What is Behaviour-Centered Design?
Behaviour-Centred Design (BCD) is a radically new approach to behaviour change, centered on behaviour, not cognition or communication. Developed by a team in the Environmental Health Group at LSHTM, BCD blends a fundamental understanding of the purposes of human behaviour (in a Theory of Change) with the creative processes of consumer marketing. Using an evolutionary framework, it uses the latest science on human behaviour to identify the levers that can change it. It then has five design steps: Assess, Build, Create, Deliver and Evaluate (ABCDE), to create successful behaviour change programs.

What is evolutionary theory and why is it important to behaviour change?
If you want to understand behaviour, and how to change it, it’s important to understand how our ancestors survived and reproduced. Evolutionary biology tells us why we do what we do. This gives us logic to analyse human behaviour today.

The three brains
There are three ways that brains evolved to control behaviour: the executive, motivated and reactive systems. Though we like to think we are in conscious control, most behaviour is actually determined by the motivational system and by the automatic habits and routines that we have learnt in particular ‘settings’.

The power of behaviour settings
Meal times, business meetings, air travel, classes, religious services, waiting at a bus stop, behaviour almost always takes place in specific, repeated contexts, with specific features. These are ‘behaviour settings’, each with their own purpose, designated place, set of objects, and a prescribed set of behaviours. Recognising the power that settings exert over behaviour suggests that we need to look to the supportive social conventions, physical objects and infrastructure to change behaviour. Disrupting settings is a powerful and sustainable way of embedding healthier behaviour in daily life.
The fundamental motives
Any species must solve a variety of problems to survive and reproduce, according to how they make a living in their niche. Humans have 15 such problems. For example, we must Attract members of the other sex, fall in Love to form a pairbond, engage in Lustful behaviour to have offspring, and then Nurture the newborns, as children need help to survive. Following the dictates of motives like Play, Affiliation, Status and Justice ensure that we get what we need. Marketers have always implicitly understood this, but without knowing exactly what consumers need.

The crucial ingredients for behaviour change campaigns:
**Surprise:** Most everyday behaviour is settled into fixed channels. To shake behaviour out of these ruts, something new has to happen. So if we are to persuade behaviour into new directions, we first of all have to provide surprising stimuli to get exposure and grab attention.

**Reevaluation:** Our brains are constantly scanning the environment for opportunities to employ behaviour to get what the brain or body needs (or avoid what might harm it). Success in meeting needs is rewarding. The target behaviour has to be revalued, such that it is rewarding, when it meets one of our 15 fundamental needs. This is how new behaviours are learnt.

**Enabling Performance:** For the target behaviour to be performed requires an opportunity and for it to be the best choice of a range of options in a behaviour setting. The task is thus to disrupt the behaviour setting to facilitate the desired behaviour.

About the Environmental Health Group at LSHTM
For over three decades, the EHG has produced world-class research in WASH and health, driving science, as well as policy and practice. We are a multidisciplinary group with engineering, epidemiology, psychology, biology, statistics, social sciences, evaluation science and economics expertise. We cover everything from the development of innovative toilet designs to the control of cholera, trachoma and diarrhoea. We study hand hygiene, household air pollution, menstrual hygiene management and the way WASH intersects with other fields such as nutrition and maternal health – just to name a few! For more information visit our website at ehg.lshtm.ac.uk

About the Hygiene Centre
The Hygiene Centre, within the Environmental Health Group, originally emerged in order to fill a research gap around hygiene, something that been neglected in WASH programming for decades. However as leading researchers Val Curtis and Robert Aunger soon discovered, behaviour change is key to WASH. This led to the development of BCD and its application in trials on handwashing, diarrhoea prevention behaviours, food hygiene, nutrition, HIV prevention, trachoma prevention and sanitation demand in low and middle income countries around the world, as well as work for industry on product design and marketing.