Capability of refrigerators to control the cold chain temperature for vaccine storage / Cha-oncin Sooksriwong, Somying Pumtong, Watcharinee Kerdpiam, Farsai Chanjaruporn

Cha-oncin Sooksriwong, author

Abstrak

Proper refrigeration for vaccine storage at the recommended temperature by manufacturers is vital. Most of vaccines should be kept between +2°C and +8°C. This study aimed to compare the capability of different attributes of refrigerators (types, purposes and years of utilization of refrigerator) in controlling temperature for vaccine storage. Data were collected from 155 health care facilities in Bangkok, Thailand. Computerized temperature data loggers, LogTag TRIX-8, were used to continuously monitor temperature. The result shows that different types of refrigerators had different capability, and the pharmaceutical refrigerator had the highest mean of capability at 96.61%; better than household two-door and one-door refrigerator, while the capability of household two-door and one-door refrigerator was not statistically different. The purpose and years of utilization group did not relate to the capability to control temperature. In conclusion, a pharmaceutical refrigerator is ideally recommended if possible. A household refrigerator with single purpose is acceptably used for vaccine storage. Regular maintenance and calibration will keep those refrigerators for sustainable capability in controlling the temperature. The findings can be useful as guidance for health care staff in decision making to choose the refrigerator as well as maintain it for vaccine storage.