JULY 2023

Give Your Car (and Wallet) a Break

Enabling more sustainable commutes in Pristina, Kosovo

Poor air quality threatens the health and quality of life in Pristina, Kosovo. This problem is exacerbated by an increasing reliance on cars for commuting. We worked with the United Nations Kosovo Development Programme and local government officials to understand why Pristina residents use public transit so little. We piloted a campaign that aimed at shifting commuting behavior toward more sustainable practices.

Background

Air pollution presents wide-ranging and troubling consequences for climate change, human health, and quality of life. In Pristina, Kosovo's capital, the problem is acute: in 2019, the city ranked as the third most polluted capital city in Europe. Data from the U.S. Environmental Protection Agency found that in 2017, the air in Pristina was rated "unhealthy" 50% of the time and "very unhealthy" 20% of the time, posing a serious threat to the health of residents and forcing them to stay indoors. The World Bank estimates that air pollution is responsible for 760 premature deaths in Kosovo per year, with 11% of those deaths occurring in Pristina.

Highlights

- Private cars are a significant and growing contributor to air pollution in Pristina, Kosovo.
- Five behavioral barriers lead residents to overlook public transit, even when it would in fact be a viable alternative.
- We designed ways to encourage Pristina residents to use public transit more, improving their commuting experience and suggesting how to encourage more environmentally sustainable transit in the future.

Although coal power plants and combustion for household heating are the main sources of Pristina's air pollution, road transport also plays an increasingly significant role. The number of vehicles has been rapidly increasing (at a rate of 8.5% per year for the past six years), and the majority of cars do not meet current European emission standards. Private cars and taxis are a major mode of transportation in Pristina (44%), contributing significantly to both pollution and congestion, which is most problematic at peak traffic hours when individuals commute to and from work.

To address this issue, ideas42 partnered with United Nations Development Programme (UNDP), Kosovo, and the Municipality of Pristina. Residents rely on car commutes in part due to poor infrastructure for walking or biking and a lack of well-developed public transportation. However, research and experience from other cities suggest that social and psychological factors also influence commuting behavior. ***We employed a behavioral science approach to encourage individuals in or near Pristina's city center to use alternative modes of transportation to travel, especially during peak hours.***

Behavioral Barriers to Car Alternatives

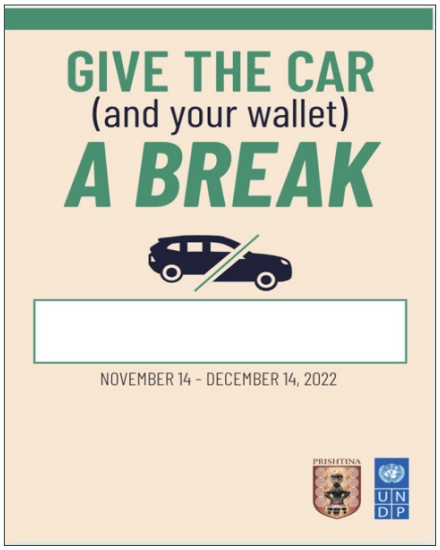
With the support of UNDP, municipality staff, and urban planners in Pristina, our team examined existing literature, reviewed documents about Pristina's transportation, and conducted in-depth interviews with residents to better understand the behavioral barriers preventing them from using alternative modes of transportation. We identified five key barriers:

1. Many car owners have a strong habit of commuting by car, which leads them to ***automatically default to driving everywhere,*** even when walking or taking the bus would be faster, less expensive, or more convenient.
2. Bus schedules are unreliable, sidewalks and bike lanes are sometimes lacking, and certain areas pose safety concerns to pedestrians. Because of this, individuals may overgeneralize the prevalence of these issues, leading them to ***perceive using the bus or walking as unfeasible alternatives*** even when they might actually be preferable.
3. The social, environmental, and personal monetary costs (e.g., gas and parking) of driving are not salient at the moment an individual decides to drive to work. In contrast, the costs or inconvenience of walking or riding the bus are incurred in the moment. Drivers may therefore ***focus on the immediate benefits of commuting by car,*** while ignoring or underestimating the costs.
4. Despite acknowledging the negative environmental consequences of using a car, drivers may engage in motivated reasoning to ***justify their car use by their "unique" needs and situations.*** For example, they might argue that their children attend school in an especially inconvenient location, or that their house, unlike others, is situated on a steep hill.
5. Seeing daily traffic congestion and a scarcity of parking spots can create the perception that virtually all Pristina residents commute by car. In addition, young people and the elderly are often seen waiting for buses. ***This may lead to the belief that driving is the socially preferred behavior and the social norm for those who can afford it.***

A behavioral campaign to decrease driving: "Give your car (and wallet) a break!"

To address the behavioral barriers to using alternative commute options, we developed a behavioral intervention with multiple components, united by a campaign slogan, "Give your car (and wallet) a break." The intervention applied behavioral principles that respond directly to the barriers identified, such as making the costs of driving salient, removing hassles associated with using the bus, making plans and soft commitments, and promoting new, positive social norms.

1. We provided participants with a free, personalized 30-day bus pass that featured their name and the campaign logo. Unlike regular bus passes that need to be purchased from only a few physical locations and require users to bring their own printed photograph, the participants could conveniently collect the passes from their workplace. In addition, we also provided them with a map of the public bus lines to make it easier for them to plan their route.



2. We provided participants with a trifold calendar for the months of November and December. The calendar included the schedule for a free bus line available for municipality employees, a QR code linked to the public bus schedule, and space for employees to mark each day they commuted without using a car.

3. We sent emails inviting participants to fill out an online form at the end of each week. The form encouraged them to identify when and how they planned to travel to work without using their car the following week. To support their efforts, we sent reminder emails, along with a personalized commitment based on their plan. In addition, we offered an incentive by entering those who completed the planning forms into a raffle to win a campaign-branded water bottle.

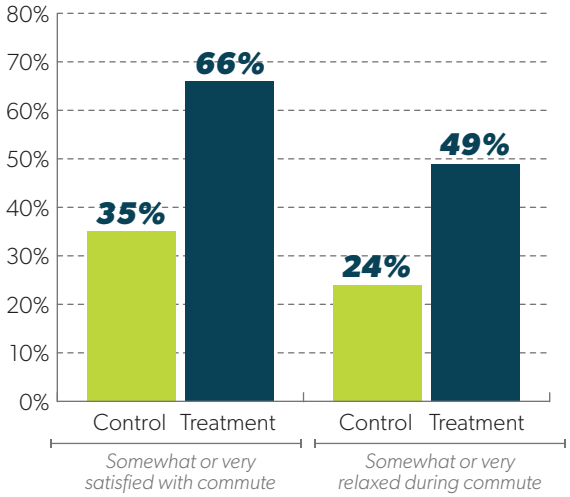
4. To further promote car-free commuting, we also highlighted positive social norms in emails and other communications. Specifically, we emphasized the prevalence of car-free commutes among peers and emphasized the social and environmental benefits of commuting without a car.

Results

We piloted the "Give your car (and wallet) a break" campaign over a two-week period with employees of the Municipality of Pristina, and used a randomized controlled trial to test its impact. The treatment group (142 employees—a limit imposed by the available funds for bus passes) were randomly selected at the department level to participate in the intervention, while the control group (235 employees) did not. We relied on self-reported data to evaluate the intervention's impact on employees' commuting behaviors and attitudes.

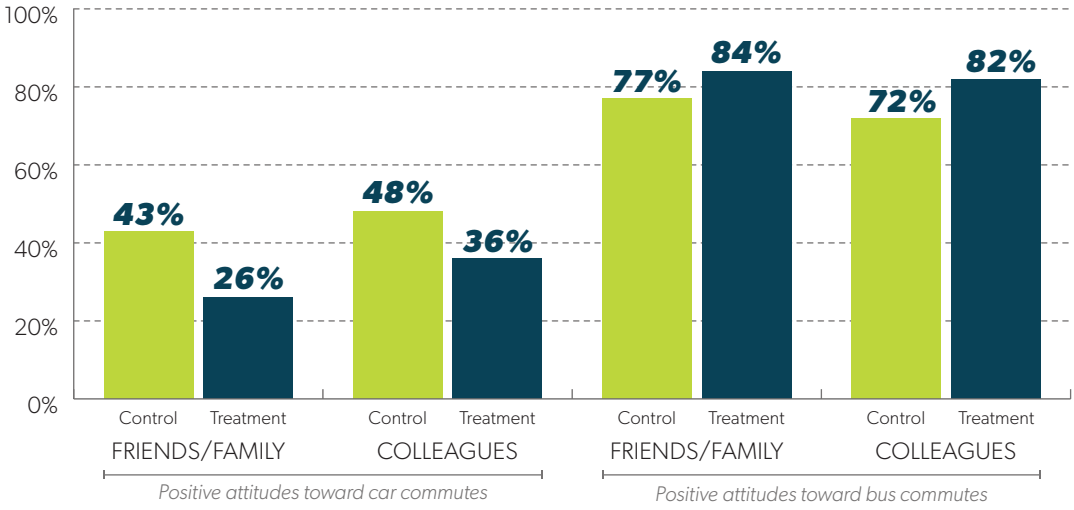
1. ***The intervention decreased the frequency of commuting by car.*** On average, the treatment group used cars to commute one day per week less than the control group. Moreover, 59% of employees in the treatment group reported driving "a little" or "much less" than usual.
2. ***The intervention increased the number of employees commuting on foot.*** The proportion of employees that walked to work at least once a week was 118% higher for the treatment group compared to the control group. The average number of days walking to work was also higher by 0.94 days per week for the treatment group. This increase is especially notable because the pilot ran during Pristina's winter, when cold weather and ambient air pollution likely make walking a less convenient alternative compared to other times of the year.
3. ***The shift improved the commuting experience.*** The treatment group had a better commuting experience. In particular, the proportion of employees who reported being satisfied with their commute was 85% higher in the treatment group (Figure 1). Additionally, the proportion who reported that they felt relaxed during their commute was 102% higher among the treatment group. Furthermore, the treatment group was 45% less likely to report concerns related to commuting costs and 54% less likely to report concerns related to commuting time.

Figure 1: Employees' Commute Experience (Satisfaction and Relaxation)



4. ***The intervention shifted employees' perceptions of social norms surrounding transportation choices.*** When asked what proportion of their colleagues drive to work, the control group's estimate was 16.7 percentage points lower than the treatment group. Moreover, the treatment group was more inclined to perceive positive attitudes toward bus commuting among friends and family, and less likely to perceive positive attitudes toward car commuting (Figure 2).

Figure 2: Attitudes Toward Car and Bus Commutes



5. ***The treatment group had higher intentions to walk to work in the future.*** Respondents in the treatment group were 54% more likely to report intending to walk at least one day the following week, and an intention to walk, on average, 0.7 days per week more than the treatment group. However, there was no difference in intentions to use the bus.

Conclusion

The outcomes of our pilot intervention have showcased the potential of a behavioral approach to transform commuting habits in Pristina. When combined with essential structural and infrastructure improvements, scaling up similar interventions could alleviate traffic congestion and enhance air quality in the city. We recommend that other organizations and municipalities continue to test and, where appropriate, adopt the insights and lessons from this work to promote sustainable transportation behaviors that benefit individuals, society, and the environment.