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# Disaster-driven evacuation and medication: A systematic literature review

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## BRINGING MEDICATION IS IMPORTANT

- Chronic diseases are an increasing burden all over the world.
- After an extreme event, interruption of care may cause:
  - Exacerbation of chronic conditions
  - Acute secondary conditions
  - Withdrawal syndrome
- Bringing medication at the time of evacuation is a simple and effective way to reduce emergency-related health risks.

## CASE STUDY : 2011 JAPAN EARTHQUAKE

- Severe damage to hospitals
  - Disruption of infrastructure
  - High prevalence of chronic disease due to rapidly ageing population
- Many “drug refugees”



Damaged hospitals



Prescription needs



Lost transportation

## METHODS

### Databases

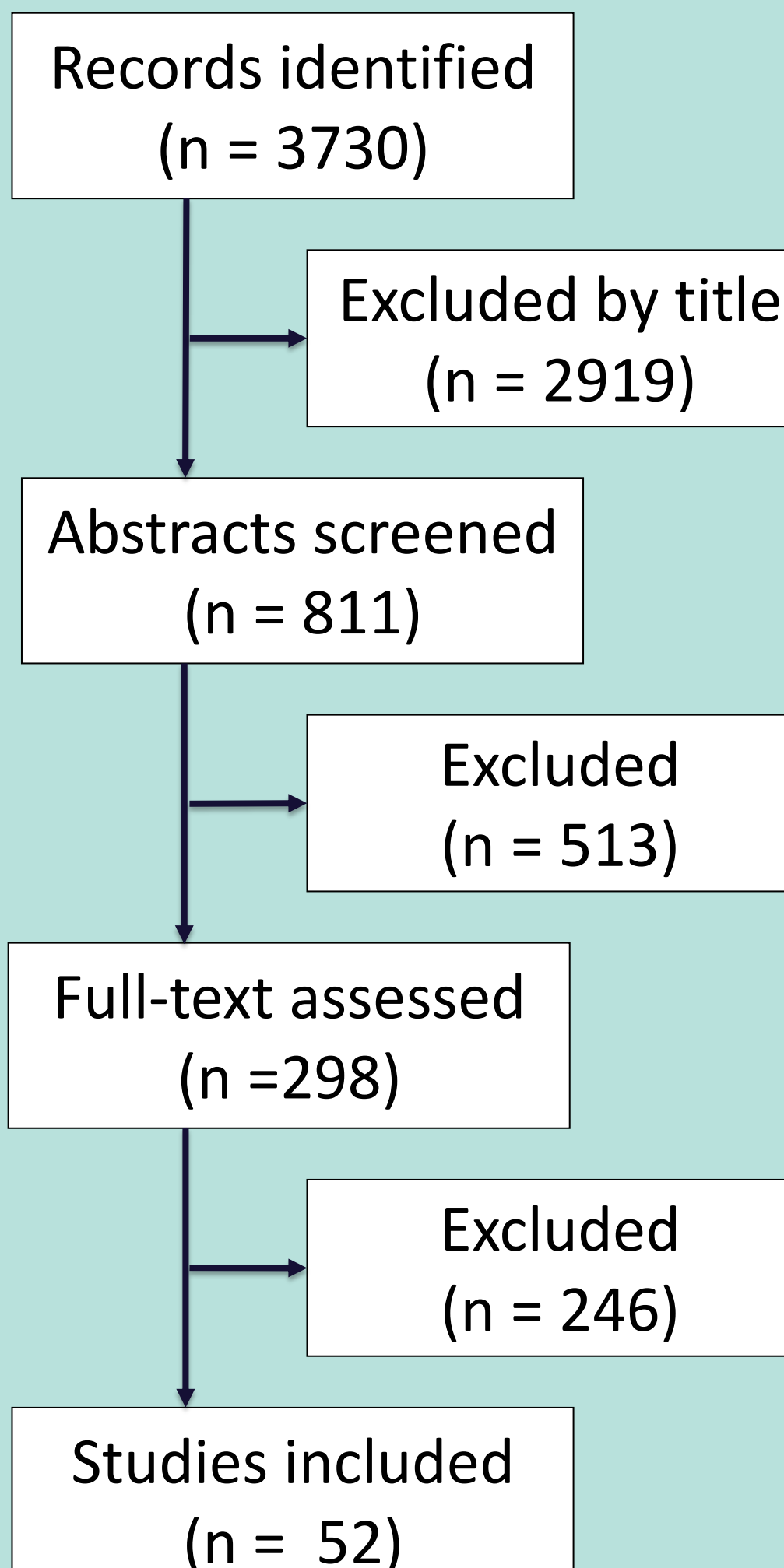
Medline, Embase, PsycINFO, Maternity and Infant Care, HMIC

### Inclusion criteria

- Evacuees' action of bringing prescription medications with them
- Burden of prescription refills on relief activities after disasters
- Disruption of medications due to medication loss



Identification



Screening

Included

## RESULTS

### Problems

- Many people (-48%) arrive at shelters without medication
- Medication refill is an **immediate** health need
- Prescription is an increasing burden of medical relief activities (-28%)
- Preparedness is not fully achieved (53-90%)
- There are risk groups who are likely to lose their medications (e.g. marginalised people)



Many people evacuate without medications



Medication loss easily cause health deterioration at shelters.

### Solutions

- Have a personal stockpile (1week-1month)
- Carry the personal stockpile **at all times**
  - Make an emergency pack
  - Pack **full range of** medications and medical device

### ‘Medications’ are not only ‘pills’.

#### Routine medications

Needles, gluco-metres

#### Device for specific care

Nebulizer machines

CPAP machines

Oxygen cylinders

#### Device for daily life

Glasses

Hearing aids

Canes

Dentures

Sanitary products

#### Over-the-counter drugs

Painkillers

Anti-histamine agents



## RECOMMENDATIONS

Every community member has a role to prevent medication losses.

### Health Professionals

Education  
Individualised emergency plan  
Medication lists & stockpile

### Patients

**Bring medication**

Evidence

Researchers

Policy makers

## CONCLUSIONS

- Bringing medication is the key to:
  - Continuity of care
  - Emergency risk reduction for health
- Preparedness actions include:
  - Having a stockpile
  - Making an emergency kit
  - List of a full range of items
  - Periodical review of emergency plans
- All the stakeholders should be involved
- Further research should:
  - Assess health impact of medication loss
  - Evaluate programs for preparedness
  - Identify vulnerable population

## ACKNOWLEDGEMENTS

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### KEY READINGS

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