

# A Healthier Future in the Hands of Mumbai's Underserved Communities

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## Key messages

- > The second half of humanity is now online, and has access to smartphones. This gives us an opportunity to equip underserved communities with the knowledge, incentives and resources to drive preventive health.
- > Society collectively accrues the benefits of children living to their full potential. We have built a mobile app that is designed to enable the entire community to contribute to building healthier childhoods.
- > Through incentives, carefully designed behavioral nudges, and storytelling combined with a gamified journey, we nudge parents towards better health and nutrition choices for their children.

## The potential of smartphones to raise healthier kids

A good foundation in the early years gives the next generation a better start. Early years of childhood form the basis of intelligence, personality, social behavior, and the capacity to learn and nurture oneself as an adult. This is why children need the best possible nutrition and early development inputs in order to enter the formal education system with the hope of achieving the best outcomes.<sup>1</sup> However, India still struggles with providing adequate nutrition and early development to its children.<sup>2</sup>

“We believe that raising healthy children is as much a responsibility of the community as it is of the parents”

On the other hand, the expanding reach and penetration of data-enabled mobile phones, including among low-income communities, is rapidly facilitating the delivery of services in a cost-effective, fast and seamless manner.<sup>3</sup> With this in mind, Saathealth (*Saath* meaning together) was designed to support parents of young children in building healthier childhoods. We believe that raising healthy children benefits the collective society, and hence is as much a responsibility of the community as it is of the parents. Our formative research began in the city of Mumbai, in Govandi – a community that records the lowest human development index in the city, at 0.05, where more than half of the children studying in municipal schools in the area are malnourished.<sup>4</sup> We generated primary research insights from more than 250 new mothers and fathers living in low-income communities, informing our understanding of the core barriers and digital needs of this population. Next, a multidisciplinary design team of IT experts, behavioral scientists, healthcare professionals, designers and user researchers co-designed a mobile prototype for maternal and child health information. Iterative field-testing, interviews and analytics guided the adaptation of the prototype.<sup>3</sup>



A woman in Govandi and her young child watch Saathealth content together on their smartphone

**FIGURE 1:** Saathealth's leaderboard drives community engagement and nudges healthier habits



### Saathealth drives positive behavior change

Our parenting app was built to provide behavior change messaging on children's health, nutrition and cognitive development using an entertaining format. We combine storytelling with gamification to nudge parents towards better health and nutrition choices for their children. These stories are built around identifiable characters and a storyline that our audiences can relate to and engage with. Our narratives build upon the light-hearted nature of conversations, including the subtle humor that one would see in most Indian families. Through Saathealth, we explored a unique opportunity to equip the community from within the existing ecosystem in Govandi by establishing strategic partnerships with local grocers and merchants. This enabled us to negotiate discounts on health and nutrition products that we passed on to our families as an incentive for making healthier purchases (Figure 1).

### Strengthening the behavior change focus

The most significant challenges in behavior-driven healthcare changes, such as tobacco use, poor diet and nonadherence to medication, are built on the understanding that behavior is subconsciously influenced by the context within which it is placed.

In India, behavior change is generally approached using traditional policy tools such as legislation, regulation and providing access to information. Among our users, however, we observed that choices are strongly influenced by emotions, the environment and how options are presented. Young parents tend to be the most open to positive behavior changes. Thaler and Sunstein, in their book *Nudge*, suggested that it is possible to 'nudge' towards better choices by incorporating insights about cognitive boundaries, biases and habits.<sup>5</sup> We adapted these principles into our intervention by (1) providing financial incentives for healthy purchases through our mobile application, (2) incorporating a social dynamic to the ecosystem we created, and (3) refining the gamification experience to improve retention and engagement.

### Incorporating consumer insights

After a year of regularly evaluating ongoing consumer-generated data and working with gamification experts, we saw an opportunity to reimagine aspects of the user experience. Over a year, our users had developed their mobile behaviors to accommodate the use of sophisticated mobile apps with complex interfaces. Our users were now used to a greater sense of autonomy on apps: they had to be in charge of their journey and own their progress. Their feedback and behaviors informed the evolution of our app. The new app has been optimized to improve engagement with our content, and thereby more effectively nudge users towards the desired choices.

### The intervention

The new Saathealth app offers incentives designed with the understanding of our users' behaviors. Users have access to a curated basket of 24 nutrition items that are available at partner merchant stores (Box 1). These items are recommended by the local nutrition guidelines and are a healthy, economical and easily accessible way to ensure that families have a healthy diet.<sup>6</sup> For example, we observed that expanding the

#### BOX 1: Nutrition items available on the app

##### List of products offered on the app at partner merchant stores

- > Wheat
- > Rice
- > Pulses
- > Groundnut
- > Beaten rice
- > Tapioca
- > Jaggery

- > Coconut
- > Egg
- > Clarified butter
- > Milk
- > Raisins
- > Soya
- > Various types of millet

number of choices was an effective way to change behavior: when users had access to 10 offers and discounts on healthy products, instead of one or two a week, they were more likely to consider making a purchase. Additionally, we created and communicated a scarcity for these offers through targeted in-app notifications, creating an urgency to drive users towards target purchasing behaviors.

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**“Our inherent conditioning creates a need to belong and seek affiliation with others around us”**

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#### Targeted behavior change nudges

We began to incorporate aspects of social influence in our app experience, based on the insight that our inherent conditioning creates a need to belong and seek affiliation with others around us.<sup>7</sup> Through targeted notifications, we now provide information that informs users about socially acceptable behavior. For example, we link the weekly content theme (breastfeeding, for example) with nudge messages such as *“Did you know that mothers should only give their newborn child breastmilk for the first*

*six months?”* A series of targeted messages about tracking children’s milestones was extremely successful. Notifications asking questions such as *“Did you measure your child’s height and weight today?”* and providing links to content that explained the importance of these activities were effective in driving these behaviors. Using targeted social messages that inform users of what others are doing in similar situations begins to normalize target behaviors and nudges users towards conformity with social norms. We explored another aspect of social influence through the creation of leaderboards on the app. This new feature displays the highest scoring Saathealth users, and provides each of them with a ranking based on their engagement, quiz scores and self-reported behaviors. This feature is designed to support the user in their journey towards a positive and consistent self-image, offering them a sense of achievement while socially rewarding positive behaviors.

Lastly, we have created a visually appealing game environment that enhances the users’ knowledge, giving them a sense of personal mastery, and promotes observational learning through the use of relatable characters.

#### The outcome

So far, 72 percent of Saathealth families reported that their knowledge of their children’s health and nutrition had increased since joining our ecosystem. Additionally, 69 percent of users report that they have increased their children’s consumption of high-protein products such as eggs and lentils since downloading the Saathealth app. As the monsoon season is associated with an increase in the prevalence of mosquito-borne diseases, we focused on preventive content and messaging. Before watching our videos, only 36 percent of our users knew how to correctly prevent mosquito bites. That number rose by 74 percent after users interacted with our gamified content experience. By consistently collecting insights from our users and carefully applying them into an iterative design process that involves purposeful structuring of the content, timing of messages and presentation of options, we are continually evolving our algorithms to positively influence behavior.

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**“Saathealth has been deliberate in connecting with the values, needs and concerns of our users”**

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Saathealth has been deliberate in connecting with the values, needs and concerns of our users. Incorporating positive emotions in our messaging cements behavior change, and is a great opportunity to connect parents to their goal of a future where their children can live up to their fullest potential, simply through an eco-



Saathealth communities are empowered with the tools and incentives they need to lay the right foundation for their children

system created on a smartphone. One of our first success stories was an increase in the purchase and consumption of protein-rich foods such as lentils and eggs. Videos that promote the health benefits of protein were tied to quiz questions that checked the users' knowledge of the subject. Users could unlock offers on eggs at local merchants, and we could track their shopping behaviors, which gave us clear indications of the increase in the purchase of protein-rich foods. While consumers will continue to use their smartphones for the consumption of entertainment and information on the mobile internet, it would be a missed opportunity if we did not leverage this powerful tool to also empower them with basic needs such as health and education products. The ubiquity of data-enabled phones and the increasing use of technologies powered by artificial intelligence unlock unprecedented opportunities to reach and serve billions of new underserved consumers with transformative products and services.

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