



# THE BIKE SHED STUDIES:

Getting Brits back on their bikes

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# THE BIKE SHED STUDIES:

Getting Brits back on their bikes

A study carried out by HSBC UK and British Cycling  
in conjunction with experts in the Center for Decision  
Sciences at Columbia University, New York



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## Foreword by HSBC UK



**Why cycling? In six words: Simple. Universal. Healthy. Fun. Nostalgic. Freedom.**

There are defining moments in all our lives. Instances we remember forever, that shape and mould us. Learning to ride a bike is one such moment. Its ubiquity unites. It's a feeling you never forget.

Fifty per cent of UK adults are 'lapsed riders' – those who know how to ride but have stopped. They've forgotten or lost the freedom that came with getting on their bikes. This is sad for many reasons: it means they are missing the physical and mental health benefits of cycling; the financial savings that can come from not paying for petrol or parking; the joy of passing on and sharing the experience with their children. It means that cycling, for many, is a part of the past when it could be part of their present and future.

That's why our partnership with British Cycling is so exciting. Together, we want to get as many people as possible on their bikes. We know that changing people's behaviour is tough – especially when it comes to changing long standing habits. By applying the latest scientific understanding of human behaviour and how to influence it, we set out to understand how people actually think and act in real life when it comes to getting on a bike.


There's a cyclist in all of us. It just needs teasing out and our Bike Shed studies show just that. Over the past year we have undertaken a series of real life studies using different behavioural interventions and have found that even the smallest of changes can make a lasting difference to behaviour.

Getting more people cycling and developing it at grassroots level is what our partnership with British Cycling is all about. More people cycling will result in numerous benefits including improvements to health and to the environment.

I hope you find the insights and findings of our Bike Shed studies interesting, and using the action plan at the back of this report, inspire you to get out and cycle. **It's time to get on our bikes. Let's ride.**

**Luke Harper**  
HSBC UK's Head of British Cycling Partnership





**“This study highlights the small behavioural interventions that can make a huge difference along the way.”**

## An introduction from British Cycling



Human beings are creatures of habit and when it comes to cycling, we are no different. The benefits that cycling brings are obvious – from easing congestion on our roads, to improving the environment and our physical and mental wellbeing. Yet many of us do not ride a bike regularly or instead choose other forms of transport. The question remains – if it is so good for us, why don't we do it more?

At British Cycling, we are aware of the barriers that exist to cycling, whether that's safety, poor cycling infrastructure or people simply lacking confidence. Through our partnership with HSBC UK, we are exploring a new one – human behaviour. We want to understand people's behaviour when it comes to getting on bikes and get to the bottom of what is holding people back from enjoying it. Over the past 12 months, we have worked with HSBC UK to conduct a series of real life studies to truly understand what gets people out and on their bikes.

These results are tangible proof that we all have the potential to ride a bike regularly. We know that ultimately to turn Britain into a great cycling nation, we need proper commitment from government in cycling infrastructure projects but this study highlights the small behavioural interventions that can make a huge difference along the way. For example, our studies show that a little support from friends or family can have a big impact on not only getting people to go for a ride, but also getting them to stick to their cycling goals.

These results, coming at the end of our successful first year in partnership with HSBC UK, get us one step closer to achieving our shared goal of getting two million people to rediscover cycling by 2020. Britain has the potential to become a cycling nation. To do that we need to bring everyone on the journey so we can collectively make a change and we are thrilled to be working together with HSBC UK towards a greener, fitter and healthier country.

So, grab a friend, explore the country or join one of our rides and rediscover the joys of riding a bike.

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**Julie Harrington**  
CEO British Cycling



## Welcome to the Bike Shed studies

In summer 2017, we developed and ran a set of studies with HSBC UK and British Cycling to identify new and tangible ways to increase cycling. We're pleased to share the results.

These studies draw on approaches from a growing area of applied science called behavioural economics or behavioural science.<sup>1</sup>

Our surroundings influence our thoughts and behaviours in surprising ways. Behavioural science seeks to understand why we behave the way we do, and how we can help ourselves achieve our own goals while maintaining the freedom to decide for ourselves what's best.

Importantly, behavioural science allows us to generate new evidence-based solutions to persistent societal challenges, such as how people look after their health and wellbeing.<sup>2</sup>

The solutions we tested in the Bike Shed are based on robust scientific evidence and real-world testing – so we can build evidence about what works. These simple behavioural 'nudges' can be applied at a wide scale fairly easily and quickly, and still allow each of us to decide what works best for our own needs.



We ran three Bike Shed studies:

- The first two studies aimed to get people back on their bike at least once, as an important first step to creating a new cycling habit. We did this by testing a range of messages to motivate people to attend a cycling event; and gave people a brief yet memorable experience of cycling. In both cases we can present very encouraging results.
- A third study explored cycling habits, testing new ways to encourage people to stick with cycling once they've started. Changing long term habits is harder than changing a one-off behaviour such as attending an event. So we're especially excited to present encouraging results from this study.

These studies further the academic research into understanding cycling behaviours and form part of a wider body of work which explores the motivations behind human behaviour.

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**Hale Forster, M.A.**

**Hale Forster is a behavioural scientist. Hale is completing a Ph.D. in Psychology at the Center for Decision Sciences at Columbia University, New York.**





## Background to the Bike Shed studies

We've done a lot over recent years in the UK to help more people get on their bikes. Bike sharing schemes are increasingly common. More towns and cities than ever have built protected bike lanes on busy roads and junctions. Unprecedented success at elite levels has inspired a new generation to get into cycling but these initiatives have not yet transformed Britain into the cycling nation we want it to be.

The limited impact is, at times, blamed on the difficulty of changing people's behaviour. This is right: changing behaviour is tough – especially when it comes to changing long standing habits, such as how we spend our leisure time or how we travel to work or school.

People often behave in ways that are surprising and seem irrational; we could be saving more for our retirement or making healthier choices when it comes to our diet. Many people who can cycle and have enjoyed cycling in the past nonetheless do not – or have fallen out of the habit.

Behavioural insights reveal that most human behaviour is driven by automatic, instinctive and intuitive thought processes. Even decisions we believe people make rationally are often automatic, influenced more by context than by consciously thinking something through.

This means that solutions that appeal to rational decision-making processes, such as educational materials about the health or environmental benefits of cycling, are bound to fall short.



There is already a lot of academic literature and research that exist about getting people to cycle more.<sup>3</sup> The Bike Shed aims to build on the body of evidence that exists by going out into the real world and making a concrete contribution to understanding the real and tangible things that inspire action.

We've applied the latest scientific understanding of human behaviour to develop new types of solutions that actively help people to do the things they want to do – to help us become a greener, fitter and healthier country. These solutions may at first glance appear small or inconsequential but they're based on robust evidence and real-world testing so we can be confident that they work.

## The behavioural insights we applied and tested

Through the three Bike Shed studies, we tested a range of behavioural insights:

- **Framing effect:** Choices can be worded in a way that highlights either the positive, negative or emotional aspects of the same decision to inspire behaviour.
- **Intention-to-action gap:** Helping people to set goals, make plans for achieving them, and prompting people to make a commitment can reduce the possibility of failure – especially when intentions are viewed as not urgent.
- **Social proof:** Our behaviours are often influenced by those around us. As well as intuitively mirroring the behaviours of other people, we also feel a social obligation to 'not let the team down' by doing something differently.
- **Experiential learning** is the process of being engaged in a lifelike scenario to experience something – in this case cycling. This is different to learning experiences which are more passive and detached such as reading.

# The report: Key findings and recommendations

## Study one: Motivational messages to get people back on their bikes

One of the main lessons from hundreds of behavioural studies is that seemingly small changes to the context in which people make decisions can have an outsized impact. This study tested whether a range of simple changes to messages can encourage more people to attend cycling events.

### What we did

We aimed to encourage people to get back into cycling by attending a HSBC UK City Ride. These are free, family-friendly cycling events run by British Cycling in 14 cities across the country.

We applied three sets of behavioural insights to the registration invitations sent out by British Cycling to over 70,000 people. Each involved making small changes to the content of otherwise identical invitation emails.

- **Motivational messages:** We tested different reasons to attend. We contrasted messages focused on the fun of cycling, the nostalgia of rediscovering your love of cycling, and the health benefits. We also tested messages that combined all of these.

Messages appealing to a sense of fun or nostalgia were the most effective in motivating people to register. With the average improvement around

15%

Messages providing even a little more specific and tangible information about the cycling event increased registrations by around

75%

- **Tangible information:** Research shows how we visualise a decision can influence our thoughts about it.<sup>4</sup> We contrasted messages that provided a little more specific and tangible information about what takes place at the HSBC UK City Ride event. For instance, comparing statements that it is a fun day, with statements about what that fun day specifically involves.
- **Planning and reminders:** People may be interested in attending but for a variety of reasons do not register or attend. Research shows that simple reminders to make a plan can help encourage us to follow-through on something we want to do.<sup>5</sup> We contrasted typical invitation messages with messages that prompt recipients to plan to sign-up and attend, for example by marking the date on their calendar.

### The results were very promising

- **Motivational messages:** Messages appealing to a sense of fun or nostalgia were the most effective in motivating people to register. We

collected data across a range of events, and the average improvement is around 15% compared to alternative reasons to attend.

- **Tangible information:** Messages providing even a little more specific and tangible information about the cycling event increased registrations by around 75% compared to messages where this information was not included within the invitation.
- **Planning prompts:** Including a reminder to plan to sign up for the event nearly doubled registration rates. These prompts to make specific plans were especially effective when combined with more tangible event information.

### Implications – the motivations messages that will get people back on their bikes

Messages that emphasise the fun of cycling and tap into our sense of nostalgia can encourage people to get back on their bikes and rediscover their inner cyclist.

Planning prompts and reminders can help people push past those psychological barriers, such as procrastination. We should encourage people to make specific plans and set goals to encourage them to start riding.





# The report: Key findings and recommendations

## Study two: Brief cycling experiences to motivate lapsed cyclists

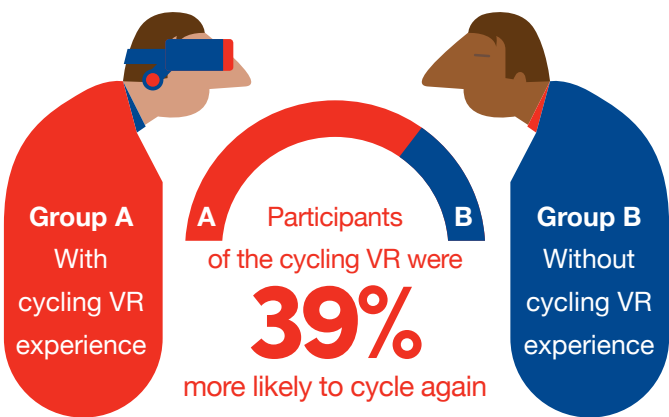
### What we did

Fifty per cent of UK adults are ‘lapsed riders’<sup>6</sup> – those who know how to ride but have stopped – and we wanted to find out what would inspire them to pick up cycling again. We tested whether experiencing cycling in virtual reality (VR) would inspire them to get back on their bikes.

The VR video itself consisted of people enjoying cycling, from learning to ride a bike as a child to taking a turn around the velodrome. This was compared to members of a control group, who watched a YouTube video about cycling.

Other variables remained the same for both groups. Both groups used the same stationary bike and headset to watch the content. The duration of both experiences was also the same as well as the demographics of people who participated in the experience.

We measured whether people were more likely to cycle in the weeks after the brief experience and whether the experience had an impact on their attitudes towards and perceptions of cycling.



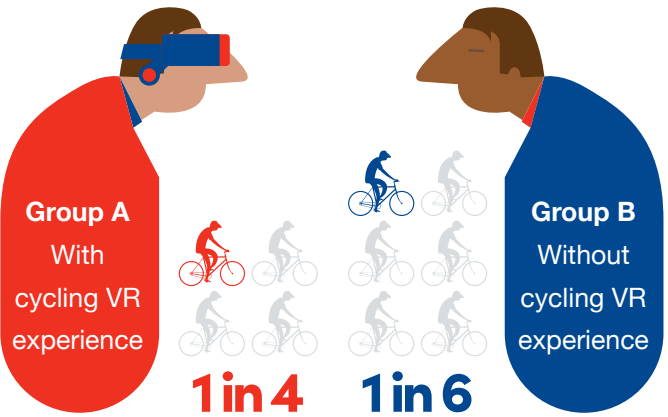
### The results were very promising

- We changed people’s cycling behaviour:**  
The study revealed that even a brief VR experience of cycling can inspire lapsed cyclists to start cycling again. Those who viewed the VR were **39%** more likely to cycle again compared with the control group.
- A quarter (25%) of people who viewed the VR experience also actually cycled in the weeks following the experience compared to one in six in the group who didn’t experience the VR.
- We also improved their views about cycling:**  
Simply visualising yourself cycling can have an impact on whether you cycle or not. **60%** of people who viewed the VR agreed afterwards that ‘cycling is fun,’ compared to **40%** of people who watched the control video. Forty per cent of people who viewed the VR said they were inspired to cycle.

### Implications – experiential learning

VR is becoming increasingly popular as a form of entertainment, a training tool, and a way to generate empathy by putting yourself in someone else’s shoes.<sup>7</sup> To date, VR has not been widely used as a tool to change behaviour around cycling or other types of physical activity. Our preliminary study of 100 participants shows it may have strong potential as a means of cycling and physical activity behaviour change.

### Who went on to do more cycling?



# The report: Key findings and recommendations

## Study three: Creating new cycling habits

We lead busy lives, and changing lifestyle habits is hard. We see this around us in our everyday lives; we don't eat as healthily or do as much physical activity as we know we should.

This is the challenge we tackled in our third study: how to encourage people to develop new cycling habits. Even a small-scale impact in sustained cycling could make a measurable difference to many people's lives.

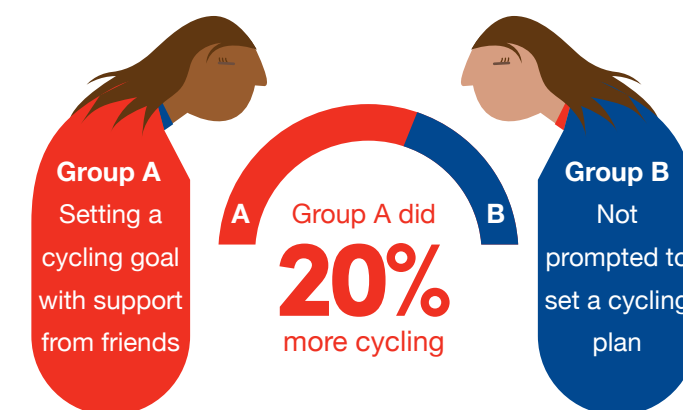
### What we did

We applied a set of behavioural science approaches that help people make plans, set goals, and feel accountable to themselves or to others to stick to those goals. These approaches help bridge the gap between someone's good intentions (to cycle more) and their subsequent actions (not doing so).

When individuals make plans and self-commit to achieving a goal, they are more likely to achieve it.<sup>8</sup> This does not need to be an enforceable goal. And making a plan and setting a goal is of course entirely voluntary.



### Who did more cycling?



### The results showed that setting goals with family or friends' support is highly effective

- People who were prompted to make a cycling plan and set cycling goals with support from friends or family went on to do 20% more cycling during the following four weeks, compared to people who were not prompted to make a plan.

### Implications – setting cycling goals with friends and family

This is a very exciting result, as we've identified a simple and effective way to help more people cycle as a habit. We've shown the importance of taking a moment to set out your cycling goals with the support from friends and family. These approaches can be applied at cycling events or by employers using the leaflets or built into online systems or apps.

- We developed a set of cycling interventions and made these into leaflets. We recruited 2,415 volunteers to take part in our study at five HSBC UK City Rides in 2017.
- Volunteers were encouraged to write their own cycling plans and set their own goals, using our leaflet in a short exercise. We then encouraged them to retain their plans as a visible reminder, such as sticking it to their fridge.
- Importantly, some of the leaflets included a prompt to get support from a friend or family member – for example to have someone nudge you to get out of the house on a gloomy Sunday morning. This created a sense of support as well as informal accountability to someone else.





**“We all have a cyclist within us. It just needs teasing out – primarily through fun, friends and family.”**

## Conclusion

Our Bike Shed studies have shown that small interventions can lead to long lasting changes to behaviour. We all have a cyclist within us. It just needs teasing out – primarily through fun, friends and family.

The Bike Shed studies are the first step in helping us to understand cycling behaviours and get two million people to cycle. There are many opportunities to apply behavioural science and there is much untapped potential.

Going into 2018, the findings from these studies will be applied at scale. We will incorporate the messages of fun and nostalgia in emails inviting people to attend our events, from the HSBC UK Breeze Rides that aim to inspire more women to ride through to the 14 HSBC UK City Rides we have taking place across the country. Encouraging greater use of virtual reality in upcoming Bike Shed studies and expanding our cycling plans study at more HSBC UK City Rides can help to motivate more people to get back on their bikes.

In addition, we will publish the motivational messages study and the cycling habits study in peer-reviewed journals, to subject our data and interpretation to the highest levels of academic scrutiny. With the Bike Shed studies continuing into 2018 and beyond, we are ambitious for the further evidence on what works in the coming years.

**Let's ride.**

### Your three point action plan

Here's what you can do to encourage people (or yourself!) to start riding a bike:

1. Remind people how much fun cycling can be! It can get you up a mountain or down to the shops. It can give you a lovely family outing or give you a way to see a friend. Rediscover the joys of cycling.
2. Make a pledge or a promise with a family member or friend! Our studies have shown that cycling is at its most powerful when it is a social pursuit and a simple promise can help you stick with your cycling goals.
3. Think about the small things you could do to get you back on a bike again, whether that's to fix a tyre puncture, buy a new helmet or dusting off your bike. The trick is to start small when it comes to forming new habits again like riding a bike!

**“Our studies also found that even small changes can have a big impact to help us become a greener, fitter and healthier country.”**





## Methodology and references

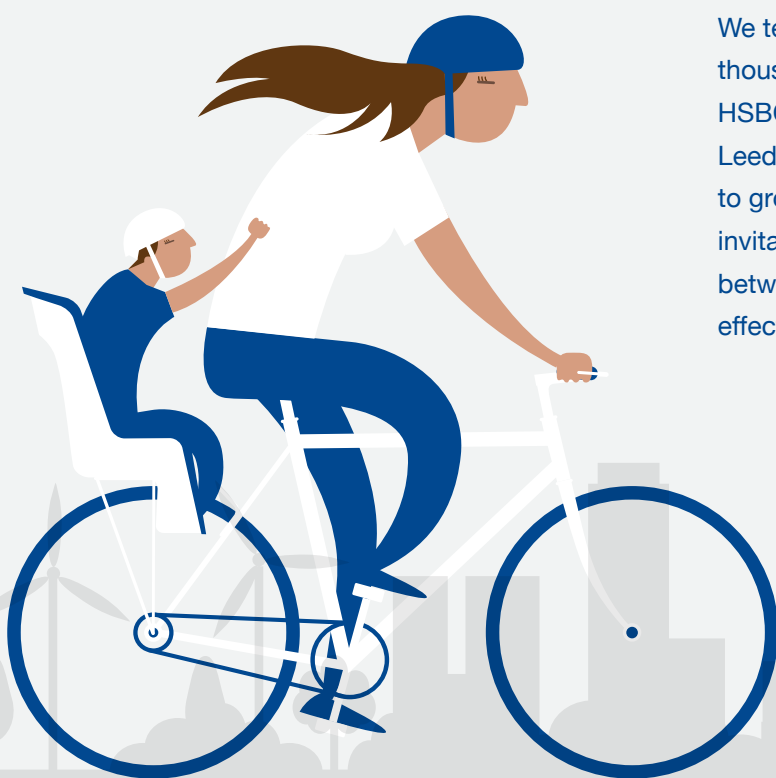
**We've explained the results of the Bike Shed studies. Here, we set out how they were conducted. These results demonstrate the promising results from our initial tests, and we will continue to confirm and verify through repeated testing.**

**We ran the Bike Shed studies as randomised controlled trials, the most robust form of testing.**

The key to demonstrating if an intervention is responsible for an outcome is to identify what would have happened if the intervention had not been implemented – and compare. The most robust way to do this is to randomly assign participants to different interventions. This randomisation approach eliminates most problems of comparison that normally complicate an evaluation. This is the basis of all our studies.

**Bike Shed study one, motivational messages to get people back on their bikes, was conducted with British Cycling.**

We tested the content of the emails sent to tens of thousands of people to invite them to register for the HSBC UK City Rides in Sheffield, Manchester, Bristol, Leeds and Liverpool. We randomly allocated people to groups to receive different variants of the email invitation. We then compared the registration rates between those groups to measure which were most effective.



**Bike Shed study two, brief cycling experiences to motivate lapsed cyclists, was conducted with HSBC UK staff at workplaces in Hamilton and Leeds.**

We arranged for a virtual reality (VR) cycling experience to be available for staff throughout the day. Staff volunteered to participate in the study. We then randomly allocated them to either the VR cycling experience or to a non-VR experience as a comparison group. We measured cycling rates before the experience and again two weeks after. This was self-reported via a questionnaire. We then compared the cycling rates between the groups.

**Bike Shed study three, creating new cycling habits, was conducted with British Cycling.**

This study was with 2,415 volunteer members of the public attending the HSBC UK City Rides in Cardiff, Bristol, Leeds, Edinburgh and Liverpool. Volunteers were randomly assigned to receive one of three leaflets and to have a brief conversation with an interviewer. One group made a cycling plan, set goals, and were

prompted to take the plan home. A second group made a similar plan, but with the addition of support from friends or family. A third group received a leaflet with information about cycling; this was the comparison group. We measured cycling rates before the event and again two and four weeks after. This was self-reported via a questionnaire. We then compared the cycling rates between the groups.

### References

- <sup>1</sup> What is behavioural economics?  
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- <sup>2</sup> Applying behavioural insights to improve health outcomes  
<https://www.imperial.ac.uk/blog/ighi/2016/11/29/applying-behavioral-insights-simple-ways-to-improve-health-outcomes/>
- <sup>3</sup> Yang, L., Sahlqvist, S., McMinn, A., Griffin, S. J., & Ogilvie, D. (2010). Interventions to promote cycling: systematic review. *BMJ*, 341, c5293.
- <sup>4</sup> Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, 117(2), 440–463
- <sup>5</sup> Nickerson, D. W., & Rogers, T. (2010). Do You Have a Voting Plan? Implementation Intentions, Voter Turnout, and Organic Plan Making. *Psychological Science*, 21(2), 194–199.
- <sup>6</sup> British Cycling – The Annual Cycling Survey conducted with GfK
- <sup>7</sup> Riva, G., et al. (2016). Transforming experience: the potential of augmented reality and virtual reality for enhancing personal and clinical change. *Frontiers in Psychiatry*, 7.
- <sup>8</sup> Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. *Advances in experimental social psychology*, 38, 69–119.

About HSBC Bank plc

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About British Cycling

British Cycling is the national governing body for cycling as recognised by the UCI – the international federation for the sport. Based in Manchester at the National Cycling Centre, British Cycling works across all levels and six disciplines of the sport (BMX, Mountain Bike, Cyclo-cross, Road, Track and Cycle Speedway), from providing the support and encouragement people need to get riding their bikes for the first time, to being home to the hugely successful Great Britain Cycling Team. Continued success at the highest level is inspiring a boom in participation across the nation. There have never been more opportunities to ride a bike, be it for fun or sport, and British Cycling is at the heart of this growth. British Cycling also works hard to represent cyclists’ interests at all levels, including campaigning on important issues including road safety. As a membership organisation, British Cycling provides a suite of benefits and support to its members who currently number over 138,000. All membership revenue is invested back into cycling. For more information, visit [www.britishcycling.org.uk](http://www.britishcycling.org.uk)

Practical steps – Create your own cycling plan

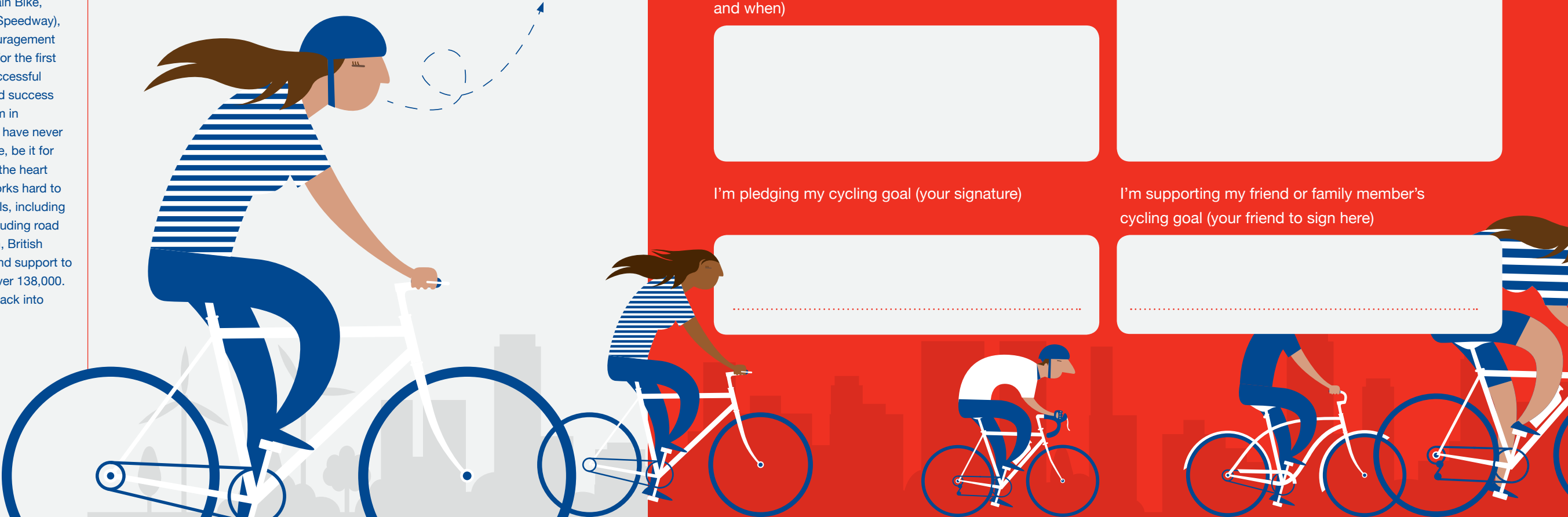
You’ve read about the studies. Now you can apply the science to your own cycling habits!

Use this page to set out your own cycling goals and make your own cycling plan. Or pass this to a friend or colleague who wants to get back on their bike.

Keep your cycling plan in a visible place as a reminder, for instance stuck to your fridge.

For more info on HSBC UK City Ride, visit:

WWW.LETSRIDE.CO.UK



My cycling plan



Cycling plan for...

I want to do more cycling because...

To help me cycle more over the next 6 weeks, my goals are... (think about how many times you want to cycle per week)

These are the specific things can I do to achieve my goals... (think about who you'll cycle with, where, and when)

I'm pledging my cycling goal (your signature)

I know I may not cycle if...

I will therefore...

I'll be supported in achieving my cycling goals by... (find a family member or friend who can support you, even if they're not cycling with you)

Together, the things we'll do to support each other are...

I'm supporting my friend or family member's cycling goal (your friend to sign here)