

****PRESS RELEASE****

Healthy beverage policies:

They need to promote tap water to optimize environmental as well as health benefits

2022 February 1, Santa Barbara, California

If you want to quench your thirst on a typical college or university campus in the US, most of the available choices are soda, or energy, sports, juice, and coffee drinks, all sweetened with added sugar. Drinking these sugar sweetened beverages (SSBs) increases the risk of obesity and diseases like diabetes, dental cavities, and liver and heart disease.

That's why some colleges and universities, as well as hospitals, governments and other institutions in the US, including the 10 campuses of the University of California (UC), are beginning to adopt healthy beverage initiatives (HBIs) to reduce consumption of SSBs.

There is also increasing awareness of the environmental impact of beverage containers, especially plastic bottles. However, aluminum, carton, and other containers also have environmental impacts, and so do beverage ingredients like sugar, juice, milk and coffee.

Yet the potential for HBIs to benefit the environment is unknown. This knowledge gap was addressed in a paper just published by members of the UC Santa Barbara Healthy Beverage Initiative Research Group (HBIRG). The authors carried out an environmental life cycle assessment using data on all beverages consumed on that campus during one calendar year. Of the total 940,773 liters, 67% were SSBs, 22% non-SSBs (beverages, like diet drinks, that do not contain added sugar), and 11% bottled water.

They analyzed the greenhouse gas emissions, fresh water use, and plastic pollution of both the beverage liquid contents and containers. They found that the liquid contents were responsible for a much larger proportion of the total greenhouse gas emissions and fresh water use than containers—68% of the climate impact and 97% of the water impact. They also found that while aluminum containers are promoted as a replacement for plastic containers, aluminum containers had greater greenhouse gas emissions per liter.

The researchers then estimated the potential of 12 different HBI scenarios to reduce environmental impacts. Each scenario had a different combination of liquid beverages (SSBs, non-SSBs, bottled water) and 5 container types. Some scenarios also included tap water in reusable bottles from water filling stations.

The scenario that replaced all other beverages with tap water in reusable containers eliminated almost all environmental impacts, while scenarios that reduced SSBs but increased beverages other than tap water did not reduce environmental impacts nearly as much, or even increased them.

The SSBs sold on campus contained 42,649 kg of added sugar, and the average first year student at UCSB consumed SSBs with 60% of the recommended amount for *all* added sugar in the diet. Other research has shown that the high health care costs of SSB-related diseases have large environmental impacts.

According to the study director Professor David Cleveland, “Our study suggests that to optimize potential environmental benefits, HBIs need to emphasize reducing consumption of all commercial beverages while increasing the availability of tap water, which will also optimize health benefits”.

Some HBIs are aiming to improve environmental sustainability by promoting tap water, including the UC HBI. However, a major challenge to campus HBIs trying to do this are the pouring rights contracts that most colleges and universities have with Coca-Cola or PepsiCo. These contracts obligate the campus, including UC Santa Barbara and 8 other UC campuses, to collaborate with beverage corporations’ sale and promotion of SSBs and other beverages targeting students.

“We hope our research results and methods can be used by HBIs to optimize their environmental benefits in addition to their health benefits” Cleveland said, “as well as be a resource for campus groups working to end their pouring rights contracts”.

SOURCE: Meisterling, K., Vo, J., Garvey, K.A., Brown, H.E., Tumbleson, M.T., and Cleveland, D.A. 2022. Healthy beverage initiatives: A case study of scenarios for optimizing their environmental benefits on a university campus. *Cleaner and Responsible Production*. Open access article available on line: <https://doi.org/10.1016/j.clrc.2022.100049>.

CONTACT: David Cleveland, cleveland@ucsb.edu. +1 (805) 452-4619

>>END<<