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A systematic review was conducted of the core literature published between January 2000 and 2011. The search was limited to peer-reviewed articles written in English. Papers were assessed using a quality appraisal tool. Content analysis identified the disaster management components discussed in the reviewed papers.

### Results

Table 1 summarises how many papers address the WHO disaster management components.

<table>
<thead>
<tr>
<th>Component</th>
<th>Number of Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination</td>
<td>7</td>
</tr>
<tr>
<td>Resource organisation</td>
<td>17</td>
</tr>
<tr>
<td>Information management</td>
<td>20</td>
</tr>
<tr>
<td>Public health</td>
<td>16</td>
</tr>
<tr>
<td>Public participation</td>
<td>19</td>
</tr>
<tr>
<td>Education</td>
<td>16</td>
</tr>
<tr>
<td>Safety and security</td>
<td>10</td>
</tr>
<tr>
<td>Tobacco control</td>
<td>8</td>
</tr>
<tr>
<td>Alcohol control</td>
<td>8</td>
</tr>
<tr>
<td>Drug abuse</td>
<td>3</td>
</tr>
<tr>
<td>Violence</td>
<td>5</td>
</tr>
<tr>
<td>Health sector plan</td>
<td>5</td>
</tr>
<tr>
<td>Economic and social development</td>
<td>1</td>
</tr>
<tr>
<td>Food and water</td>
<td>1</td>
</tr>
</tbody>
</table>

### Discussion

The reviewed literature embodied a vast amount of information. A health systems approach to disaster management has not yet been adopted and there are no evaluations of the approach.

- A quality appraisal checklist was completed for each paper. Harden's quality appraisal tool was used.
- Data collection process.
- Thus, inclusion criteria were broad, including reports of 'round-table events', evaluations of simulation exercises, and disaster case studies.
- Retained records were excluded if the paper used the terms 'disaster management' in the context of a specific event.
- Papers were assessed independently by two reviewers.
- Agreement was high, with only minor discrepancies which were considered further against objectives of the review, resulting in establishing a final list.
- A final list of 37 papers was included, with a further 15 papers published in the world before 2000 used to complement the review.

### Systematic Review and Meta-Analyses (PRISMA) Statement

This systematic review has been developed and written in light of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement. The initial piloting involved analysing 20 varied papers and confirmed the method of data collection and analysis. The search was limited to the 'Human' category. A second reviewer independently assessed the selection of documents according to the eligibility criteria. This resulted in two reviewers independently assessing a total of 370 papers.

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- A second reviewer independently assessed the eligibility criteria of the papers.
- Agreement was high, with only minor discrepancies which were considered further against objectives of the review, resulting in establishing a final list.

### Aims & Scope

The paper aims to progress policy and practice. Evaluation methods need to be developed and conducted. Issues of practical implementation must be addressed.

- The disconnected nature of health disaster management in the USA means that there is considerable variation in the way that health systems respond to disasters.
- The nature of disasters that have occurred in the USA from 2000 to 2011 establishes a quality standard on the otherwise diverse formats of the reviewed publications.
- The 64th World Health Assembly in May 2011 adopted a resolution on 'strengthening national health emergency and disaster management capacities and resilience of health systems' to build resilience in the face of all-hazards disasters.
- The current lack of data to support the implementation of the resolution.
- These collated results identify the lessons for the 'health sector plan'. The Summary Table of Reviewed Papers (Appendix 2) identifies which programmes, such as health professional training programmes or surge capacity development within the health sector plan, might be most suitable for public health literature (see Appendix 1). Appraisal details were recorded along with the Data collection process.

### Collaboration for Leadership in Applied Health Research & Care (CLAHRC) Scheme, the NIHR Biomedical Panel 3 – Key Messages

- The paper describes the importance of a health systems approach to disaster management, and providing evidence on disaster management has not yet been adopted and there are no evaluations of the approach.
- The nature of disasters that have occurred in the USA from 2000 to 2011 establishes a quality standard on the otherwise diverse formats of the reviewed publications.
- The 64th World Health Assembly in May 2011 adopted a resolution on 'strengthening national health emergency and disaster management capacities and resilience of health systems' to build resilience in the face of all-hazards disasters.
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### DISCUSSION

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