

# WHEN A WORD COSTS THOUSAND EUROS

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## Background and Goals of study

“Making our planet great again” is one of the most important challenges of mankind. By their activities, French hospitals produce 700,000 tons of waste every year<sup>1</sup>, with direct environmental and financial impacts.

The aim of the study was to promote a culture of sustainable development in the operating room by : (i) assessing the effectiveness of the segregation between hazardous and non hazardous waste and (ii) determining the potential reasons for non-compliance to guidelines.



## Methods

- ➡ Audit in a French teaching-hospital
- ➡ For 24 hours in 2016, every waste bag of hazardous and non-hazardous waste was investigated.
- ➡ Estimation of the costs of adequate treatment and disposal of the biomedical waste produced by the operating rooms of this hospital (for 261 days, excluding weekends) knowing that waste treatment costs **0.75 €/kg for hazardous waste** and **0.15 €/kg for non-hazardous waste**.
- ➡ Comparison of this cost to the potential cost expected, regarding the WHO's recommendations<sup>2</sup> assessing that **only 15% of waste is hazardous**.
- ➡ Presentation of the results to nurse team to understand their misbehaviour regarding waste management.

## Results

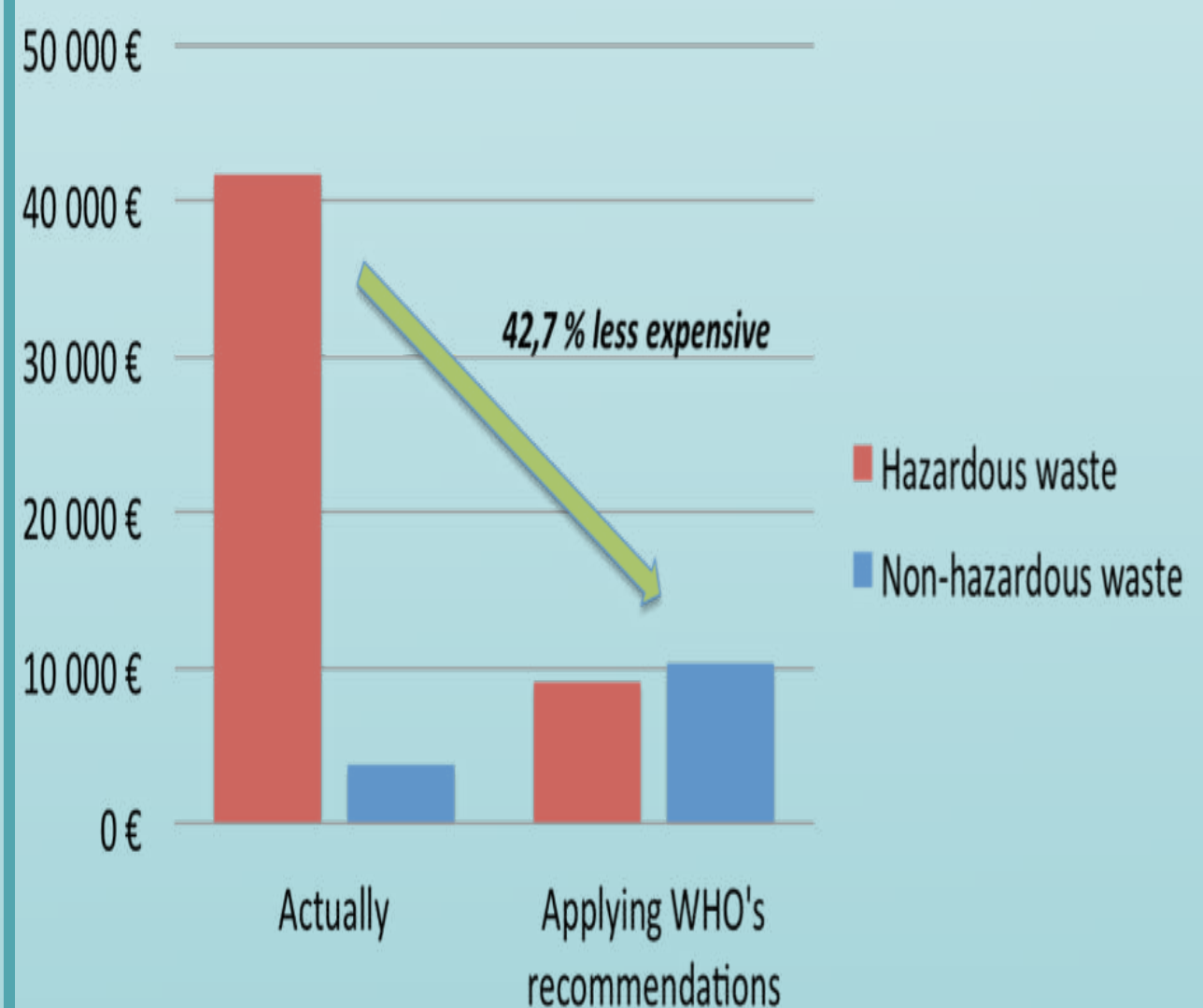
- ✓ Total production of waste in our center was **310 kg/24 hours** for 34 surgeries with : 213 kg in hazardous bags and 97 kg in non-hazardous bags, i.e. a **hazardous waste rate of 68.7%**.

**Potential costs savings : 26,075 € per year of surgical activities\***

\* Considering a 15% hazardous waste rate (WHO's recommendations)

- ✓ For most of the nurse team, **anything that touched the patient was considered as dirty, and thus hazardous**, because of what they have learnt during their initial formation. They justified this misbehaviour by the lack of updated information about hazardous waste segregation.

Waste management in the operating rooms : Potential costs savings



## Conclusion

Operating rooms are big waste producers. Improving healthcare providers' knowledge about its adequate management impact and its costs can be one of the clues for a greener and cost-saving operating room.

## Bibliography

1. Agence nationale d'appui à la performance, *Organisation de la gestion des déchets. Optimiser le traitement et réduire la signature environnementale. Retours d'expériences*, 2010.
2. World Health Organization, *Healthcare waste*, Fact Sheet n°23, november 2015, <http://www.who.int/mediacentre/factsheets/fs253/en/>