

Eco-conscious healthcare products supply: Investigating the effects of fewer orders.

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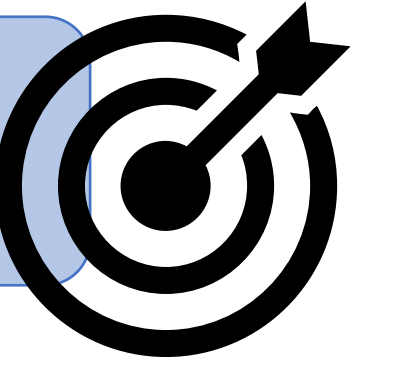
MARCH 2024
CONGRESS 28th N°2SPD-014

INTRODUCTION

France's healthcare sector contributes 8% of the country's carbon footprint, with 50% attributed to healthcare product supply (1). Our Grand Ouest University Hospital Center (UHC) in France works with several suppliers to identify and implement ways of optimizing logistics. Plasma-Derived Medicinal Products (PDMP) represent a significant portion of this product supply. An improvement project was initiated in early 2023 in our UHC to reduce the frequency of weekly orders to monthly orders.

OBJECTIVE

Evaluate the Environmental Impact (EI) of a six-month reduction in PDMP orders.



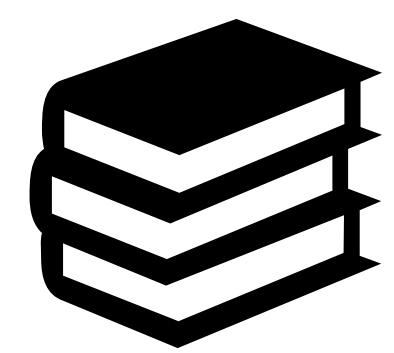
MATERIALS AND METHOD



A query of the number of all PDMP orders with Pharma[®] (Computer-engineering V5.9).



Empreinte[®] database of the French Environment and Energy Management Agency (ADEME).(2)
Results are in CO₂ equivalents (eq. CO₂).

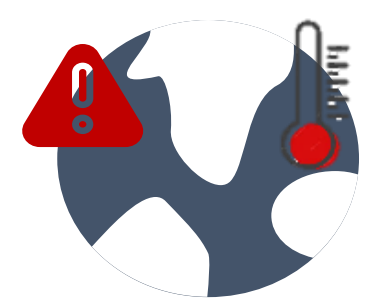
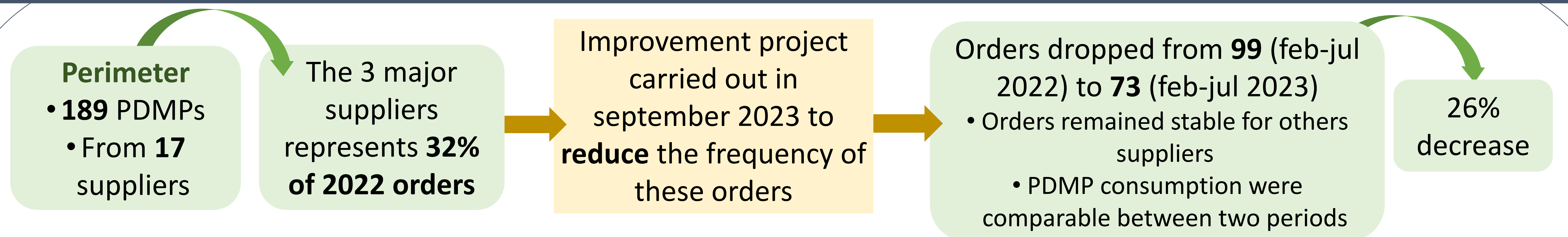


Suppliers' ability to communicate the EI of orders is compared to an estimate on literature data.



Comparison : February to July 2022 / 2023.

RESULTS



WHAT IS THE EI OF THIS REDUCTION?

? No data

On the supplier's side
According to bibliography

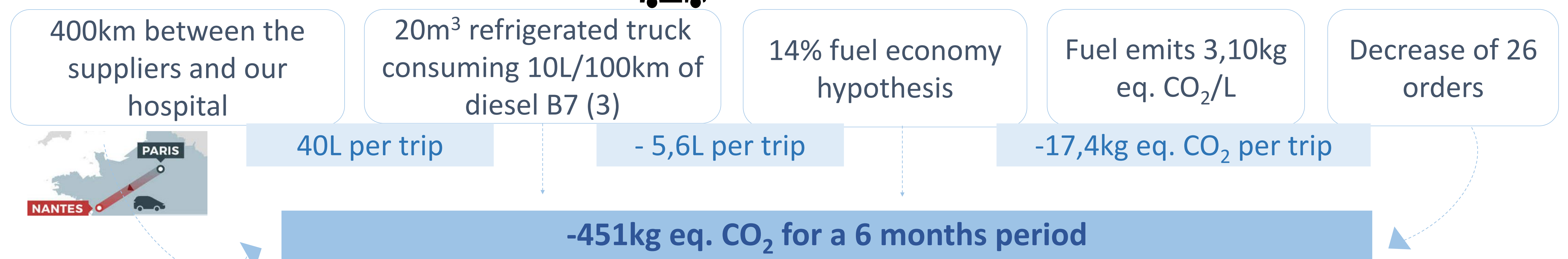


Transporting products in fully loaded vehicles is ecologically favorable



According to the Shift Project, a 20-30% truck load increase saves 14% to 21% fuel

Our hypothesis



Our hypothesis is build on a same number of PDMPs orders.

In practice, the same number of orders and receipts has not decreased as much as number of orders and receipts.

DISCUSSION

Reducing orders can optimize vehicle filling and lower delivery-related fuel consumption (4). Coordinating routes with other centers could further reduce EI. Larger orders require additional storage space, but it isn't a concern in our establishment. Fewer orders also ease logistics staff workload. However, tensions in healthcare supply can lead to sporadic receptions independent of our reduction policy, making an exact order-receipt match challenging.

References

- (1) The Shift Project. Décarboner la santé pour soigner durablement. Impact climatique du secteur de la Santé en France. Calculs 2023.
- (2) Base Empreinte. ADEME et République française.
- (3) Données du [Ministère de la Transition Ecologique et de la Cohésion des Territoires](#).
- (4) The Shift Project. Assurer le fret dans un monde fini. Rapport Mars 2022.

