

## DISPOSAL OF EXPIRED MEDICATION

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### INTRODUCTION

The use of an appropriate method for disposal of expired medication is an important aspect from an environmental point of view due to the impact of active pharmaceutical ingredients and degradation products which may have different repercussions. In recent years, the presence of pharmaceuticals and their metabolites in groundwater has been recognized to impose health risks to the general public.<sup>1</sup>

### AIMS

To assess methods used by the public with respect to disposal of expired medication

### METHOD

- A questionnaire consisting of two sections, a demographic data section, and 3 closed-ended, multiple choice questions was developed.
- The questionnaire was validated by a panel consisting of 3 academic pharmacists, 2 community pharmacists, and 2 lay persons.
- The questionnaire was distributed via social media to the general public following the approval from the Faculty Research Ethics Committee.
- Statistical analysis was conducted using SPSS<sup>®</sup> Version 24.
- Participants were asked how they store medication, the room in which they are kept and how they dispose of expired medication.

### RESULTS

- A total of 354 participants answered the questionnaire.
- Forty-three percent of the participants were aged between 18-29 years, 81% being female.
- Forty percent had a post-secondary level of education and 32% resided in the southern harbour, followed by the northern harbour (31%).
- Sixty-five percent store medication in the original primary and secondary packaging.
- Half of the participants store their medication in the kitchen (50%), followed by the bathroom (26%).
- Expired medication is mainly disposed of with household refuse (52%) and 26% washed them down the drain (Figure 1).

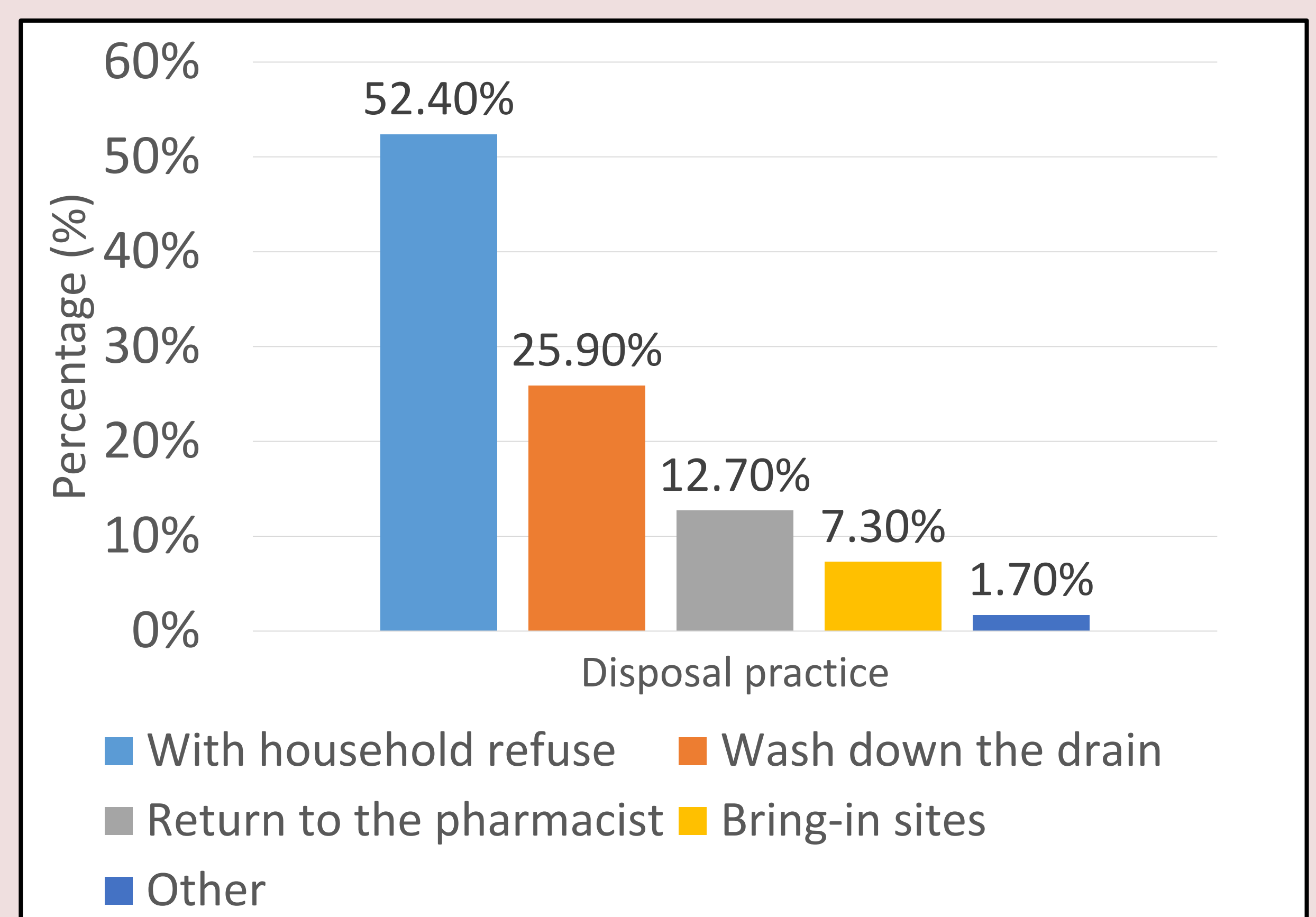


Figure 1: Medication disposal practices in Maltese households (N=354)

### CONCLUSION

An educational campaign is required to increase awareness about the correct disposal practices of expired medication. The majority of the public disposes of expired medication inappropriately by throwing them away with household general refuse, and washing them down the drain. The public can dispose of expired medication at civic amenity sites which are found at 6 different locations around Malta.<sup>2</sup> There is a need to increase these sites of disposal around Malta to promote the correct disposal of expired medications.

### REFERENCES

1. Seehusen DA and Edwards J. Patient practices and beliefs concerning disposal of medications. Journal of the American board of family medicine. 2006;19(6):542.
2. WasteServ Malta - Civic Amenity Sites [Internet]. Wasteservmalta.com. 2018 [cited 20 August 2018]. Available from: <https://www.wasteservmalta.com/casites>