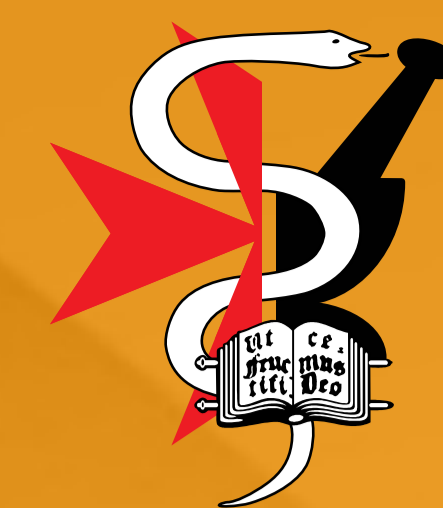


# COST REDUCTION RELATED TO TEMPERATURE CONTROL IN COMMUNITY PHARMACIES

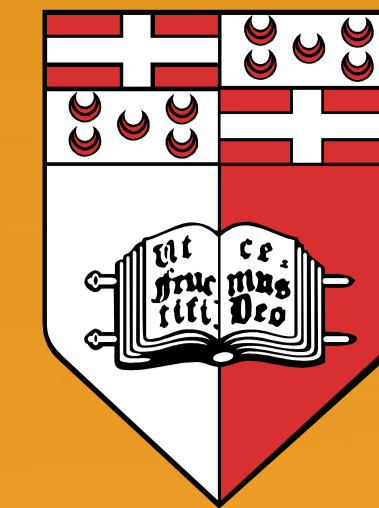
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## INTRODUCTION

Legal requirements stipulate that temperatures in a community pharmacy must not exceed 25°C<sup>1</sup>. This is exceeded during five months in the Maltese islands<sup>2</sup>, resulting in a large investment in energy expenditure<sup>3</sup>. Sustainability and financial viability are key in running any enterprise.

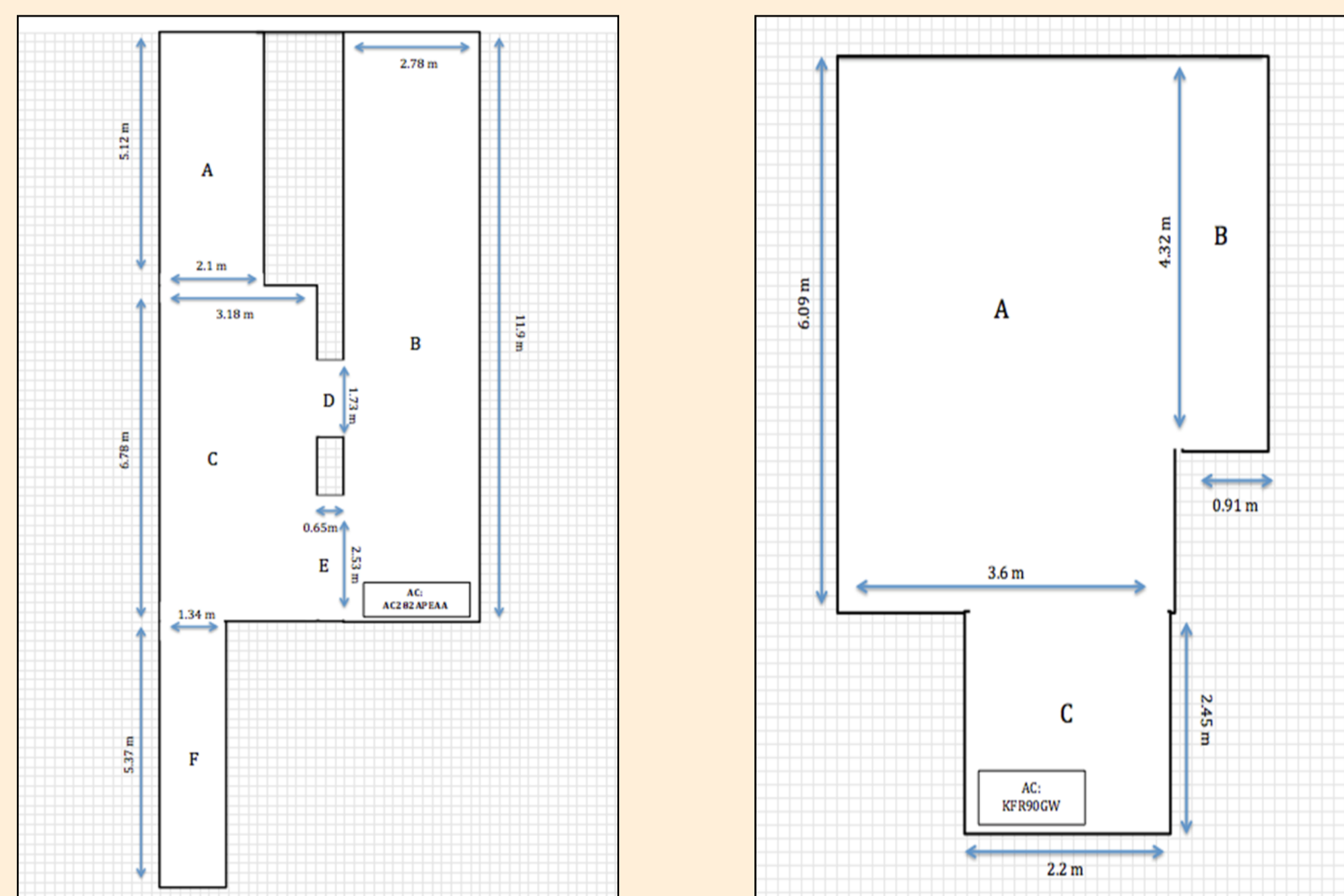
## AIMS

- To quantify the cost of abiding by statutory requirements.
- To investigate the disposition of pharmacy managers to introducing energy saving methods in their establishments.

## METHOD

### Phase 1

Two community pharmacies were selected via accessibility sampling. The pharmacy surface areas and the energy efficiency ratios of the air-conditioners installed were measured in order to calculate the power consumption needed in order to maintain suitable storage temperatures.



### Phase 2

Subsequently, a questionnaire was developed aiming to gather the opinion of managing pharmacists with regards to such costs. It consisted of five main themes:

- Compliance issues
- Patient education
- Quality agreement with wholesalers and distributors
- The physicians' role in preserving the cool chain
- The alternative option

The questionnaire devised was sent to 80 community pharmacy administrators from which 40 replied.

## RESULTS

The pharmacy surface areas were established at 75m<sup>2</sup> and 31m<sup>2</sup> requiring an annual €3,294.50 and €1,880 to cool respectively. This represents an average of 66% of the total cost of utilities and 8.2% of the total operating expenses of the pharmacies.

Survey responses demonstrated significant interest (p-value < 0.05) in reducing such costs. Suggested energy saving methods included:

- Installing solar panelling or photovoltaics in pharmacies with access to a roof.
- Installing air-curtains with main entrances.
- Making use of higher efficiency air-conditioners.
- Preventing heat penetration by means of double glazing and solar screens on the exterior of doors and windows.

Graph Comparing Cost of Temperature Maintenance to Total Energy Expenditure

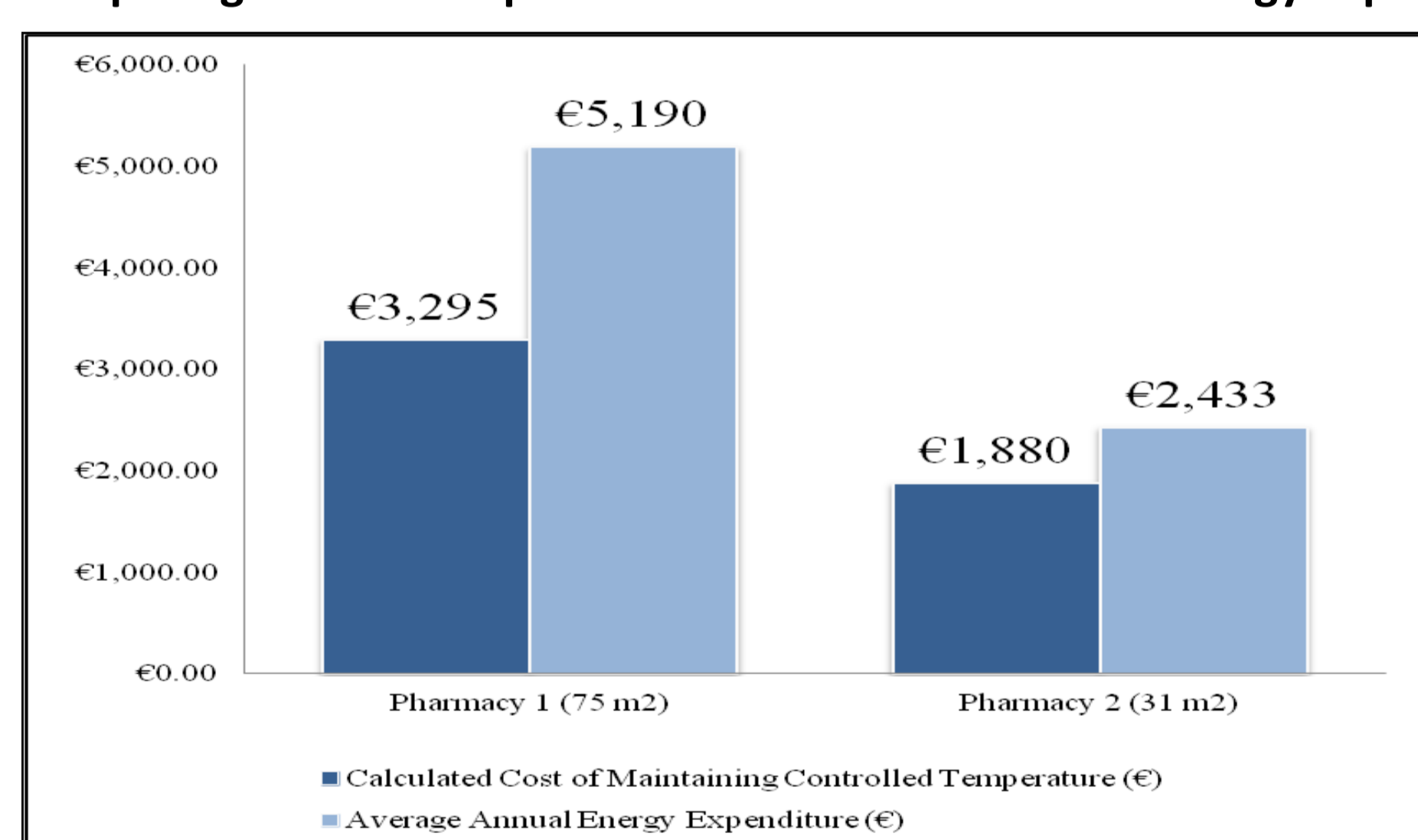
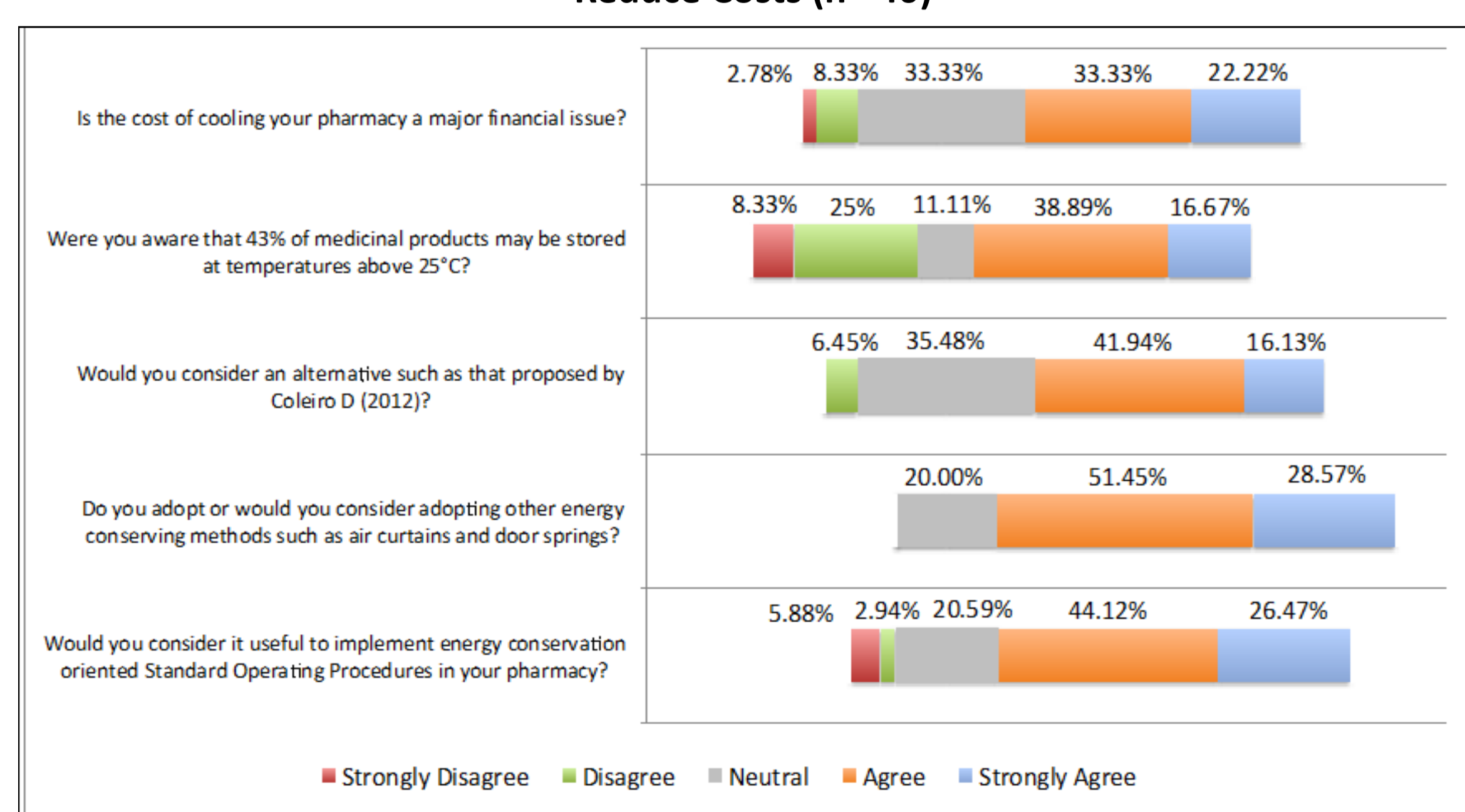


Chart Displaying Managing Pharmacists' Opinion on Making Changes in an Effort to Reduce Costs (n= 40)



## CONCLUSION

The cost of cooling a community pharmacy resulted in being a notable financial issue for proprietors. Further study should be centred on the empirical testing of a set of energy efficient methods and the effects of their implementation to resolve this recognised issue.

### References

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