Governance and Difference: lessons from northern Australia

Building a Heat Health Management Network - Institutional Capacity and Partnerships

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Heat Stress Research Partnership
How heat ‘matters’ differently in northern Australia

**Materiality of extreme heat:** more than just ‘T’emperature – considering humidity and other factors

**Temporality of extreme heat:** occlusion of ‘chronic heat’ exposure
Differences in population: for whom is heat a problem?

- When, where and for whom is heat dangerous?
  - Morbidity and mortality discourse - focussed on the very young and elderly
  - Yet the ‘healthy’ population is also affected - major impacts on health and safety, wellbeing and productivity
  - Annual productivity loss from heat stress in Australia: $6.9 billion (Zander et al. 2015)
How and Why Heat Matters

Annu. Rev. Public Health 37:97–112
<table>
<thead>
<tr>
<th>Case Study</th>
<th>Location</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Grid Maintenance</td>
<td>Darwin Region</td>
<td>2015</td>
</tr>
<tr>
<td>Volunteer Fire Fighters</td>
<td>Outer Darwin</td>
<td>2015</td>
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<tr>
<td>Pharmacists and Mental Health Professionals</td>
<td>Darwin</td>
<td>2016</td>
</tr>
<tr>
<td>Open Cut Mine-Site</td>
<td>Monsoon Tropics</td>
<td>2017</td>
</tr>
</tbody>
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Interviews

(Video) Ethnographic Observation, Site 'Walk-throughs'

Environmental Symptoms Questionnaire; Activity Survey; Medical incident analysis

Physiological monitoring: Respiratory Rate; Heart Rate; Core Temperature; Urine Specific Gravity

Environmental Monitoring & Thermal Imaging

Multi- and Trans-disciplinary Methods
Outdoor work in Darwin: survival of the fittest practice?

‘Heat’ and heat stress are dynamically co-produced in practices of work by the articulation of elements such as:

**Materialities**: environmental conditions, tools, physiology - when, where and with/in/by what work is done

**Meanings**: knowledges and values - operational objectives, logistics, costs, contracts, public relations, workplace culture

**Competences**: physical skills and embodied knowledge – exertion required for a task, efficiency of movement, sensory/symptom awareness

‘Working the weather’ or ‘weathering work’? (Oppermann et al., 2018)
Everyday adaptation

The *right* knowledge:
- humid heat and chronic exposure
- cooling, exposure and exertion (as well as hydration)

Not ‘ceasing work’ but ‘working *smart*’, through improved practices, e.g.
- rotation - staff and roles
- sequencing and scheduling jobs
- seasonal planning
- mechanical aid/replacement and material supports
- cultural change and awareness

Political will and funding...
Thank you

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