Models

Behavioral Models

There are many models that try to understand and/or explain behavior
(with the goal of influencing it)

Health Belief Model

Theory of Reasoned Action

Trans-Theoretical Model

Integrated Behavioral Model

Socio-Ecological Model

Oversimplified 'Traditional' Behavioral Model



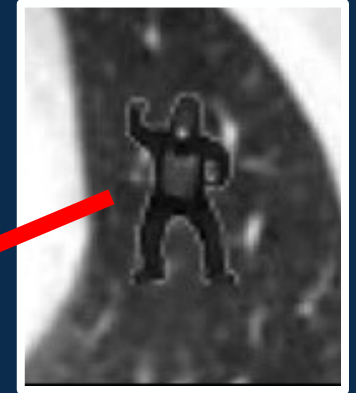
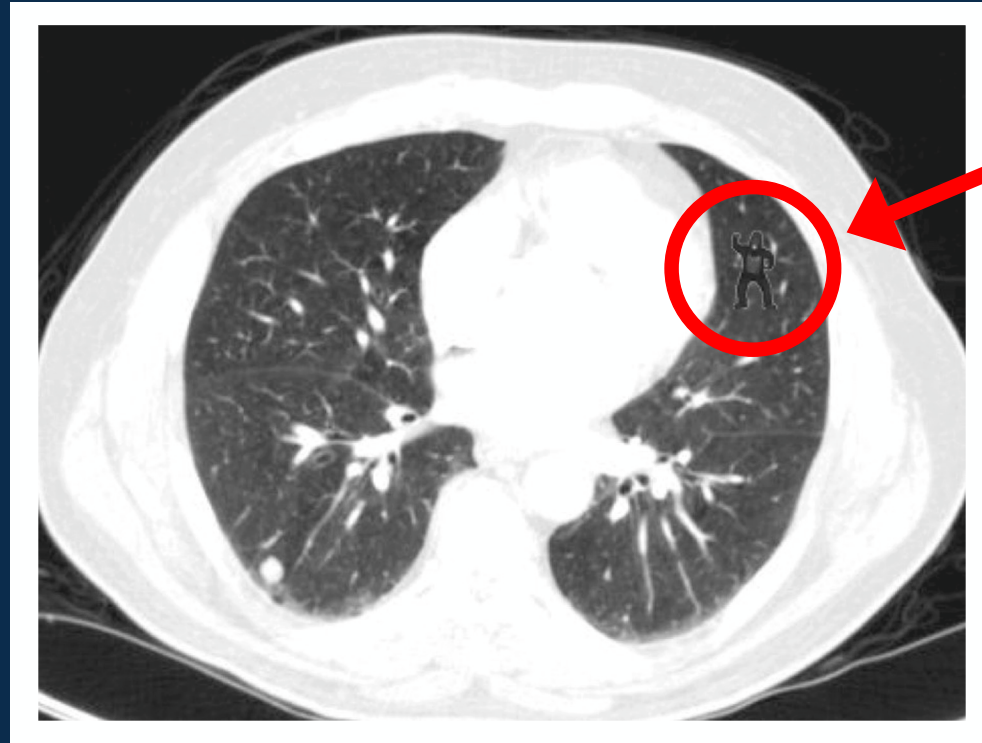
But do these
models *really*
explain *your*
behavior?

(a fun example...)

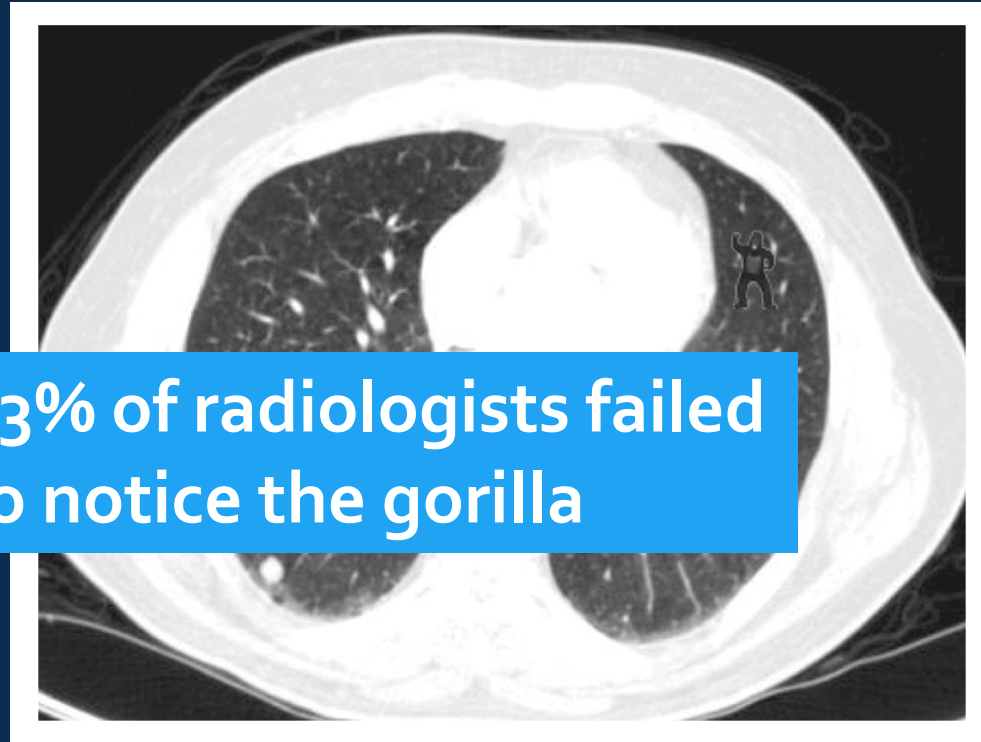
Radiologists and MRIs



Radiologists and MRIs



Radiologists and MRIs



83% of radiologists failed to notice the gorilla

Drew, T., Vo, M.L.H., & Wolfe, J.M. (2013). The invisible gorilla strikes again: Sustained inattention blindness in expert observers. *Psychological science*, 24(9), 1848-1853.

**Did the behavioral
models explain
radiologists failing
to see the gorilla?**

2: Behavioral Design

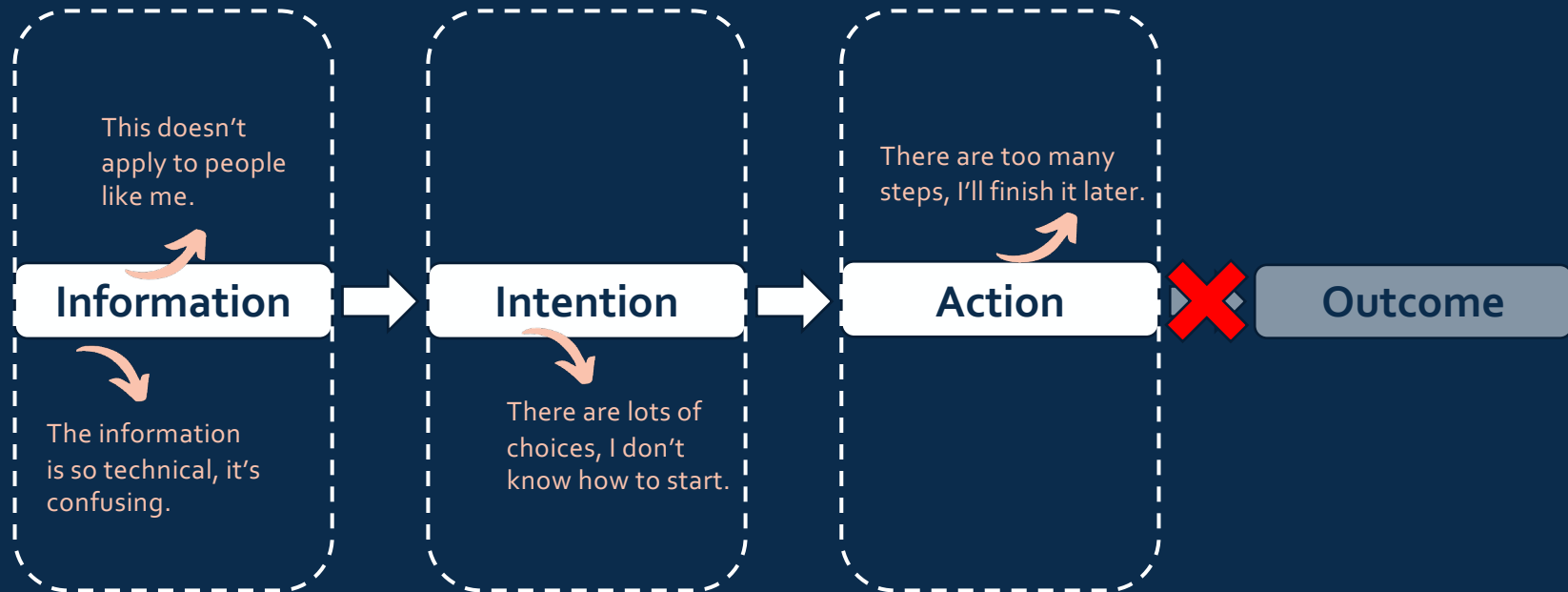
“Traditional” Behavioral Model



Things that Get in the Way of Doing a Behavior



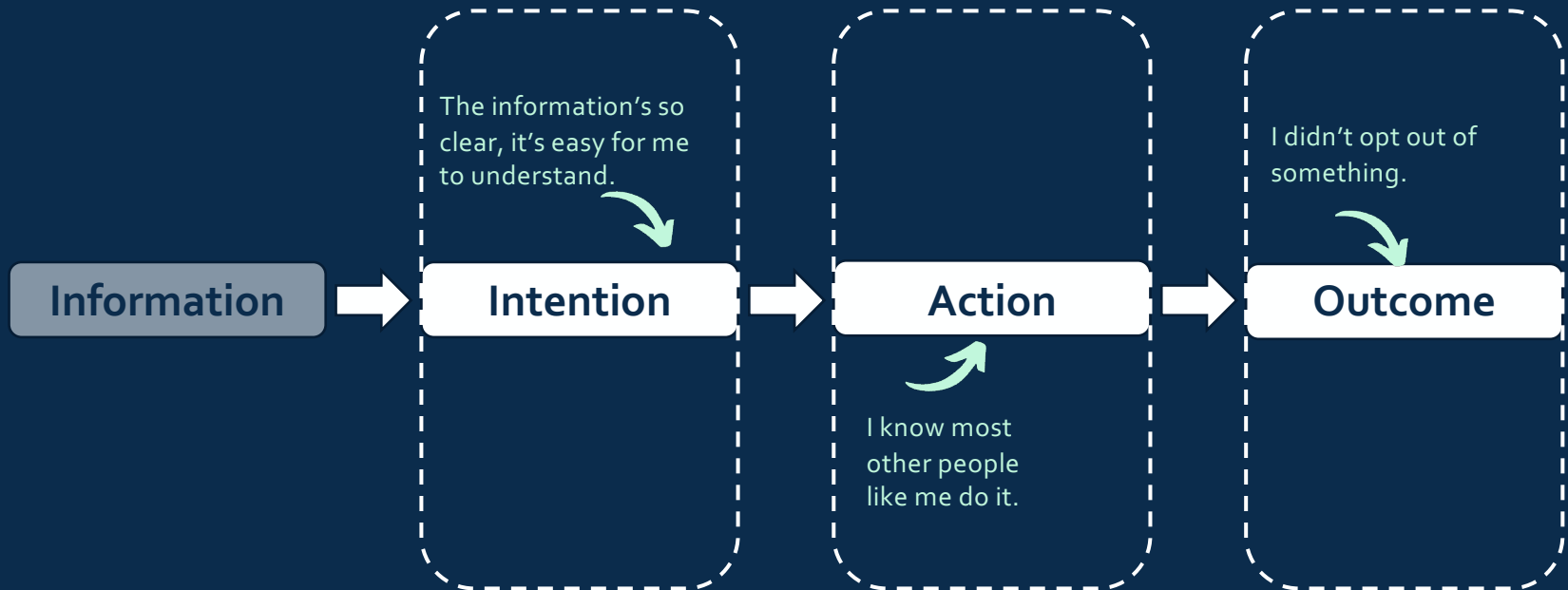
Things that Get in the Way of Doing a Behavior



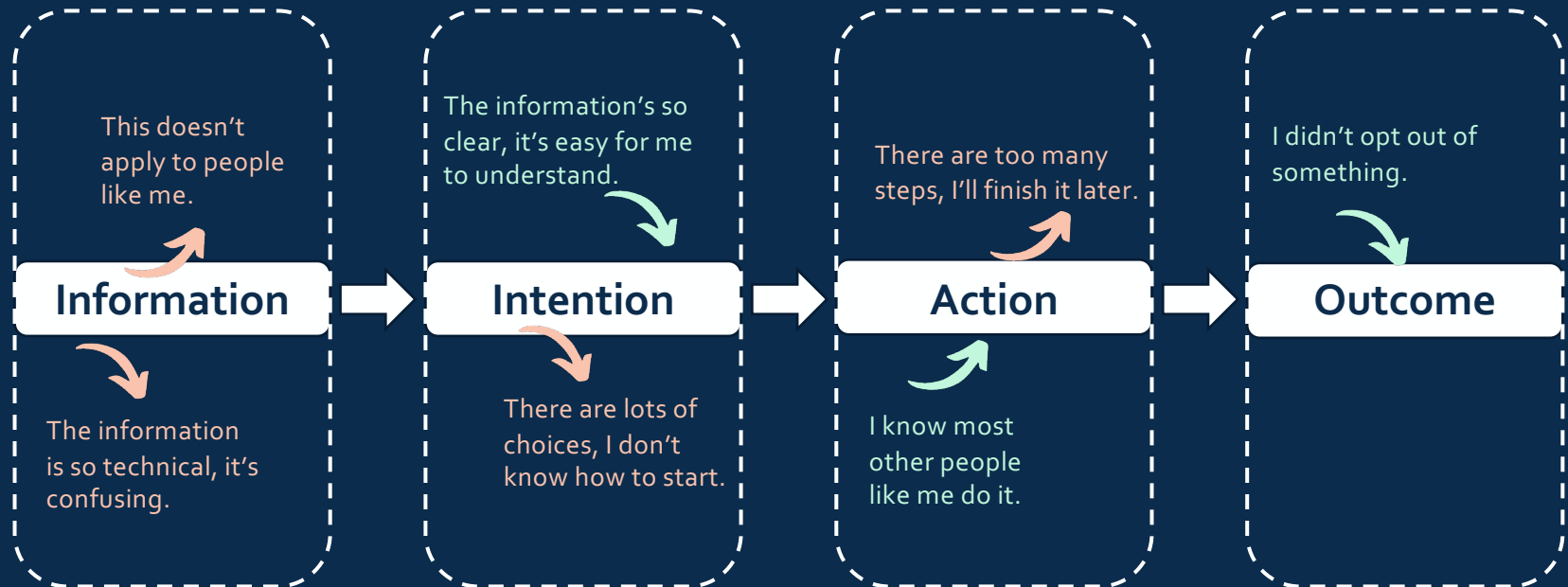
Things that **Help** with Doing a Behavior



Things that Help with Doing a Behavior



“Real Human” Behavioral Model



Why is Behavioral Economics important?

BE acknowledges that humans do not always think or act “rationally” or in their “best self-interests”

More traditional approaches (i.e., IEC and traditional economics) assume that people make decisions and act in their best self-interests.

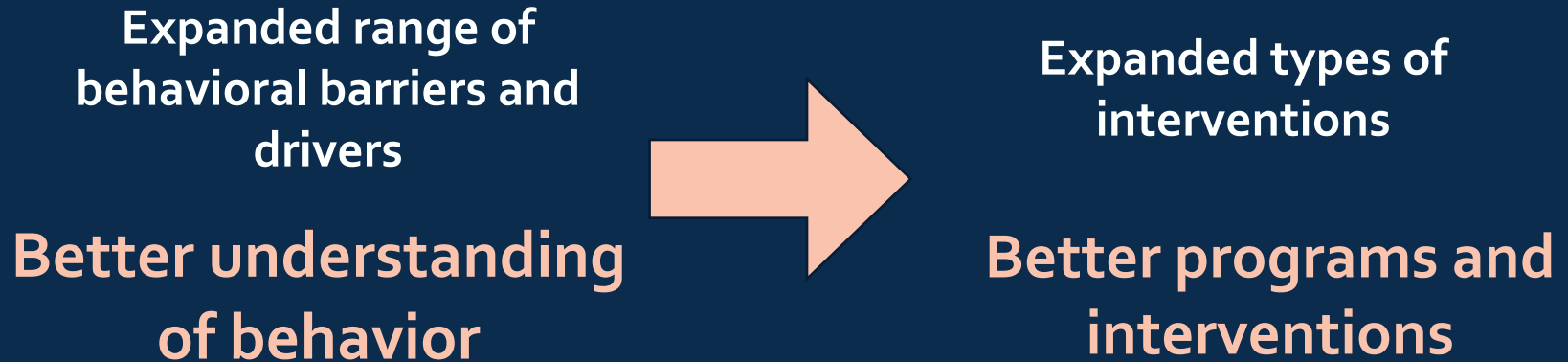
This key insight - that humans do not always make decisions in their best self-interests - has significant implications for how we need to design interventions

Why is BE important?

If you assume people act in their best self-interests, then you assume that they weigh the costs and benefits of doing a behavior so you just need to provide them with information

BUT when you acknowledge that **humans do not always make decisions or act in their own best self-interests**, then you **expand the range of behavioral barriers and drivers** and thus you **expand the types of interventions** that can influence behavior

Why is BE important?



2: Behavioral Theory

The Theory: System 1 and System 2 Thinking

(Also called Dual Process or Dual Systems Theory)



*This theory by Daniel Kahneman and Amos Tversky won the Nobel Prize in Economics in 2002.

System 1 and System 2 Thinking

System One is... Reflexive
quick, automatic, instinctual



System Two is... Reflective
slow, deliberate, calculating



System 1 and System 2 Thinking

System One is... Reflexive
quick, automatic, instinctual



System Two is... Reflective
slow, deliberate, calculating



Drivers

- What routine and habits do I normally do?
- What do I see or assume other people are doing?
- What mental shortcuts do I unconsciously use to make decisions on this topic?

Drivers

- What are my goals?
- What do I think other people expect me to do?
- What are the nuances to this situation and how should I weigh them?

System 1 and System 2 Thinking

System One is... Reflexive
quick, automatic, instinctual



System Two is... Reflective
slow, deliberate, calculating



Most of the time Systems 1 & 2 work well together – humans frequently switch between them numerous times per day

System 1 and System 2 Thinking

System One is... Reflexive
quick, automatic, instinctual

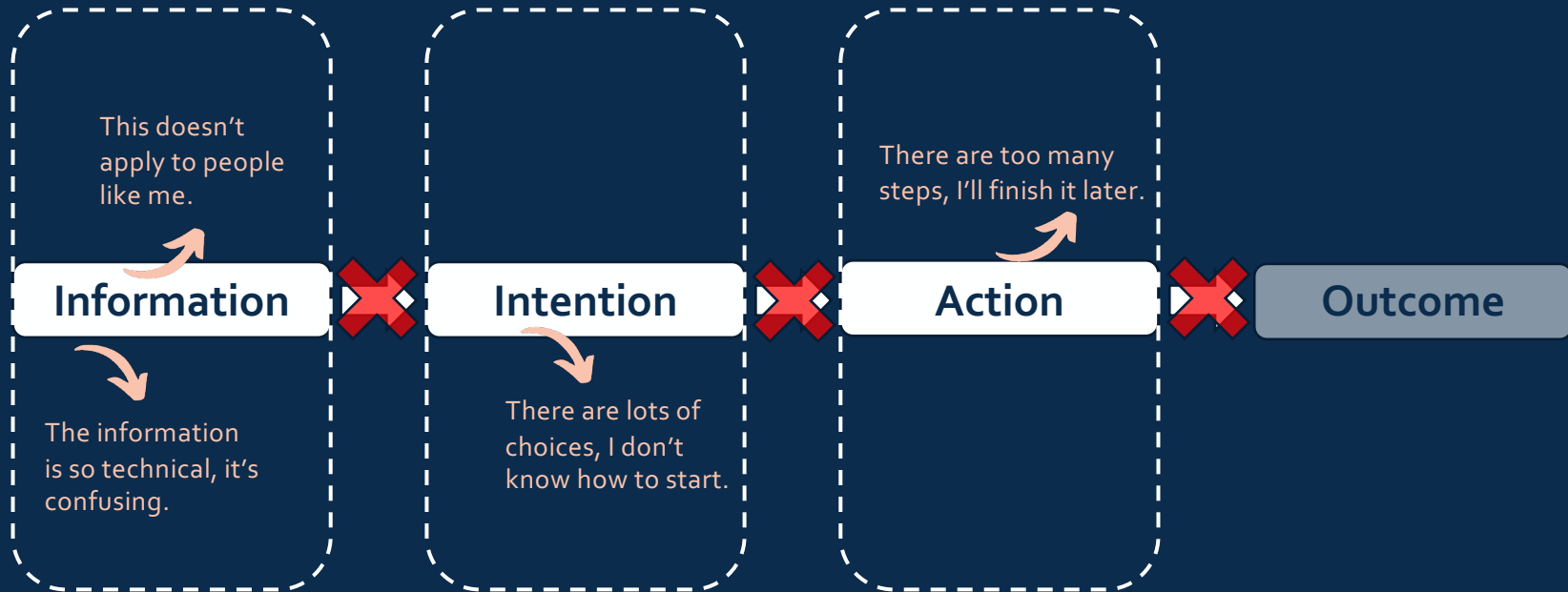


System Two is... Reflective
slow, deliberate, calculating

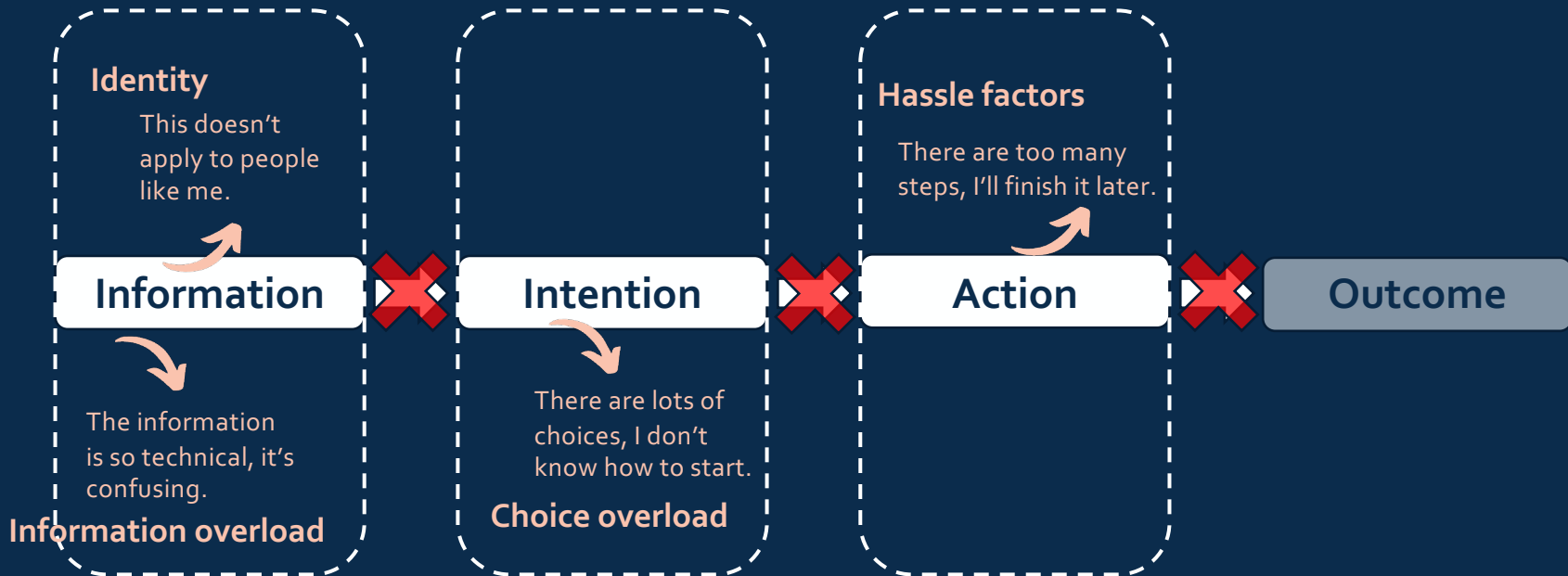


We call the **predictable and systematic** errors in thinking and acting **cognitive and behavioral biases QUIRKS(!)**

Remember those “Things” that Get in the Way of Doing a Behavior



Cognitive and Behavioral Quirks Get in the Way



System 1 and System 2 Thinking

System One is... Reflexive
quick, automatic, instinctual



System Two is... Reflective
slow, deliberate, calculating



Cognitive and behavioral biases quirks are **not good or bad** -
they are just how humans think

Understanding that **all people** exhibit these quirks in different
situations and contexts **removes the "blame and shame"**

System 1 and System 2 Thinking

System One is... Reflexive
quick, automatic, instinctual



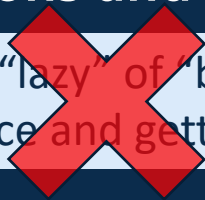
System Two is... Reflective
slow, deliberate, calculating



Cognitive and behavioral biases quirks are **not good or bad** -
they are just how humans think

Understanding that **all people** exhibit these quirks in different
situations and contexts **removes the "blame and shame"**

Clients are "lazy" or "bad" for not
following advice and getting vaccinated



Hassle factors and present bias get in
the way of clients getting vaccinated

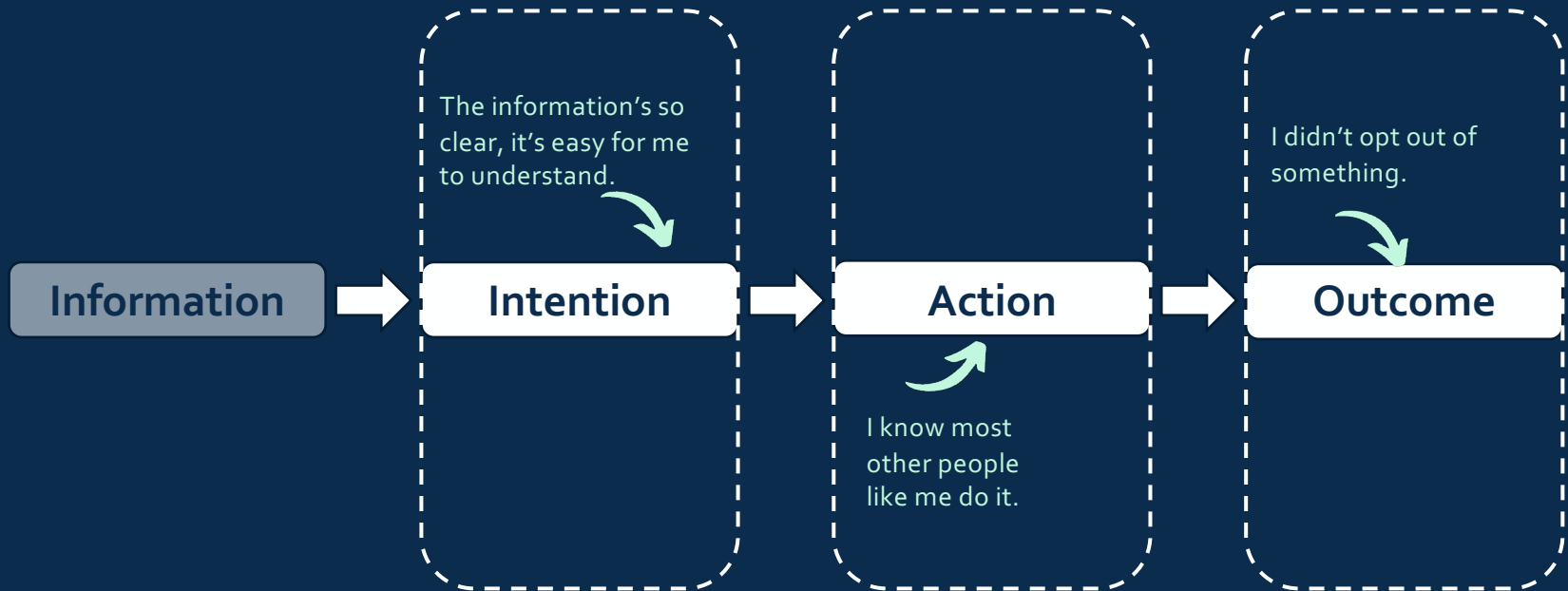
Goal of Behavioral Economics

Diagnose when predictable quirks are negatively influencing human behavior

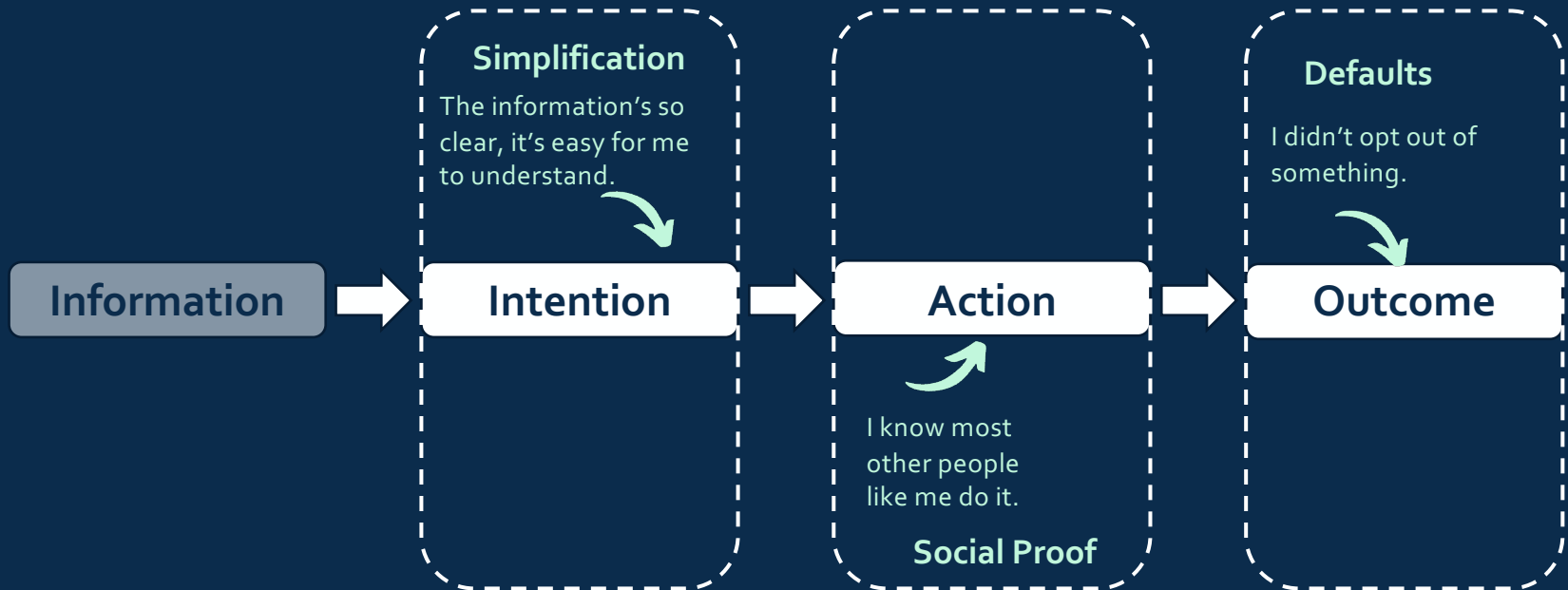


Positively influence behavior using quirks and other small changes - called "nudges"

Remember those “Things” that Help with Doing a Behavior



Nudges Help with Doing a Behavior



Goal of Behavioral Economics

Diagnose when predictable quirks are negatively influencing human behavior

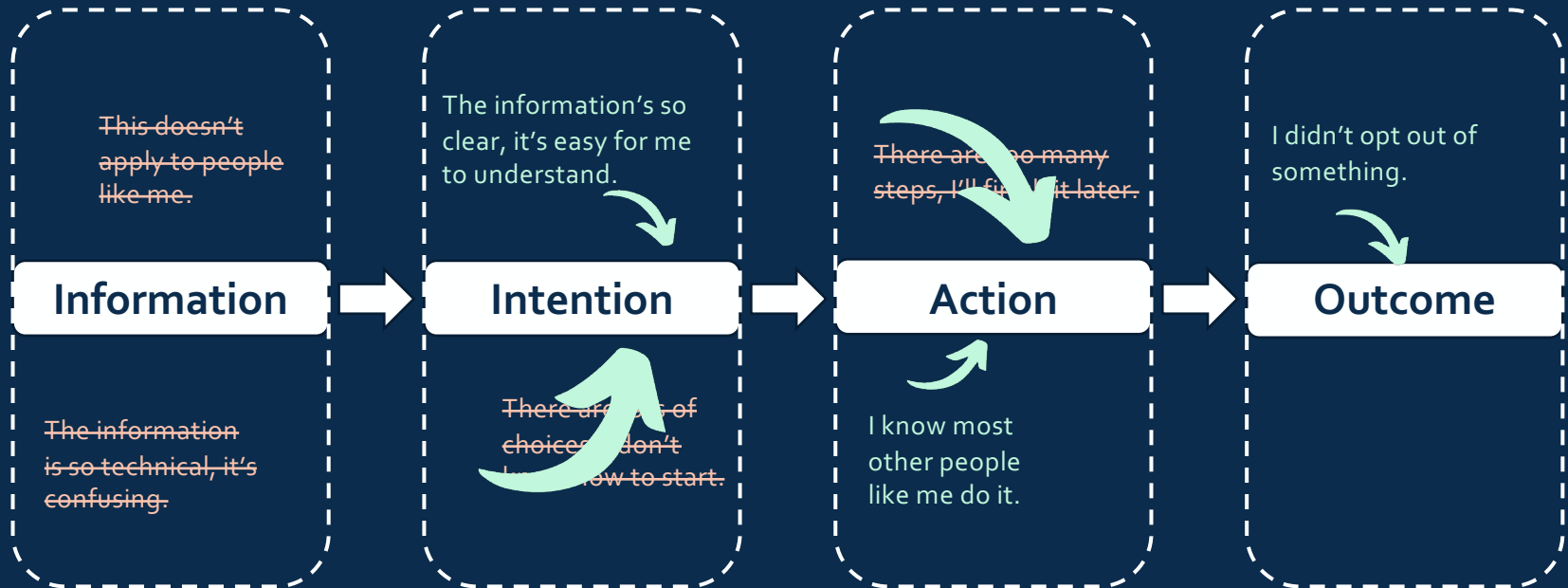
Identify those "things" that are getting in the way



Positively influence behavior using quirks and other small changes - called "nudges"

Use "things" to keep people moving towards a behavior

Goal of Behavioral Economics



Goal of Behavioral Economics

Diagnose when predictable quirks are negatively influencing human behavior

Identify those "things" that are getting in the way



Positively influence behavior using quirks and other small changes - called "nudges"

Use "things" to keep people moving towards a behavior

So how can I do
this so my
program is
innovative and
effective?

Goal of Behavioral Economics

First half

Diagnose when predictable quirks are negatively influencing human behavior

Identify those "things" that are getting in the way



Second half

Positively influence behavior using quirks and other small changes - called "nudges"

Use "things" to keep people moving towards a behavior

III: BE to Improve Understanding

BE can (and should!) be integrated into your existing SBC process

Behavioral Design Process

- 1 Identify a specific behavior
- 2
- 3 behavioral diagnosis by identifying barriers
- 4 Validate and prioritize barriers into key bottlenecks
- 5 Ideate intervention ideas
- 6 Prototype, iterate, pilot, test, and evaluate

Behavioral Design Process

- 1 Identify a specific behavior
- 2 Map out decisions and actions (in client's context) leading to that behavior
- 3 Expand behavioral diagnosis by identifying "quirks" and other barriers
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Behavioral Design Process

- 1 Identify a specific behavior
- 2 Map out decisions and actions (in context) leading to behavior

Identify a *specific* behavior

- Start with a specific behavior
- Programs typically start with outcomes
- Identify multiple behaviors that lead to your outcome and prioritize them

Behaviors Lead to Outcomes



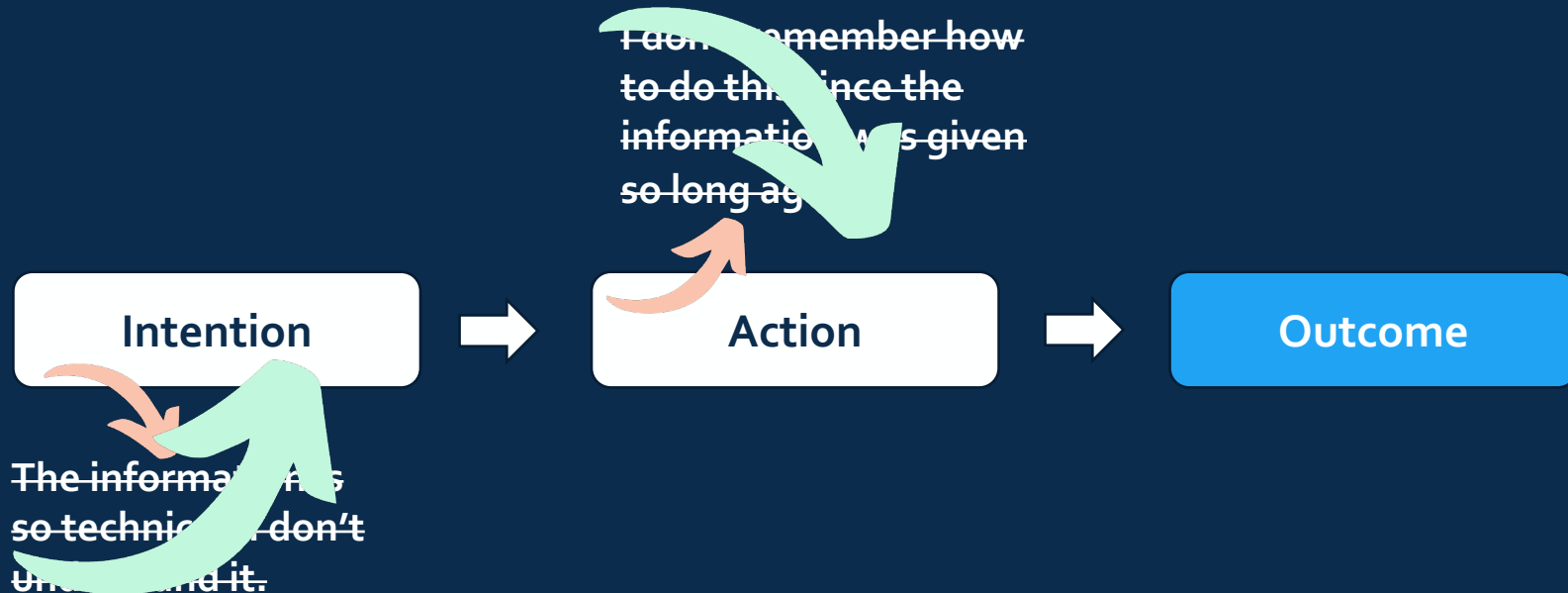
**Wait, what
happened to
providing
information?**

Behaviors Lead to Outcomes



Change your thinking about providing information...

Behaviors Lead to Outcomes



Change your thinking about providing information...
Provide it to help form an intention/decision or move to action

Behaviors Lead to Outcomes

Wearing repellent

Sleep under LLIN

Clearing breeding places

Wearing long sleeves



Reduce incidence of malaria

Behaviors Lead to Outcomes

Wearing repellent

Sleep under LLIN

Clearing breeding places

Wearing long sleeves



Reduce incidence of malaria

Positive behavior

The behavior should be **positive** or a “**goal**” behavior

~~Don't snack on junk food~~



Snack on healthy foods

~~Don't stop taking drugs
before finish full course~~



Finish full course of
medication

~~Don't overprescribe
antibiotics~~



Appropriately prescribe
antibiotics

Steps to the behavior

Start with your behavior and work backwards

What step proceeds the behavior?

- Is it an **action**?
- Is it a **decision** or **intention**?

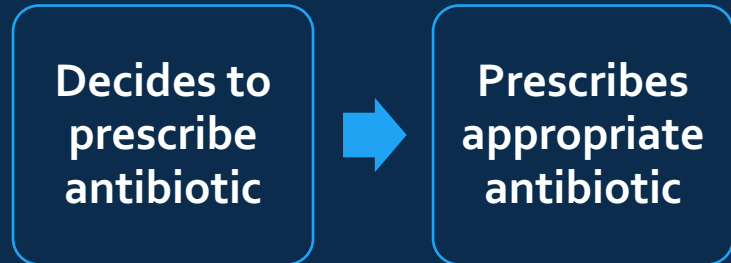
Have you ever decided to do something but did not follow through and didn't actually do it?

Intention-Action Gap

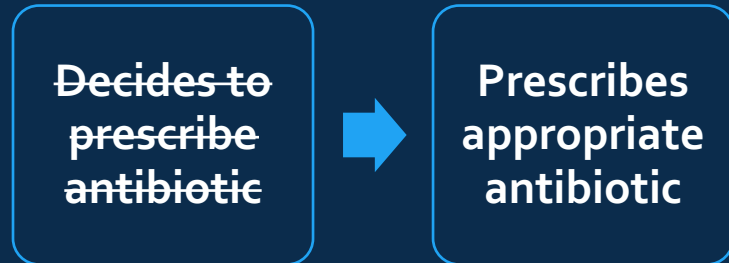
Steps to the behavior

**Prescribes
appropriate
antibiotic**

Steps to the behavior



Steps to the behavior



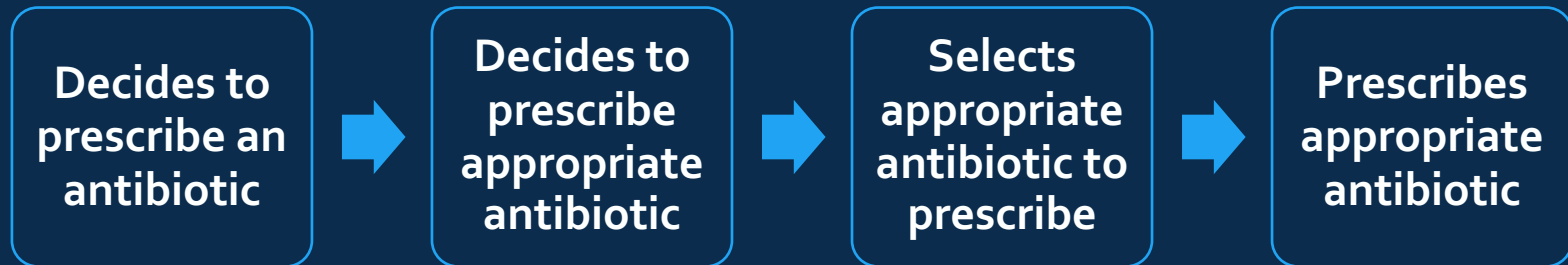
Steps to the behavior

Sometimes you have to adjust your first version

Thinking both forward and backward can help

There's no "right" number of steps

Steps to the behavior

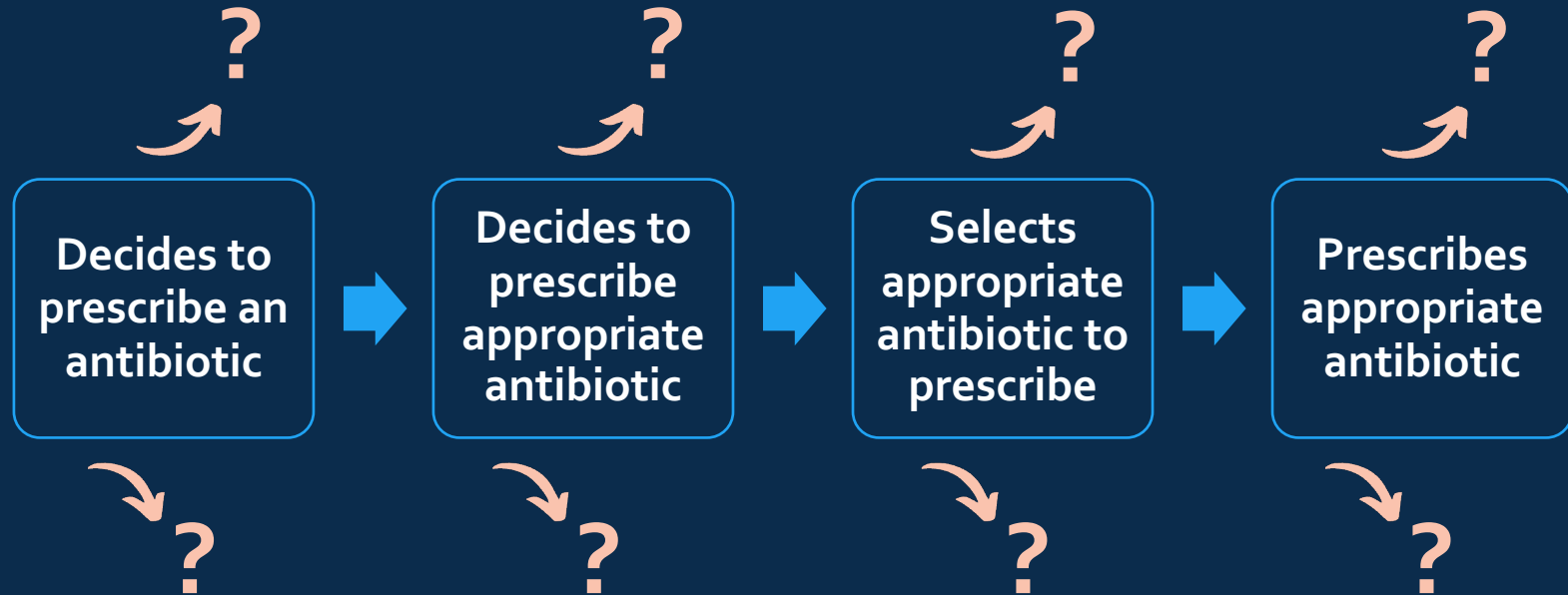


So now what?

Behavioral Design Process

- 1 Identify a specific behavior
- 2 Map out decisions and actions (in client's context) leading to that behavior
- 3 Expand behavioral diagnosis by identifying "quirks" and other barriers
- 4 Validate and prioritize barriers into key bottlenecks
- 5 Ideate and expand intervention ideas by applying nudges
- 6 Prototype, iterate, pilot, test, and evaluate

“Things” that get in the way



“Things” that get in the way

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|------------------------------------|---|--------------------------------|-----------------------------------|
| Barriers | | | | |

How are
behavioral and
cognitive quirks
influencing each
step?

Availability Bias



Availability bias explains why people **overestimate the likelihood of shark attacks**. If you can quickly or easily think of an example of a situation, then you tend to think it's more likely.

But since emotionally charged memories (those with fear, anger, or frustration) tend to come to mind easier than non-charged memories, we overestimate their likelihood. (And if it's harder to think of an example, we think those are less likely to happen.)

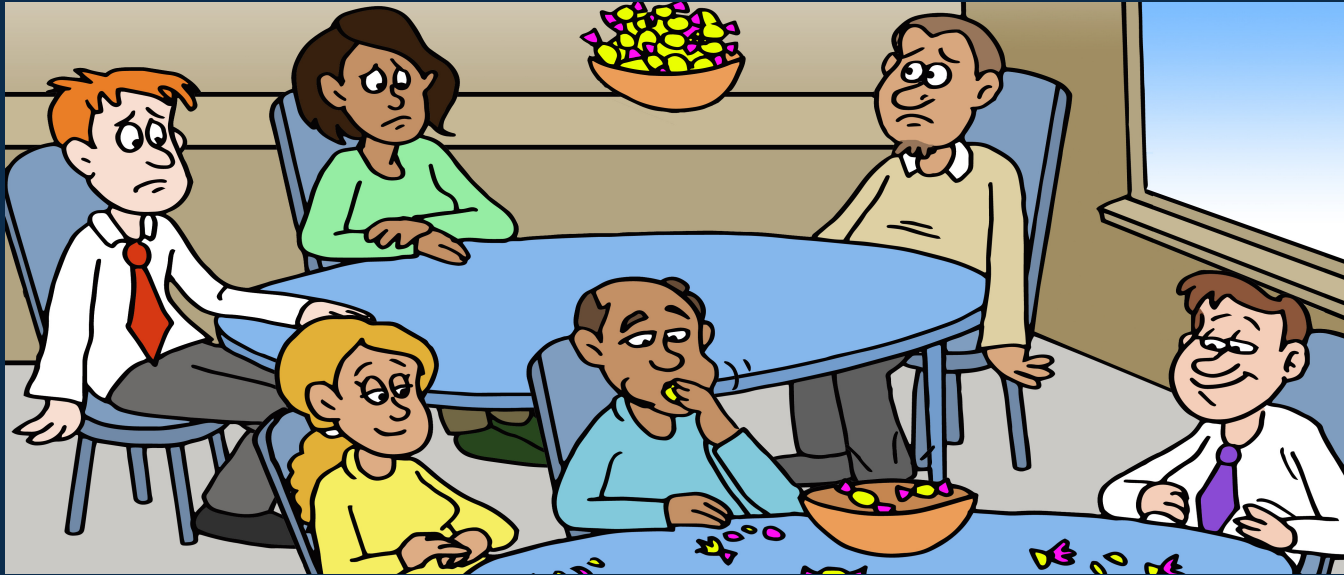
“Things” that get in the way

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|------------------------------------|--|--------------------------------|-----------------------------------|
| Barriers | | <ul style="list-style-type: none"> • Memory of argument with patient who demanded specific antibiotic easily comes to mind (<i>availability bias</i>) | | |

“Things” that get in the way

Expands your hypotheses about which barriers or factors are making it difficult or getting in the way of the person doing the behavior

Hassle Factors



Hassles — even small ones — can get in the way of starting or completing something.

Just *expecting* there will be hassles to do something can have the same effect as the hassles themselves. Expecting hassles may also cause someone to delay something to a later time when they think there will be fewer hassles.

“Things” that get in the way

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|------------------------------------|--|---|-----------------------------------|
| Barriers | | <ul style="list-style-type: none"> • Memory of argument with patient who demanded specific antibiotic easily comes to mind (<i>availability bias</i>) | <ul style="list-style-type: none"> • Prescribing guidelines aren't in the patient room (<i>hassle factor</i>) | |

**What about
barriers that aren't
quirks?**

“Things” that get in the way

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|------------------------------------|--|---|-----------------------------------|
| Barriers | | <ul style="list-style-type: none"> • Memory of argument with patient who demanded specific antibiotic easily comes to mind (<i>availability bias</i>) | <ul style="list-style-type: none"> • Prescribing guidelines aren't in the patient room (<i>hassle factor</i>) • Doctor knows pharmacies only have a few drugs so selects one he knows is available | |

**What if I'm not
completely sure if
a barrier is
happening?**

“Things” that get in the way

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|---|--|--|-----------------------------------|
| Barriers | <ul style="list-style-type: none"> • Doctor expects that patient won't take full course | <ul style="list-style-type: none"> • Memory of argument with patient who demanded specific antibiotic easily comes to mind (<i>availability bias</i>) | <ul style="list-style-type: none"> • Prescribing guidelines aren't in the patient room (<i>hassle factor</i>) • Doctor knows pharmacies only have a few drugs so selects one he knows is available | |

“Things” that get in the way

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|--|--|--|--|
| Barriers | <ul style="list-style-type: none"> • Doctor expects that patient won't take full course | <ul style="list-style-type: none"> • Memory of argument with patient who demanded specific antibiotic easily comes to mind (<i>availability bias</i>) • Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate (<i>status quo bias</i>) • Doctor is mentally tired from numerous decisions (<i>decision fatigue</i>) | <ul style="list-style-type: none"> • Prescribing guidelines aren't in the patient room (<i>hassle factor</i>) • Doctor knows pharmacies only have a few drugs so selects one he knows is available | <ul style="list-style-type: none"> • Doctor is too busy to argue with patient who wants different antibiotic (<i>ego depletion</i>) • Doctor unsure of how to convince patient who wants different antibiotic and keep patient happy • Doctor is concerned with reputation and livelihood (profit) so prescribes what patient wants |

Your turn!

Think like the wonderfully imperfect humans
that we all are

Your turn!

1. Review your case study and provided steps.
2. If you want to adjust your context to one where you've worked, feel free to do so.
3. Consider barriers to each step – what makes it hard for an individual to do that step? Write them in simple language.
4. Use the understanding flashcards to help give you ideas, but include all reasons you can think of.

Questions to Consider:

- **Where** is the person?
- Are they deciding or acting **alone**? Who is influencing them?
- How do they **feel** doing the step?
- Is there a **time or space gap**: decision/action or receiving/using information?
- Do they have **easy access** to everything that they need at that moment?
- Is there a (mental or physical) **shortcut** they can take or an easy alternative?
- What **else is happening** at that moment?
- Is there **pressure, monitoring, or an incentive** to do the step?

We'll move on at 5:20

Behavioral Design Process

- 1 Identify a specific behavior
- 2 Map out decisions and actions (in client's context) leading to that behavior
- 3 Expand behavioral diagnosis by identifying "quirks" and other barriers
- 4 **Validate and prioritize barriers into key bottlenecks**
- 5 Ideate and expand intervention ideas by applying nudges
- 6 Prototype, iterate, pilot, test, and evaluate

Now you have a list of hypotheses

| Step | Decides to prescribe an antibiotic | Decides to prescribe appropriate antibiotic | Selects appropriate antibiotic | Prescribes appropriate antibiotic |
|----------|--|--|--|--|
| Barriers | <ul style="list-style-type: none"> • Doctor expects that patient won't take full course | <ul style="list-style-type: none"> • Memory of argument with patient who demanded specific antibiotic easily comes to mind (<i>availability bias</i>) • Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate (<i>status quo bias</i>) • Doctor is mentally tired from numerous decisions (<i>decision fatigue</i>) | <ul style="list-style-type: none"> • Prescribing guidelines aren't in the patient room (<i>hassle factor</i>) • Doctor knows pharmacies only have a few drugs so selects one he knows is available | <ul style="list-style-type: none"> • Doctor is too busy to argue with patient who wants different antibiotic (<i>ego depletion</i>) • Doctor unsure of how to convince patient who wants different antibiotic and keep patient happy • Doctor is concerned with reputation and livelihood (profit) so prescribes what patient wants |

Validating and Prioritizing your Hypotheses

Data

What have other studies found?

Use as a guide but remember (1) your context may be different and (2) studies might not have investigated *quirks*

What data do you have or can obtain?

Consider both qualitative and quantitative

Where are people falling off with doing the behavior?

Prioritize your barriers

Feasibility vs impact

4: Amplifying Intervention Design

Process

- 1 Identify a specific behavior
- 2 Map out decisions and actions (in context) leading to behavior
- 3 Expand behavioral diagnosis by identifying “quirks” and structural barriers
- 4 Prioritize quirks and barriers into key bottlenecks
- 5 Use behavioral design to create high potential concepts that address barriers
- 6 Iterate, pilot, test, and evaluate

Now we have a barrier to address

| Barrier | Intervention Idea(s) |
|---|----------------------|
| Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate | |



Designing to address prioritized barrier

Ideally you should **first ideate** on ways to address the barrier(s)...

THEN apply nudges to refine those ideas and make them stronger

Your entire intervention shouldn't be a nudge

Ideating Intervention Ideas

Human-Centered Design

HCD is a human-centered creative problem solving process that emphasizes perspective-taking, interactive prototyping, and testing

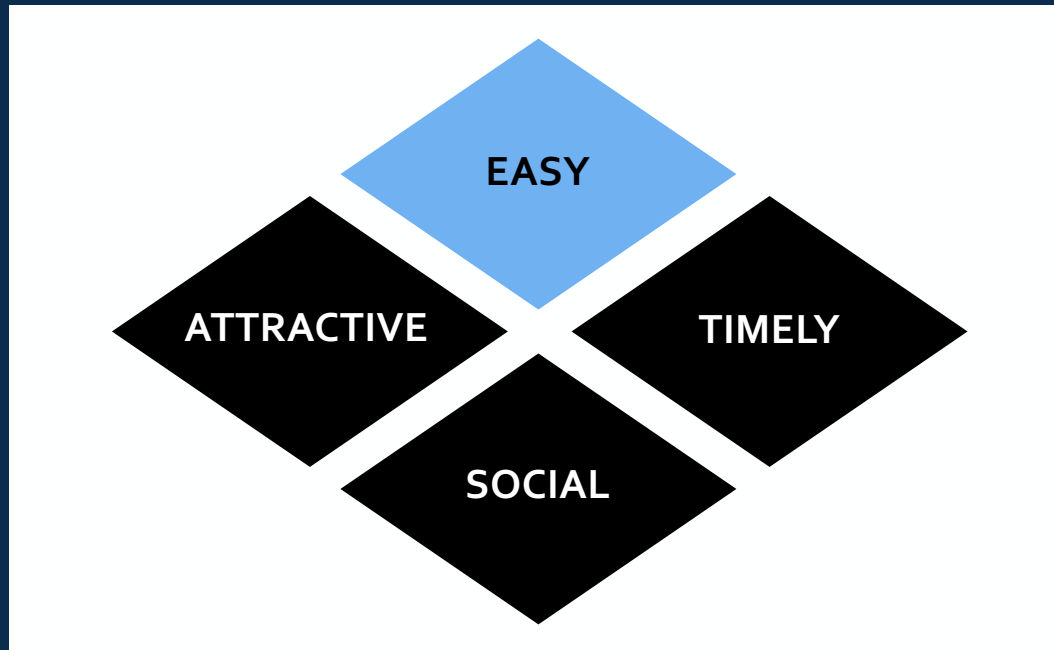
It has numerous activities to help you ideate once you have identified a key barrier to address

EAST Framework

EAST Framework is a way to easily think about how to apply a range of categorized nudges

It highlights basic good design principles

EAST Framework



Developed by the Behavioural Insights Team ("UK Nudge Unit")

EAST Framework

EASY

How can you make something easier for someone to do?

(Or make it harder for them to do the opposite?)

ATTRACTIVE

How can you make your intervention more noticeable?

How can you make sure it targets core motivations?

How can you make it fun?

SOCIAL

How can you involve networks or make the action public?

How can you let people know what others are doing?

TIMELY

How can you make sure the timing is appropriate?

How can you help them plan?



EASY

ATTRACTIVE

SOCIAL

TIMELY

Harness the power of defaults

Reduce the "hassle factors" of taking up a service or maintaining a behavior

Simplify messages and options



EASY
ATTRACTIVE
SOCIAL
TIMELY

Frame messaging to address people's lives and motivations

Design rewards (non-monetary or monetary) and sanctions for maximum effect

Make it fun!

SOCIAL

EASY
ATTRACTIVE
SOCIAL
TIMELY

**Show that most people perform
or support the desired behavior**

Use the power of networks

**Encourage people to make a
commitment visible or public**

TIMELY

EASY
ATTRACTIVE
SOCIAL
TIMELY

Prompt people when they are likely to be most receptive

Consider the immediate costs and benefits

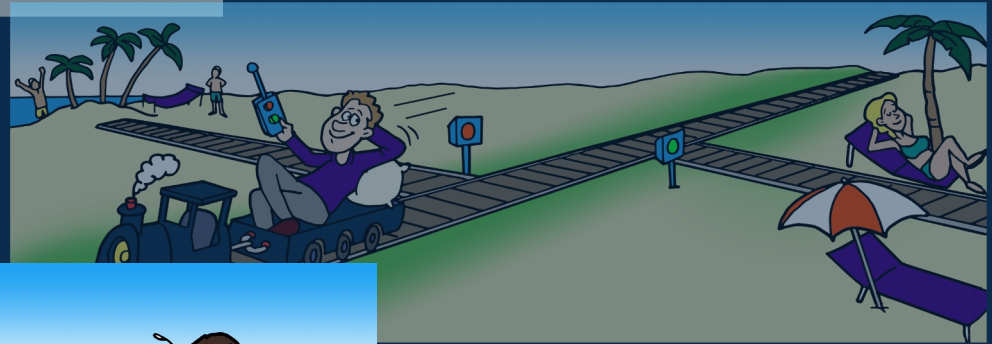
Help people plan their response to events

Since we don't
have time to
ideate and then
apply nudges, let's
jump to nudges

Social Proof



Defaults



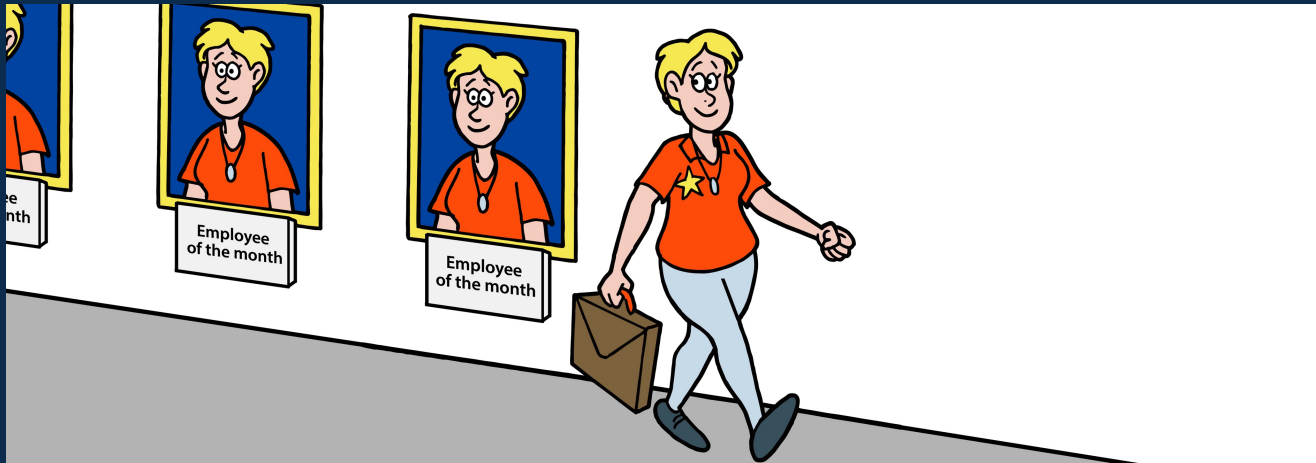
Simplification



Nudge ideas

| Barrier | Intervention Idea(s) |
|---|----------------------|
| Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate | |

Rewards and Recognition



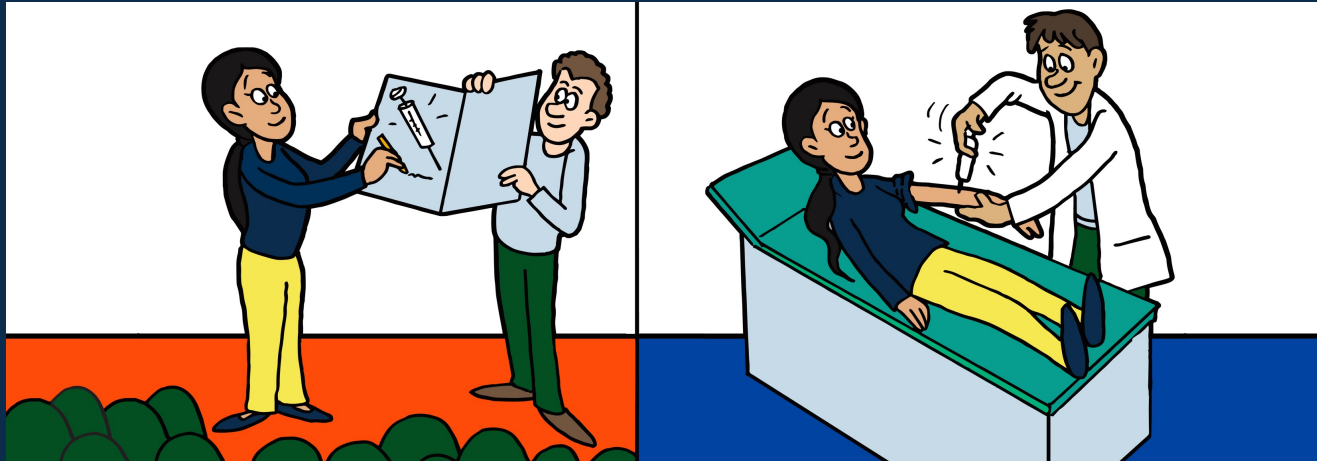
Sometimes **small rewards or recognition** can have **oversized effects** on our behavior. (Everyone loves getting a gold star!)

Small rewards or recognition can help overcome or balance out the annoyances, hassles, or discomforts of doing something.

Nudge ideas

| Barrier | Intervention Idea(s) |
|---|---|
| Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate | <ul style="list-style-type: none">• Set-up "doctor of the month" for the doctor whose prescriptions most align with clinical guidelines |

Commitment Devices

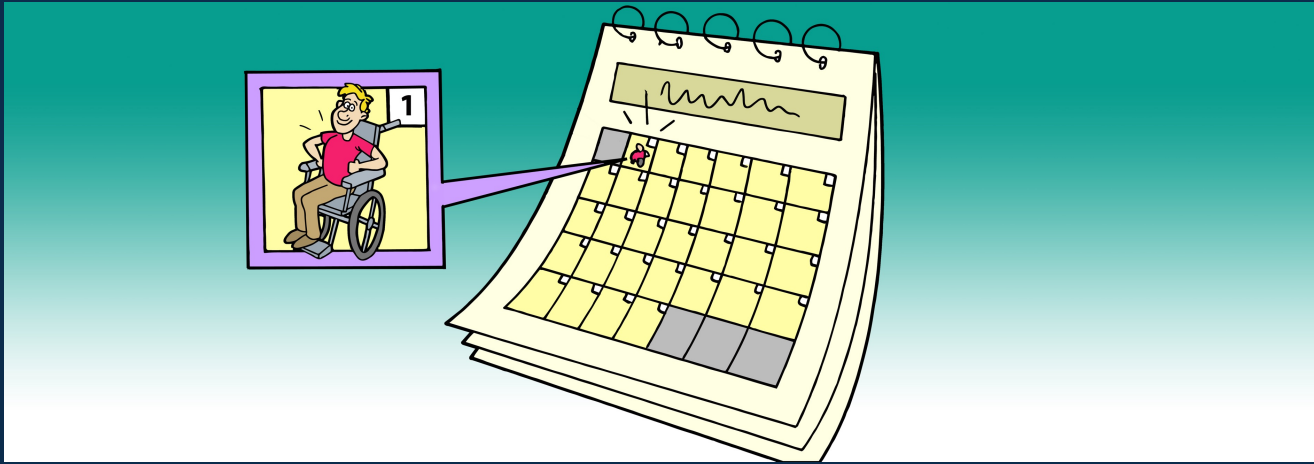


Commitment devices are tools that **try to lock future behavior**, a way for a motivated 'present self' to influence the behavior of a 'future self' that may not be as eager to do the behavior.

Nudge ideas

| Barrier | Intervention Idea(s) |
|---|---|
| Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate | <ul style="list-style-type: none">• Set-up "doctor of the month" for the doctor whose prescriptions most align with clinical guidelines |
| | <ul style="list-style-type: none">• Have doctor sign a public pledge and post it on their office wall that they will consider range of antibiotics and select appropriate antibiotic to prescribe |

Fresh Start Effect



An important date or special occasion allows humans to mentally reset or 'break' with past versions of themselves.

The **"new you"** can engage in healthier behaviors and any bad habits were left with the "old you". These **fresh start dates** are called 'temporal landmarks'.

Choice Architecture



How options are presented strongly influences which option is chosen. **Choice architecture** intentionally organizes and structures options – either in a physical space or online – so that individuals are steered towards a specific option.

**Nudges seem
great, I can easily
design one!**

Comprehensive Project Design

Barrier

Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate

Expects patients to demand specific antibiotic

Doctor doesn't know how to simply explain anti-microbial resistance with patients

Intervention

"Doctor of the month" for the doctor whose prescriptions most align with clinical guidelines

Have doctor sign posted pledge that they will consider range of antibiotics and select appropriate one

Provide script for doctor to read or short video to show patient when patient demands antibiotics

**Should nudges
only be applied to
the person doing
the key behavior?**

Comprehensive Project Design

Barrier

Doctor's prescribed same antibiotic for years and doesn't consider which one is appropriate

Expects patients to demand specific antibiotic

Doctor doesn't know how to simply explain anti-microbial resistance with patients

Patient thinks getting antibiotics is normal and that everyone demands them

Intervention

"Doctor of the month" for the doctor whose prescriptions most align with clinical guidelines

Have doctor sign posted pledge that they will consider range of antibiotics and select appropriate one

Provide script for doctor to read or short video to show patient when patient demands antibiotics

While waiting for doctor, require patient to watch video and sign pledge they won't demand antibiotics

Picture wall of "antibiotic champions" - patients who signed pledge and did not demand antibiotics

Your turn!

1. Pick one of your barriers and start considering the nudges in the flashcards
2. Write out your intervention ideas in simple language – don't worry about getting too detailed, you can always add details later
3. Pick a few other barriers and repeat the process

We'll move on at 5:50

5: Discussion and Closing

How can you
incorporate these
activities into your
program's
methodology?

**How hard will this
be to teach SBC
and non-SBC
practitioners?**

Additional Resources

EAST Framework

<https://www.bi.team/publications/east-four-simple-ways-to-apply-behavioural-insights/>

Indlela NUDGE Handbook

<https://indlela.org/nudge-handbook/>

OECD BASIC Toolkit

<https://www.oecd.org/gov/regulatory-policy/tools-and-ethics-for-applied-behavioural-insights-the-basic-toolkit-9ea76a8f-en.htm>

Center for Advanced Hindsight

<https://advanced-hindsight.com/resources/>

Common Behavioral Economics Terms

<https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/>

Review

Human nature is gloriously imperfect

BE can be incorporated into the overall SBC design process

Look deeper: Never assume someone isn't doing a behavior because they "don't understand the benefits"

Nudges should be thought of as part of wider program design

Asante!

ကျေးဇူးတင်ပါသည်

Gracias!

Thank you!

Salamat!

Any questions or thoughts?

Merci!

شكراً لك

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Behavioral Design Process

- 1 Identify a specific behavior
- 2 Map out decisions and actions (in client's context) leading to that behavior
- 3 Expand behavioral diagnosis by identifying "quirks" and other barriers factors*
- 4 Validate and prioritize barriers into key bottlenecks
- 5 Ideate and expand intervention ideas by applying nudges
- 6 Prototype, iterate, pilot, test, and evaluate

*Ideally you identify *all factors* – both barriers and drivers/motivators
To get you started today, we'll just cover barriers