## storage and wastage of drug products in Jordanian households: a cross‐sectional survey

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#### Objective

Appropriate household storage and use of drug products can reduce drug wastage and unnecessary hazards. We aimed to quantify the amounts and types of medications that were stored in Jordanian households and the extent of drug wastage in terms of the amount and cost of these medications.

#### Methods

The setting was households in Amman, Jordan. This was a cross-sectional survey study using a pre-piloted questionnaire. Family members were interviewed in person about use of drug products, and where drug products were stored. The main outcomes were types, storage methods, cost and quantities of drug products in every household.

#### Key findings

Two hundred and forty-three households were approached, out of which 219 agreed to participate. A total of 2393 (mean 10.9, SD 5.2) drug products were recorded from the 219 households surveyed. A significant positive correlation was noted between the number of drug products in a household and family size (r = 0.19, P < 0.01), the level of the mother's education (r = 0.24, P < 0.01), the level of the father's education (r = 0.28, P < 0.01) and income (r = 0.14, P  = 0.034). Eighty nine (40.6%) households had at least one child younger than 6 years of age, and 1122 (46.9%) drug products were stored in unsafe places in the houses, within the reach of children. More than a quarter of drug products (1509, 27.2%) were not in their original containers, 360 (15%) were unused since dispensing, 261 (10.9%) had expired and 44 (1.8%) had no clear expiry date. We estimated that the cost of drug wastage in the 219 households was US$5414. Paracetamol (202, 8.4%), diclofenac (98, 4.1%) and amoxicillin (79, 3.3%) were the most commonly reportedly stored individual drugs.

#### Conclusion

Drug products are stored in large quantities in Jordanian households. Unsafe storage practices have the potential to pose safety hazards, especially to children.