



# Experimentation and behavioural change: How to develop social experimentation

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**David Halpern, President of BIT**  
Rencontres de Santé publique France - Juin 2024

# CONFLICT OF INTEREST DECLARATION

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This intervention is made independently from the organiser of this meeting.

I do not have conflicts of interests with the topic of this session.

BIT is a current supplier on Santé Publique France's "études" framework agreement (lot 4 "sciences comportementales").



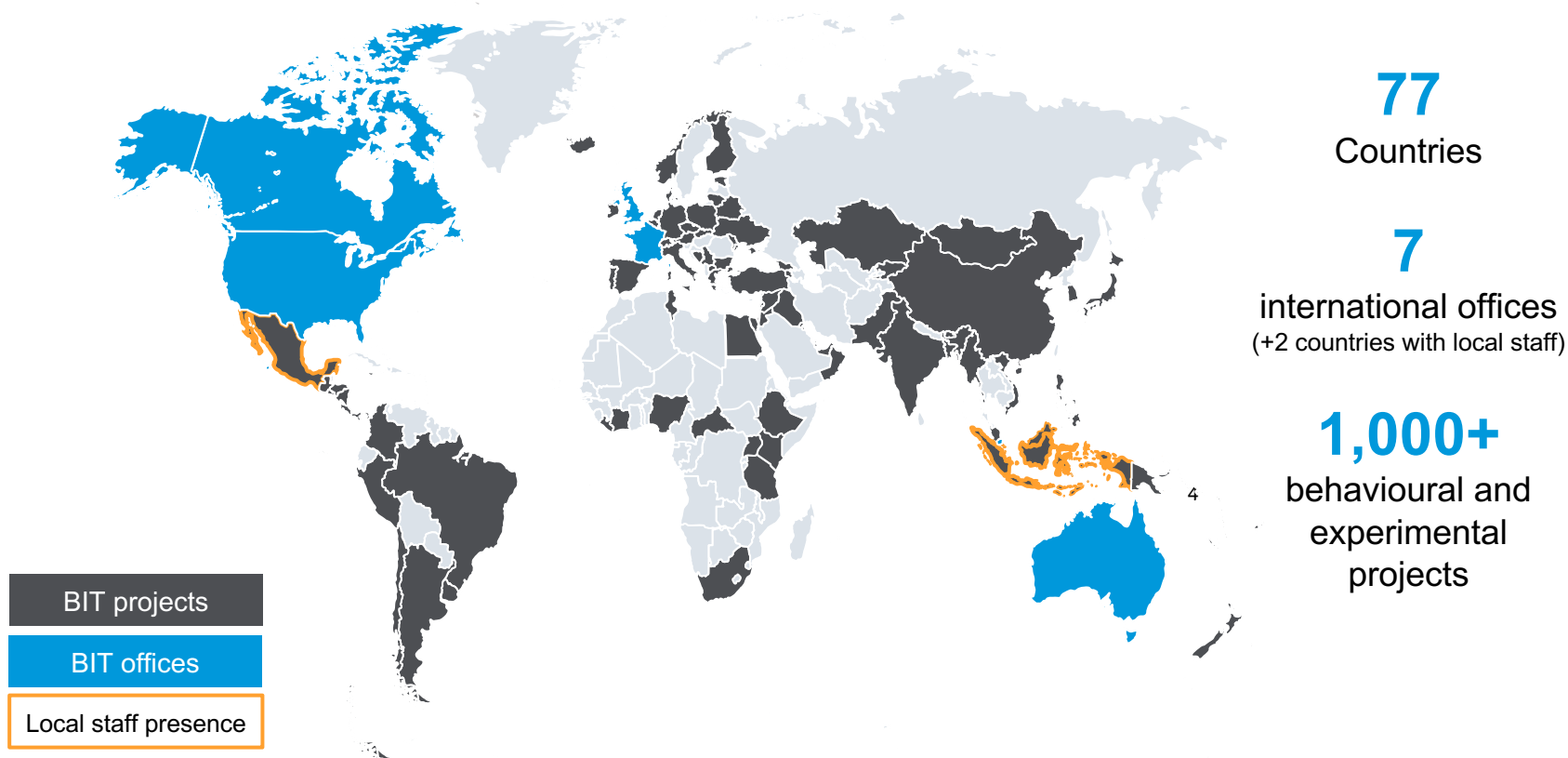


***“Our government will find intelligent ways to encourage, support and enable people to make better choices for themselves.”***



***...with a little help from our friends***

## ...across the world



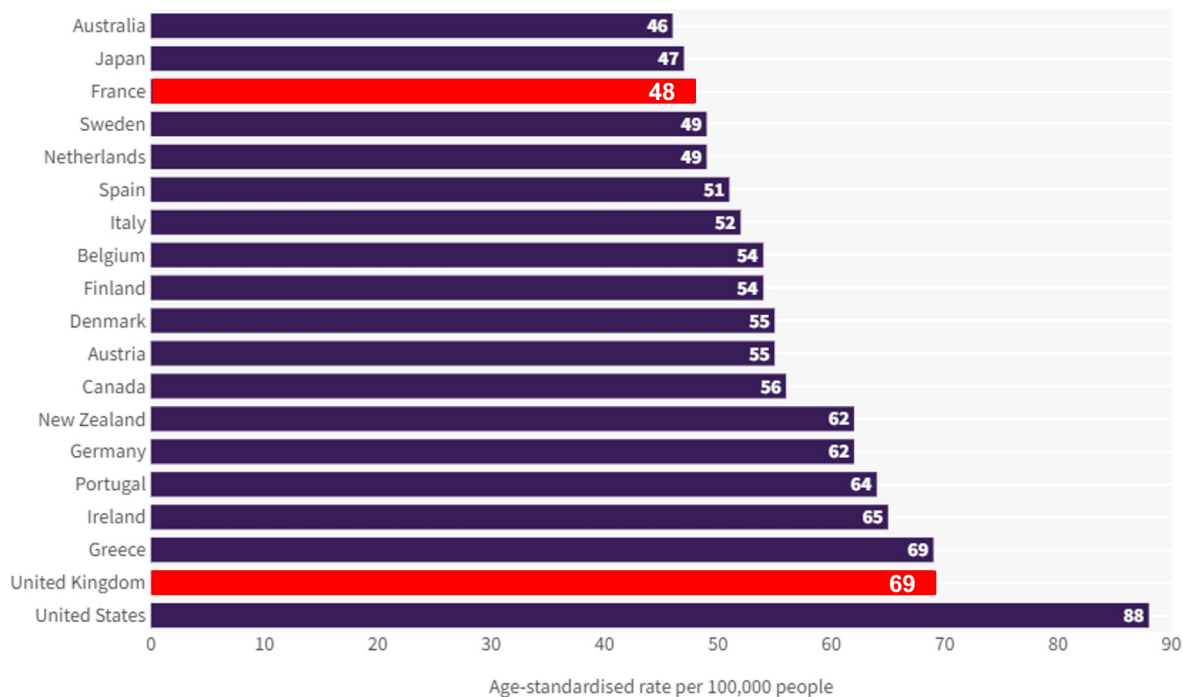


**How do France and the UK compare?**

# Patient outcomes are better, on average, in France than the UK

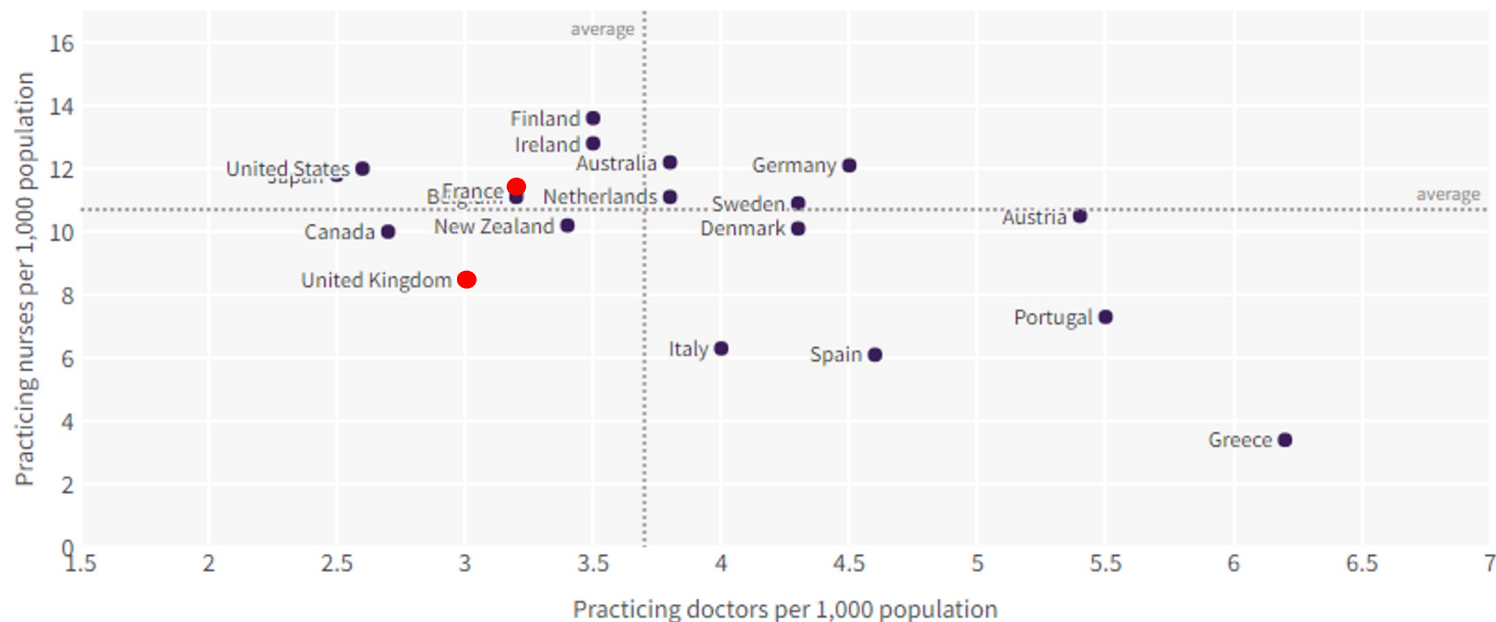
Mortality rates from avoidable causes, 2019

## Treatable



Source: [King's Fund](#)

# France has more doctors and nurses per head than the UK (2019)



Source: [King's Fund](#)



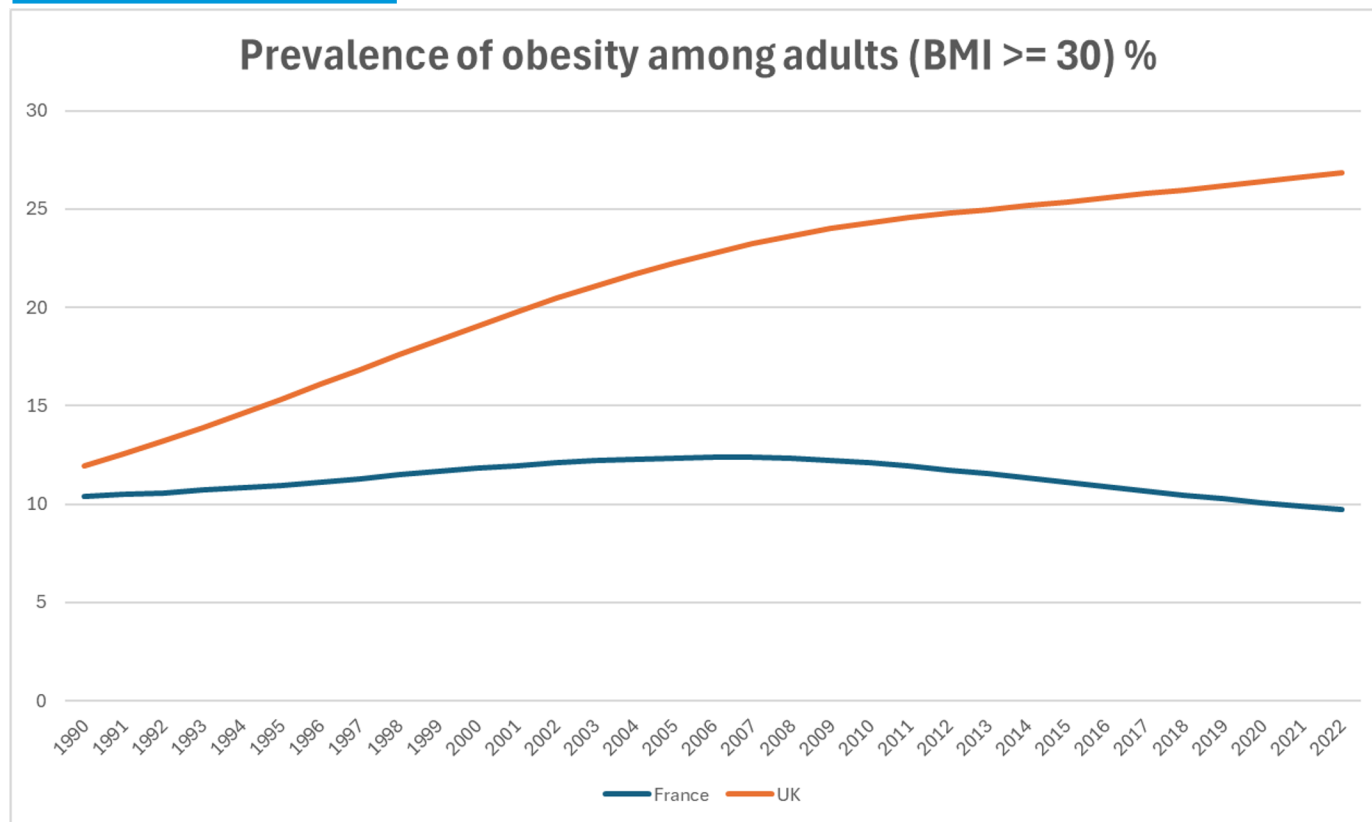
# Most years of life are lost through lifestyle and behavioural factors: 10 more years of life by changing behaviours?

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Risk	Estimated years of lost HLE across UK population
Diet (inc indirect effects)	2 – 4
Stress, purpose & relationships	0.5 – 2.5
Smoking	1 – 2
Alcohol	0.5 – 1
Physical inactivity	0.25 – 0.5
Air pollution	0.25 – 0.5
<b><i>Total</i></b>	<b><i>4.5 – 10.5</i></b>

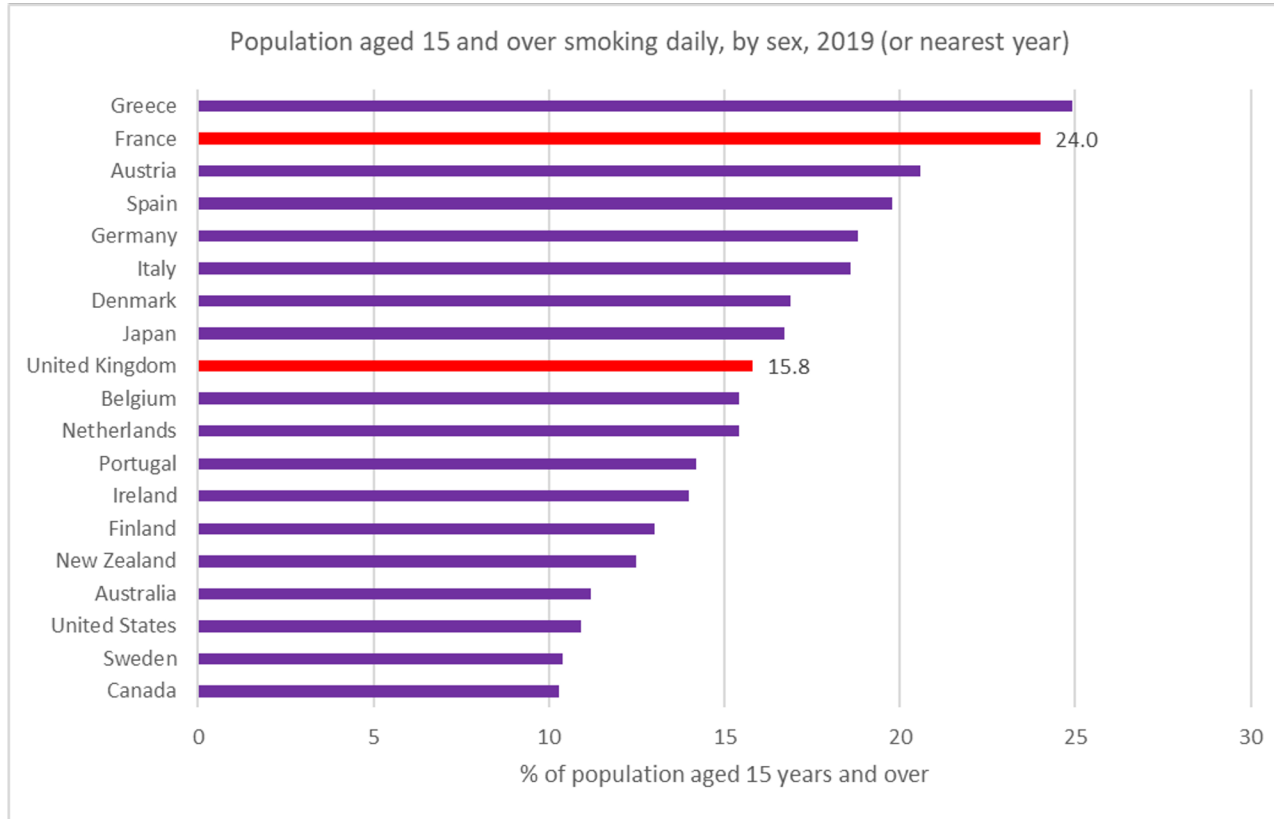
Rough estimates for HLE achievable from addressing the primary known behavioural and environmental causes (Source: UK data, Behavioural Insights Team estimates). Published by the APPG for Longevity in 'The Health of the Nation. A Strategy for Healthier Longer Lives', February 2020, <https://appg-longevity.org/health-of-the-nation>

# France has a far lower (and falling) prevalence of obesity than the UK



Source: [WHO](#)

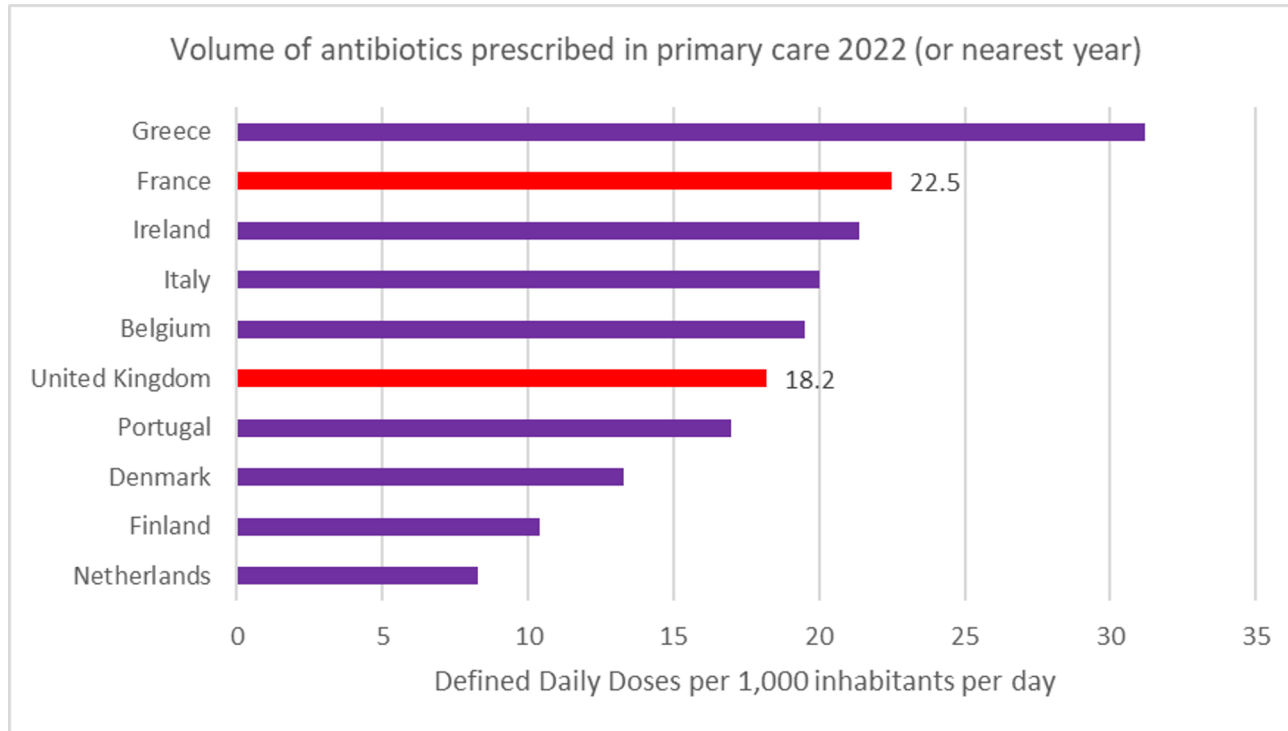
## Other areas, France does worse, eg smoking



Source: [OECD](#)



## ...or over-prescription of antibiotics (leading to AMR)



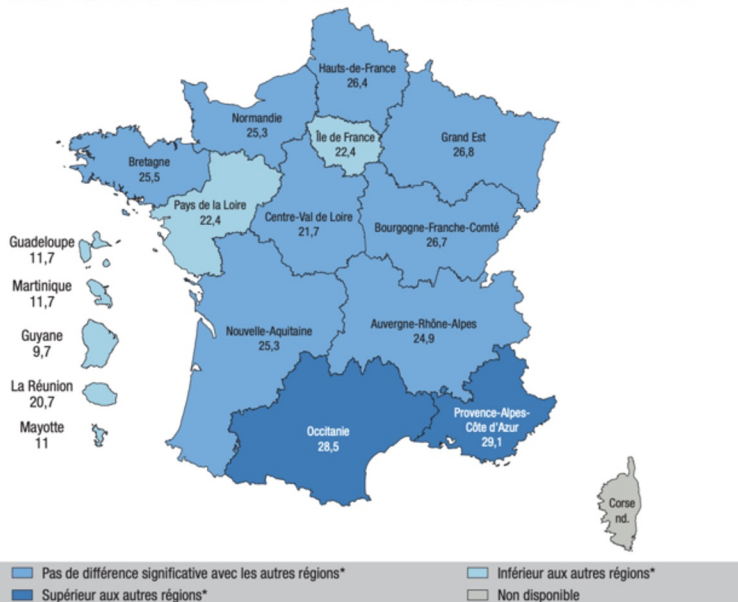
Source: [Nuffield Trust](#), 2024

# Within country differences are often more striking than between country

## Smoking

Figure 4

Prévalence du tabagisme quotidien par région parmi les 18-75 ans en France métropolitaine et dans les DROM en 2021

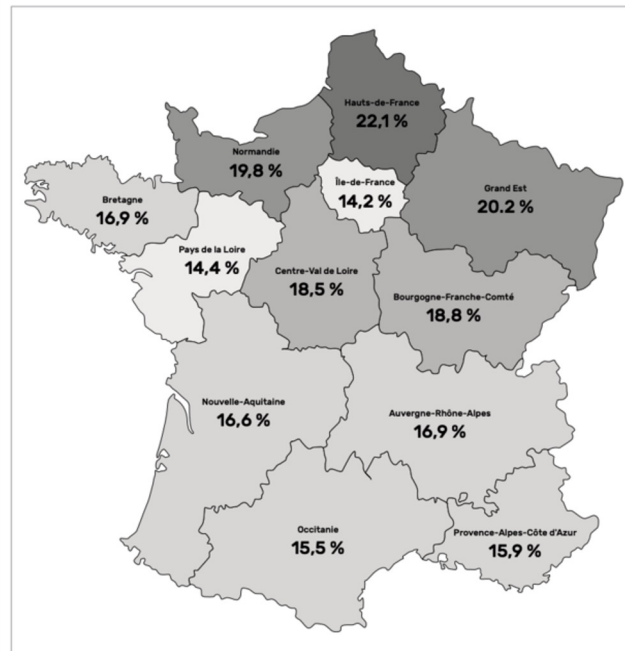


\* Différence significative au seuil de 5% pour la comparaison de chaque région au reste de la France métropolitaine. Pour cette comparaison, les taux sont standardisés sur la structure croisée par âge et sexe de la France métropolitaine.

\*\* Pour Mayotte, la prévalence porte sur la tranche d'âge 18-69 ans en 2018-2019.

DROM : départements et régions d'outre-mer.

## Obesity



**Figure 3 - Répartition géographique des prévalences de l'obésité en 2020 dans les régions françaises.**

## **Upstream / downstream model**



# Behaviour change at three levels

## Upstream

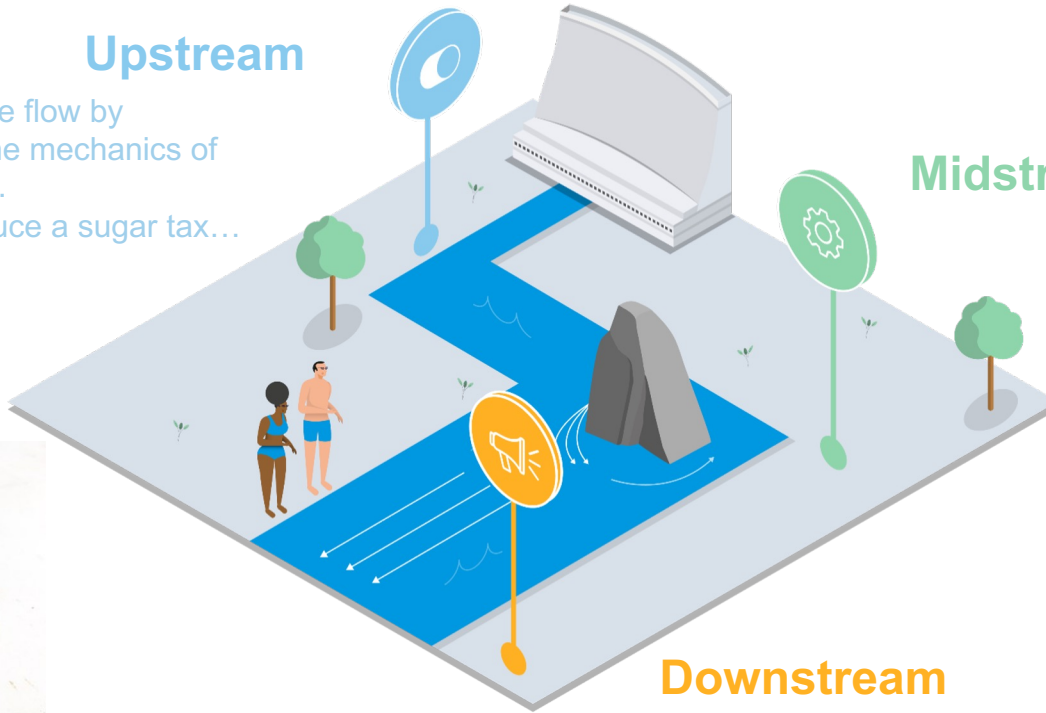
Redirect the flow by targeting the mechanics of the system.  
E.g. Introduce a sugar tax...

## Midstream

Create an enabling environment by targeting the environment in which decisions are made.  
E.g. moving donuts to hard-to-reach spots on the shelves

## Downstream

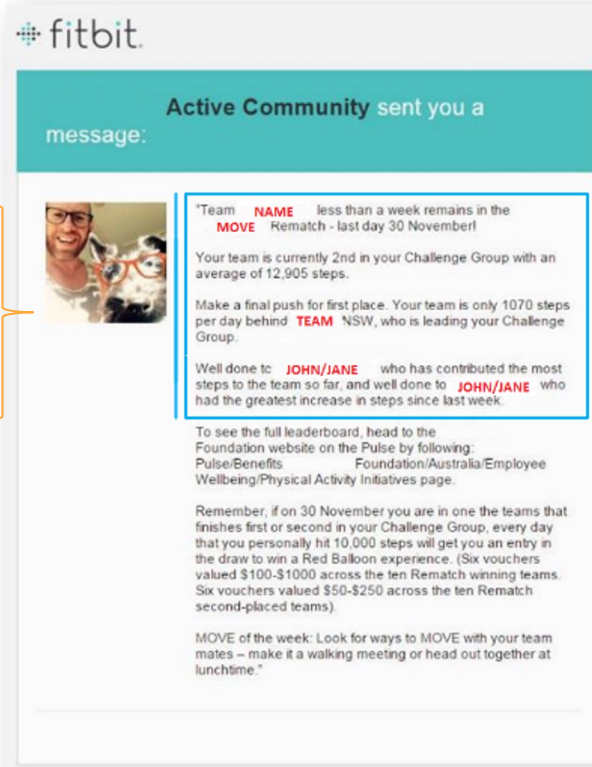
Encouraging citizens to take direct action. E.g.  
“Eat less donuts!”



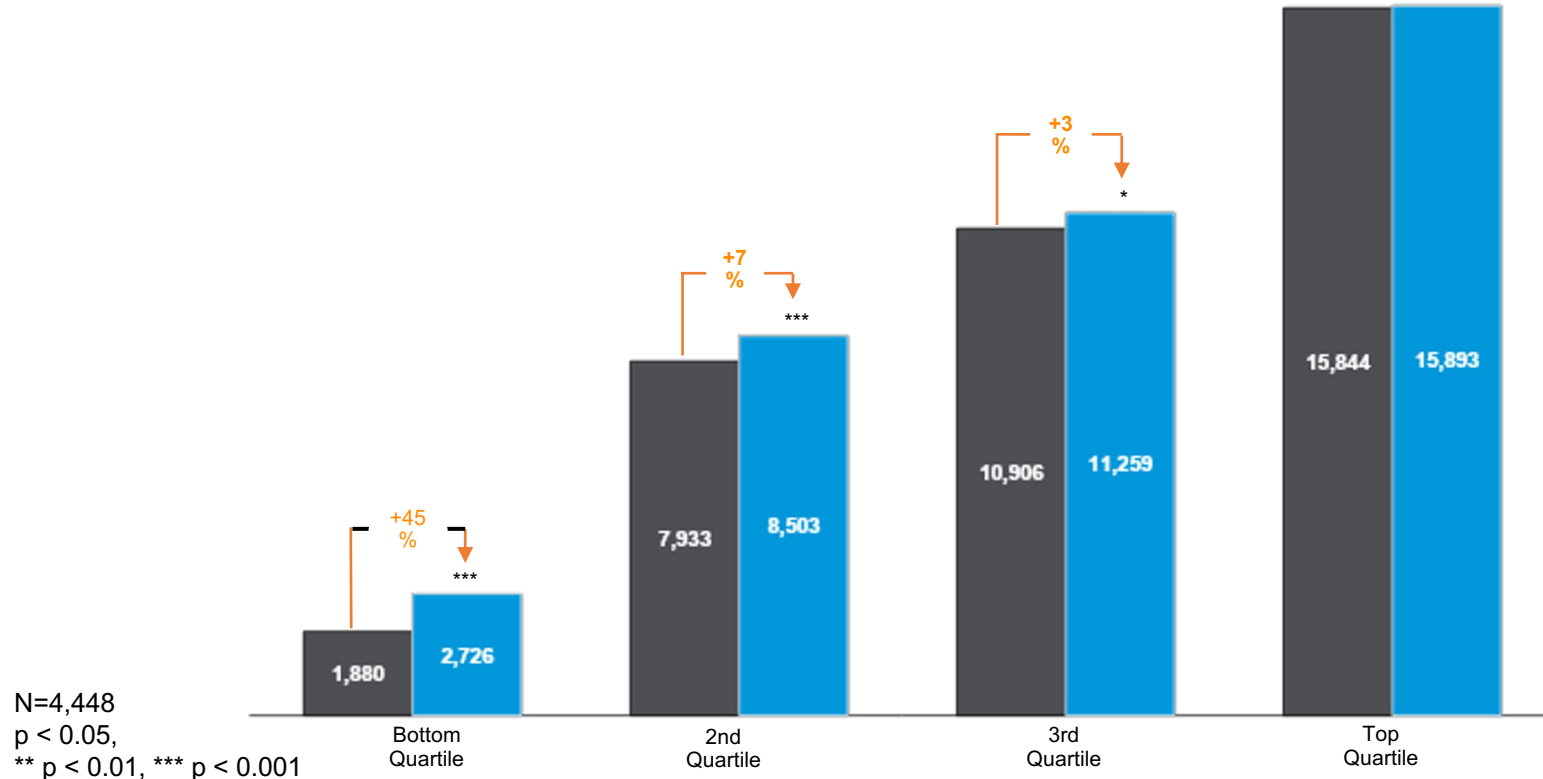
# Downstream: social gamification to increase people's physical activity



Team name.  
Rank and steps.  
Distance from first, and  
last competitor.  
Two top performing  
individuals.



## Downstream: social gamification had the greatest effect on the least active



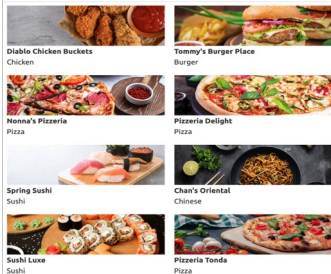


# Midstream: changing the choice environment on online delivery platforms



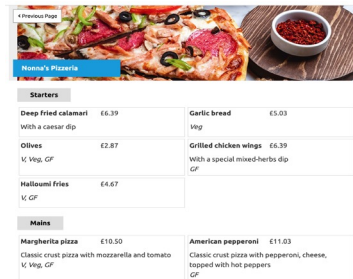
## Restaurant selection page

The first page displays all the restaurants available, with their name, a picture, and information on the type of cuisine offered. A filter is also available on the right hand side of the page to allow people to filter according to restaurant category (e.g. pizza, sushi, burger)



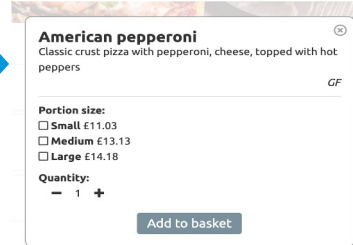
## Food menu page

The food menu page displays the starters, mains, desserts, and drinks available from the selected restaurant. On average food menus on Take a BiTe, include 25 food items to choose from. Selecting a food item opens a portion size pop-up window.



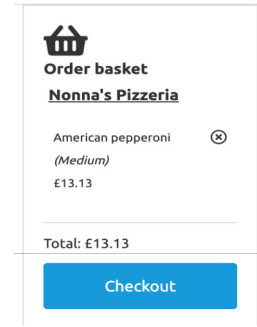
## Portion size pop-up

The portion size pop-up allows users to select the portion and the number of items to be added to the basket. Each item is available in a small, medium, or large portion.

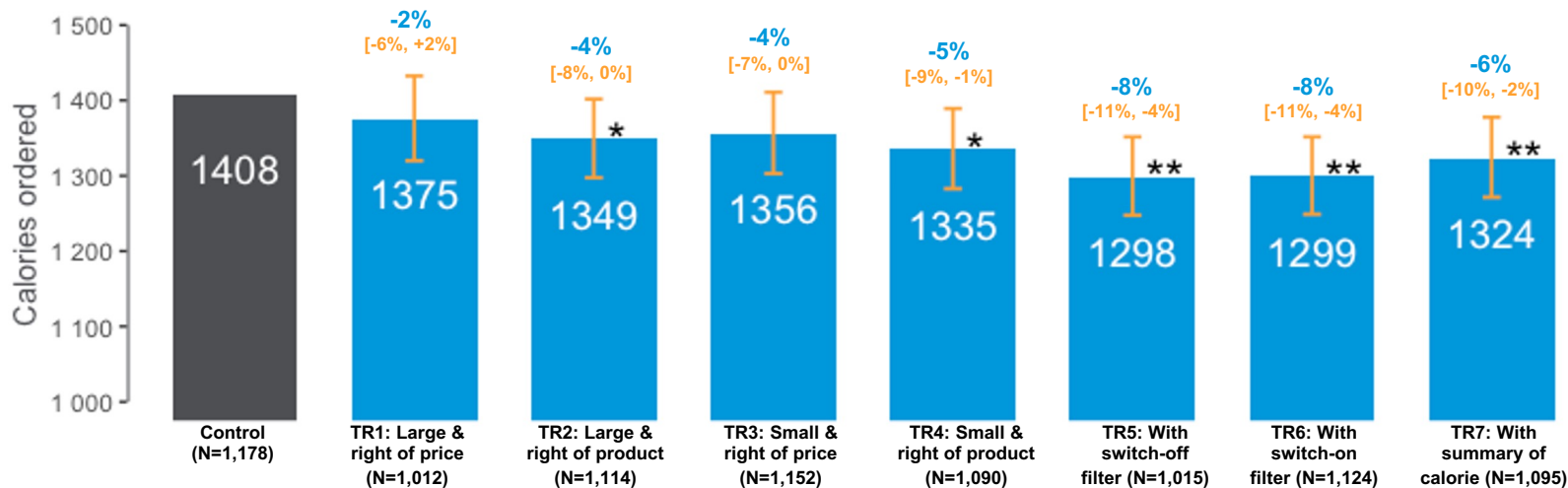


## Check-out

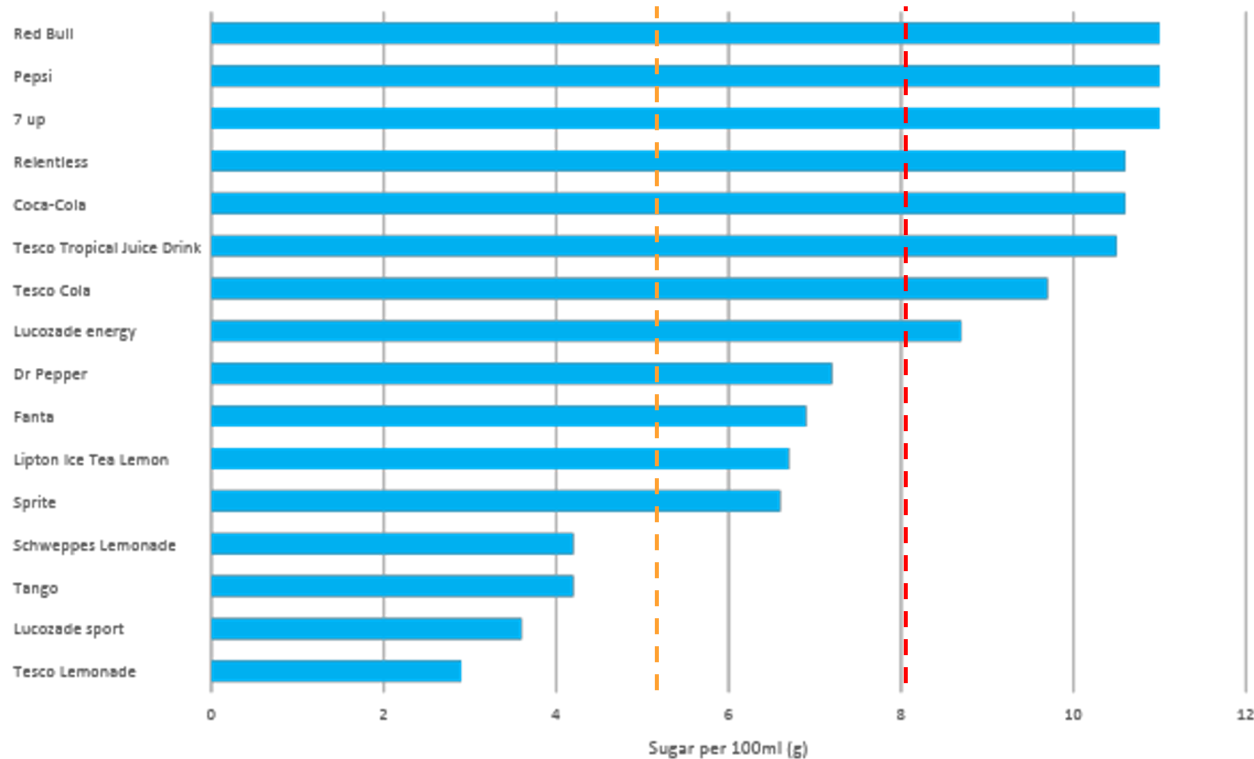
A 'check-out' section shows all the foods added to the basket, their portion sizes, their prices, and the price of the total basket. Once happy with their order, participants can 'check out'.



## Midstream: effective interventions resulted in 59-110 fewer kcal/order.



## Upstream: Sugar tax: a 'double nudge'



## Upstream: Reformulation meant that the default changed for consumers



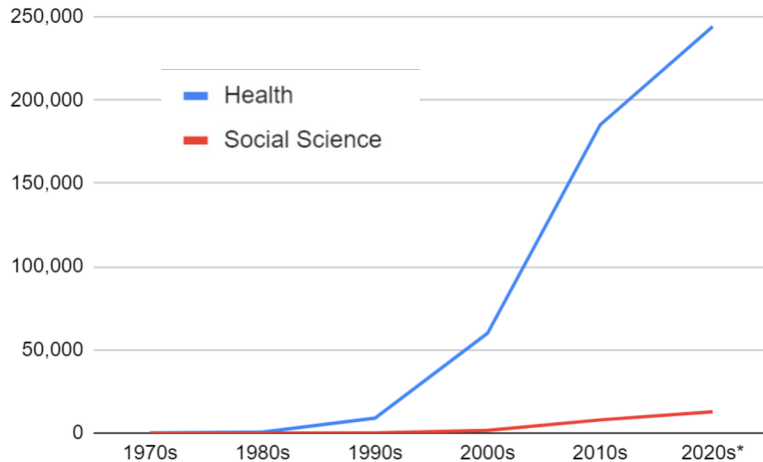
**44% reduction in sugar content...  
even as sales rose by 15%**



# Experimentation

# Health is far ahead of social sciences when it comes to experimentation and evaluation...

Number of RCTs in Health vs Social Science (produced by the Campbell Collaboration)



# Rapid experimentation: Simplifying COVID-19 messages



HM Government



## Coronavirus Action Plan Public Information

The Government and NHS are well prepared to deal with Coronavirus

**Protect yourself and others:  
wash your hands for 20 seconds  
each time.**

Everyone can help. Wash your hands more often, especially when you:

- Touch other people
- Get home or into work
- Blow your nose, sneeze or cough
- Eat or handle food

Remember to use soap and water, or use hand sanitiser gel.



**27.02.2020**

**CORONAVIRUS  
PROTECT  
YOURSELF  
& OTHERS**

For more information go to [nhs.uk/coronavirus](https://nhs.uk/coronavirus)



HM Government



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**28.02.2020**

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## Coronavirus

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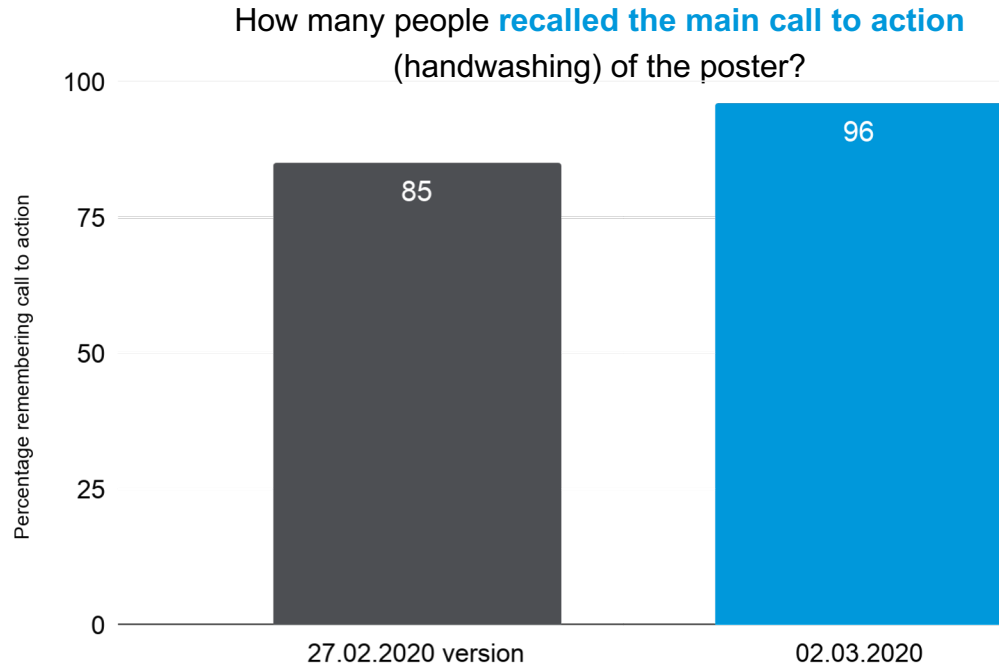


**02.03.2020**

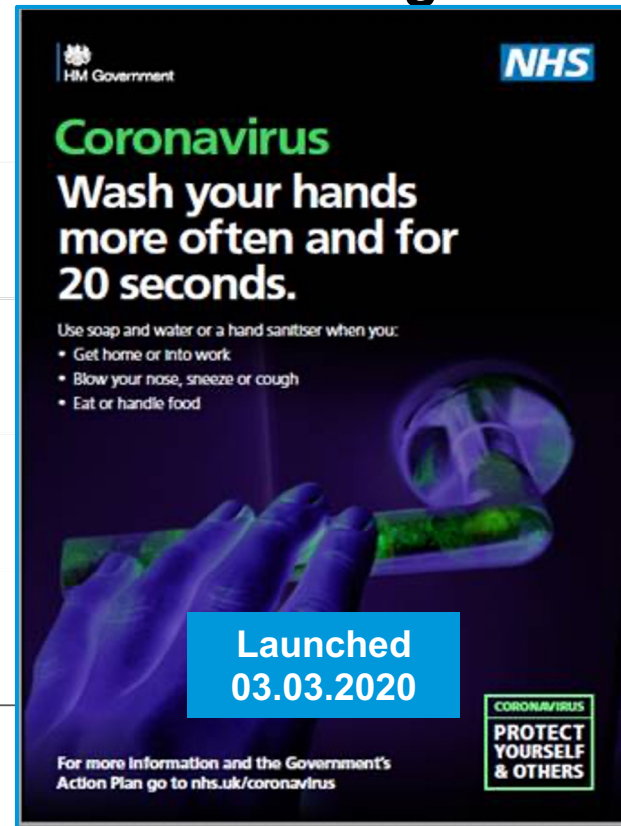
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For more information go to [nhs.uk/coronavirus](https://nhs.uk/coronavirus)

# Rapid experimentation: Simplifying COVID-19 messages

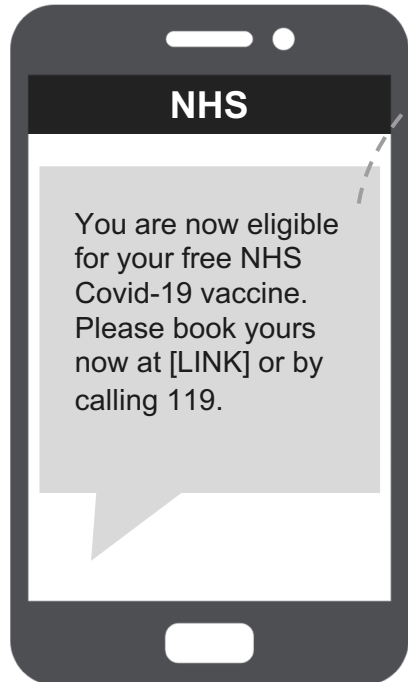


Sample size: 6,188.



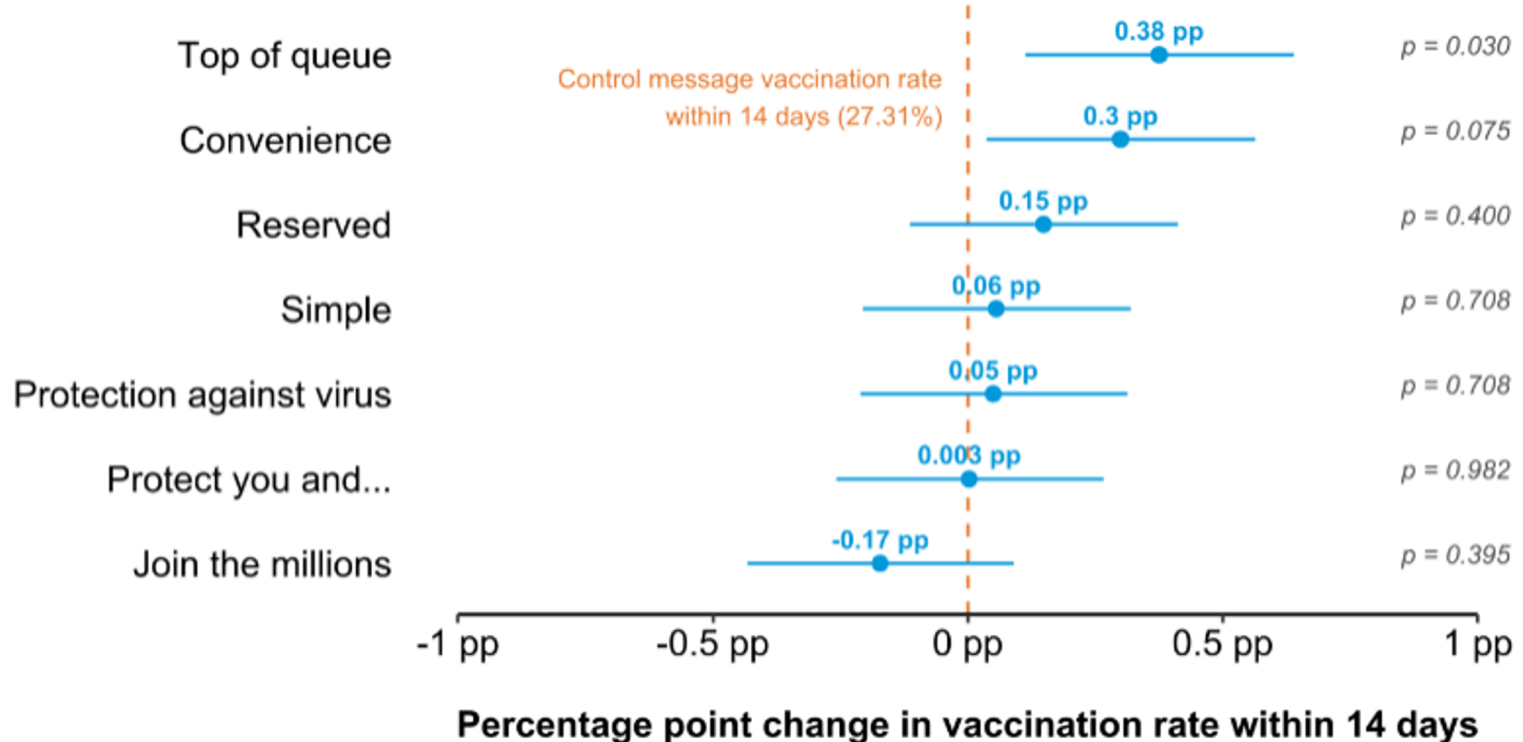
# Fast, large scale experimentation built into our systems

## Message 1: Control

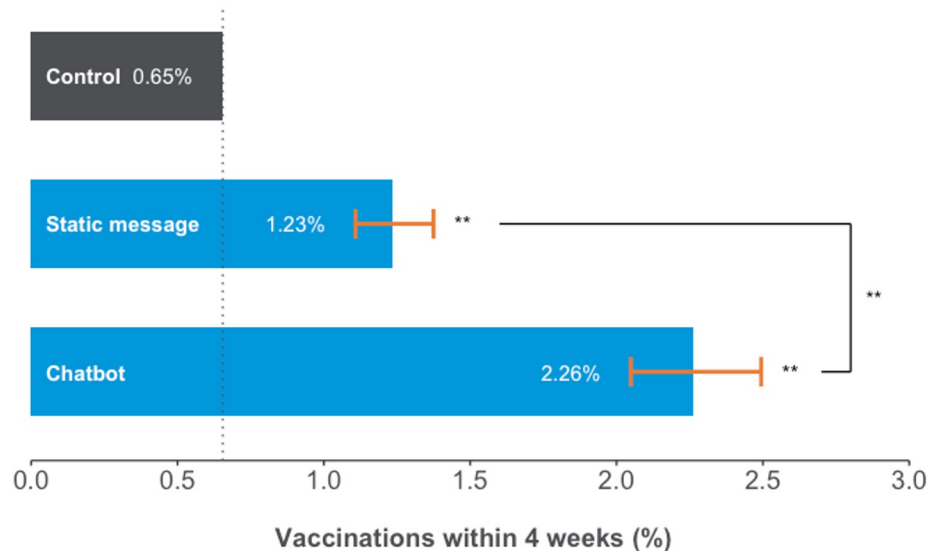
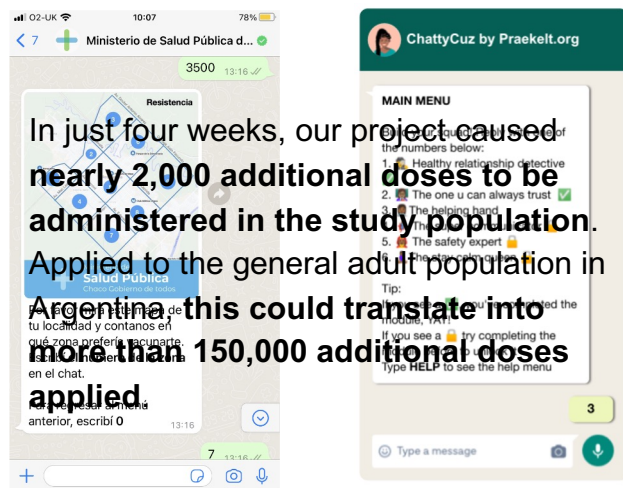


Theme	Message
Control	<i>You are now eligible for your free NHS Covid-19 vaccine. Please book yours now at [LINK] or by calling 119.</i>
Simple	<i>You can now book your free NHS Covid-19 vaccine. Please book yours now at [LINK] or by calling 119.</i>
Reserved	<i>Your free NHS Covid-19 vaccine is waiting for you. Please book yours now at [LINK] or by calling 119.</i>
Top of queue	<i>You've reached the top of the queue and are a priority for getting a free NHS Covid-19 vaccine. Please book yours now at [LINK] or by calling 119.</i>
Join the millions	<i>You are now eligible for your free NHS Covid-19 vaccine. Join the millions who have already had theirs. Please book yours now at [LINK] or by calling 119.</i>
Convenience	<i>You are now eligible for your free NHS Covid-19 vaccine. Choose a time and place that suits you. Please book yours now at [LINK] or by calling 119.</i>
Protection against virus	<i>You are now eligible for your free NHS Covid-19 vaccine. Getting vaccinated is the best protection against coronavirus. Please book yours now at [LINK] or by calling 119.</i>
Protect you and those close to you	<i>You are now eligible for your free NHS Covid-19 vaccine. Getting the vaccine is the best way to protect yourself and those close to you against coronavirus. Please book yours now at [LINK] or by calling 119.</i>

# Fast, large scale experimentation built into our systems



# Leveraging new tools: Chatbots for good



*Other chatbot projects:*

n = 249,705



South  
Africa



Kenya



Honduras



El  
Salvador



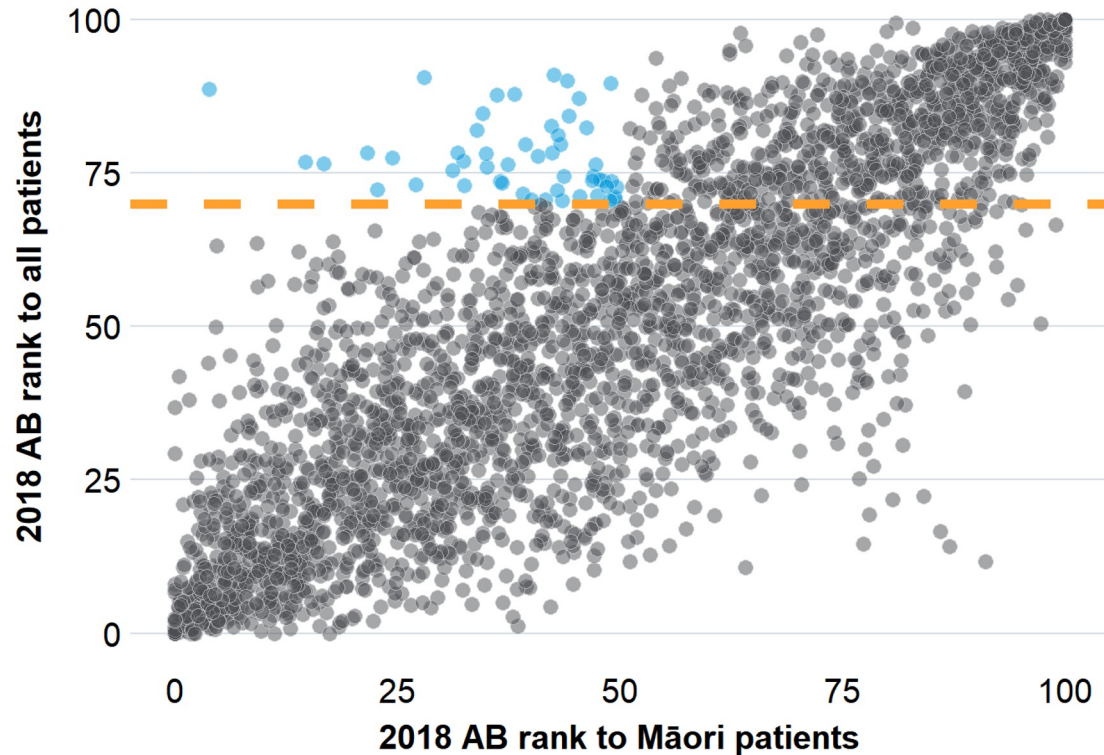
Peru



Nigeria

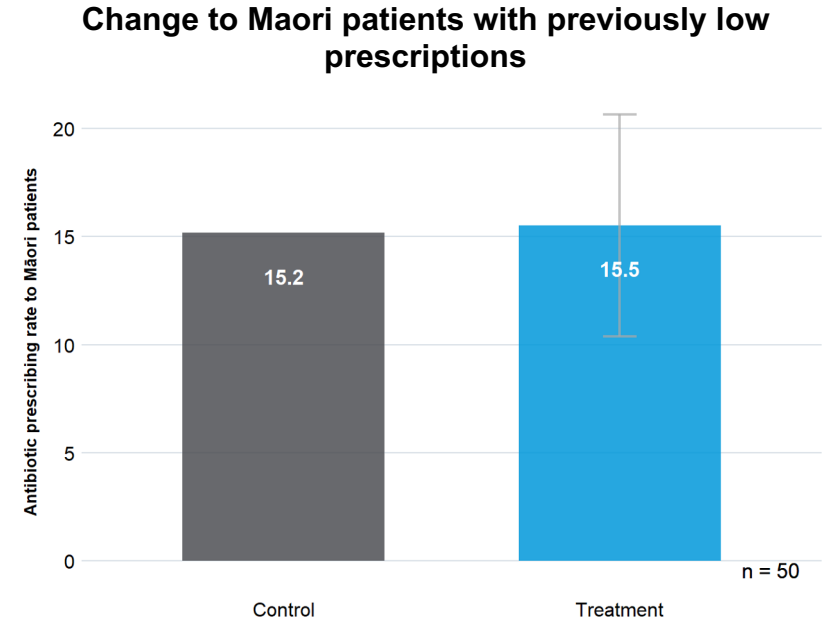
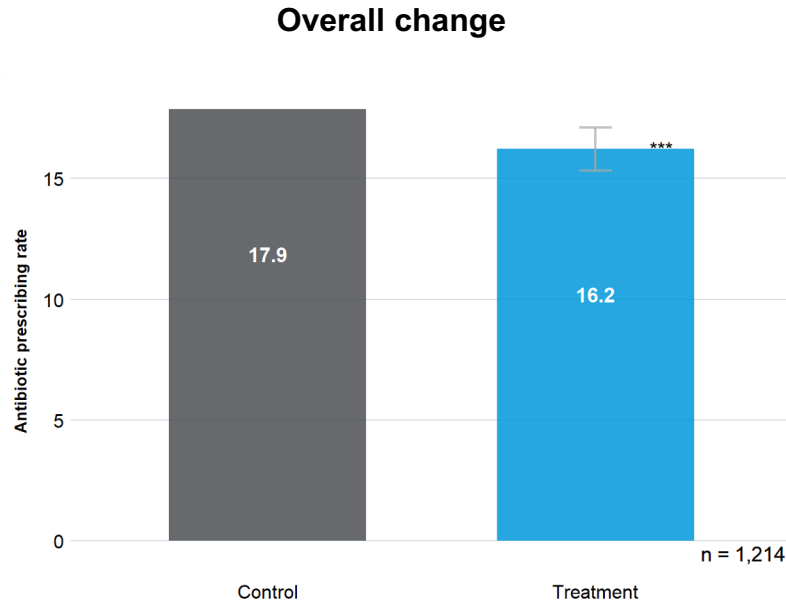


## Nudging clinical behaviour...

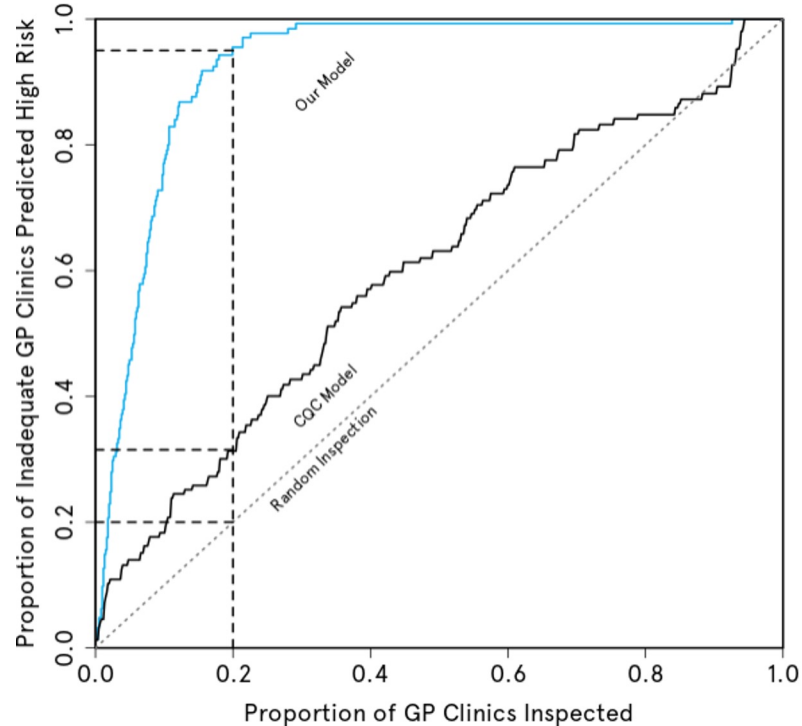


*Blue dots = high prescribers overall but low prescribers to Māori*

# Overall prescriptions reduced by 9.2%, without changing rates to low prescription Maori patients



# Harnessing machine learning and user experience



# Conclusion

# **Can we increase healthy life expectancy?**

- Behaviour change is not just individual level... think 'choice environment' and system
- 'EAST': Easy, Attractive, Social, and Timely
- Experiment and evaluate...rapidly, using technology and new tools

## Finally, enable the public to 'shape the shapers' (...cf forthcoming work with SPF!)

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THE  
BEHAVIOURAL  
INSIGHTS  
TEAM

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[president.office@bi.team](mailto:president.office@bi.team)

