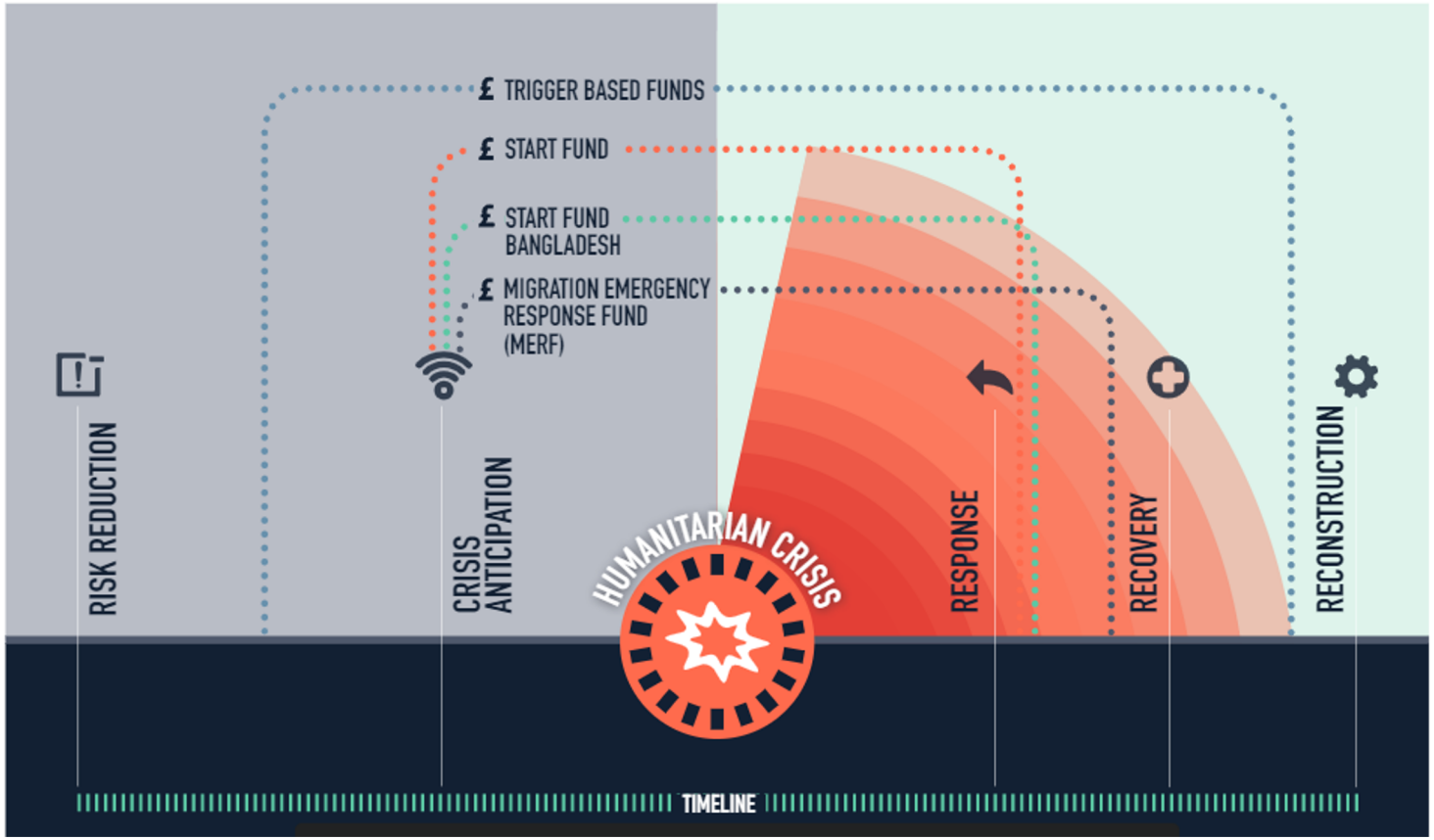
Managing extreme heat Pakistan

Forecast-based action in Karachi, and its impact on Karachi residents

START NETWORK

PAKISTAN

DISASTER RISK FINANCING (DRF)



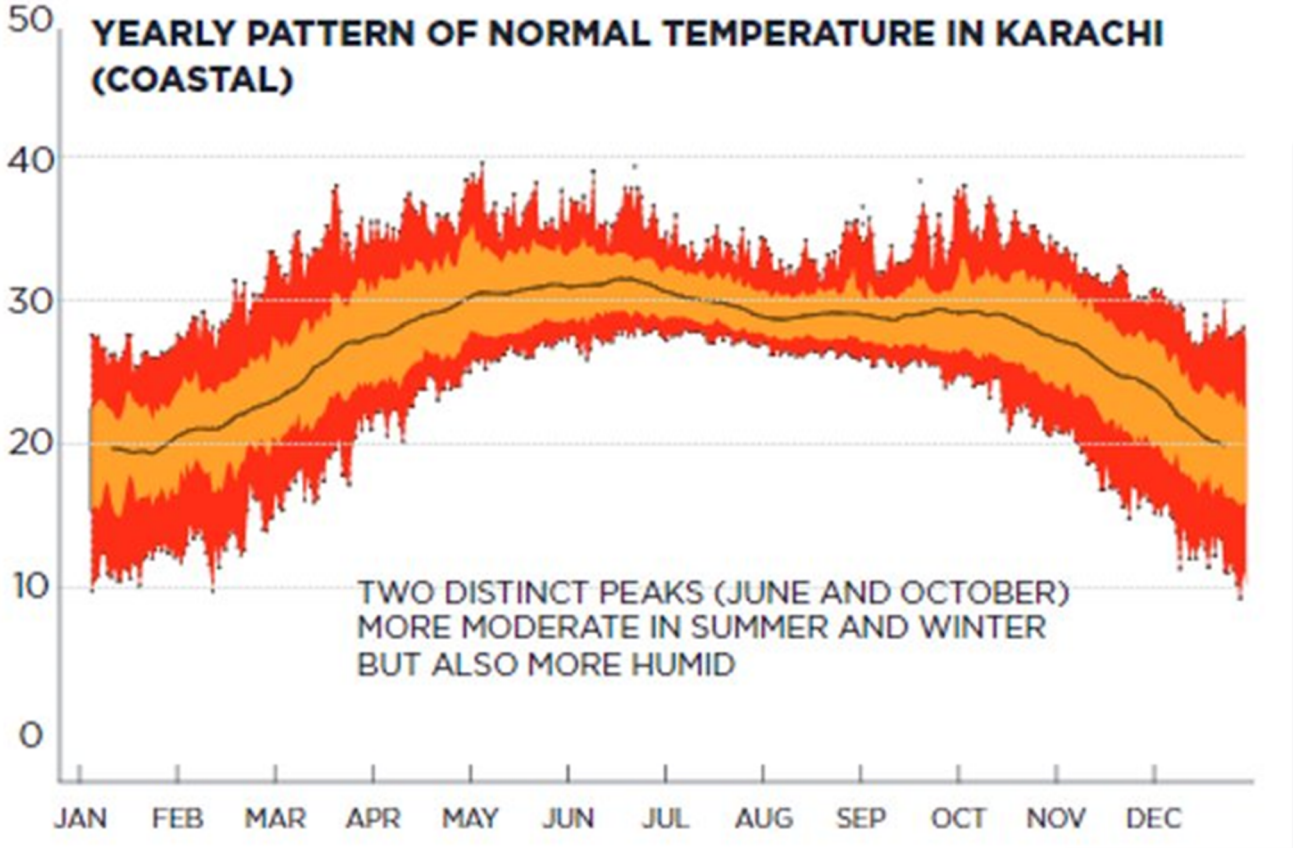
IN THEORY (recap for many of you!)

DRF has 3 pillars:

1. **Quantifying risk (& setting triggers)**
2. **Pre-planning activity**
3. **Pre-positioning financing**

The aim is to move from *responding* to disasters, to *managing* risks before they turn into crises.

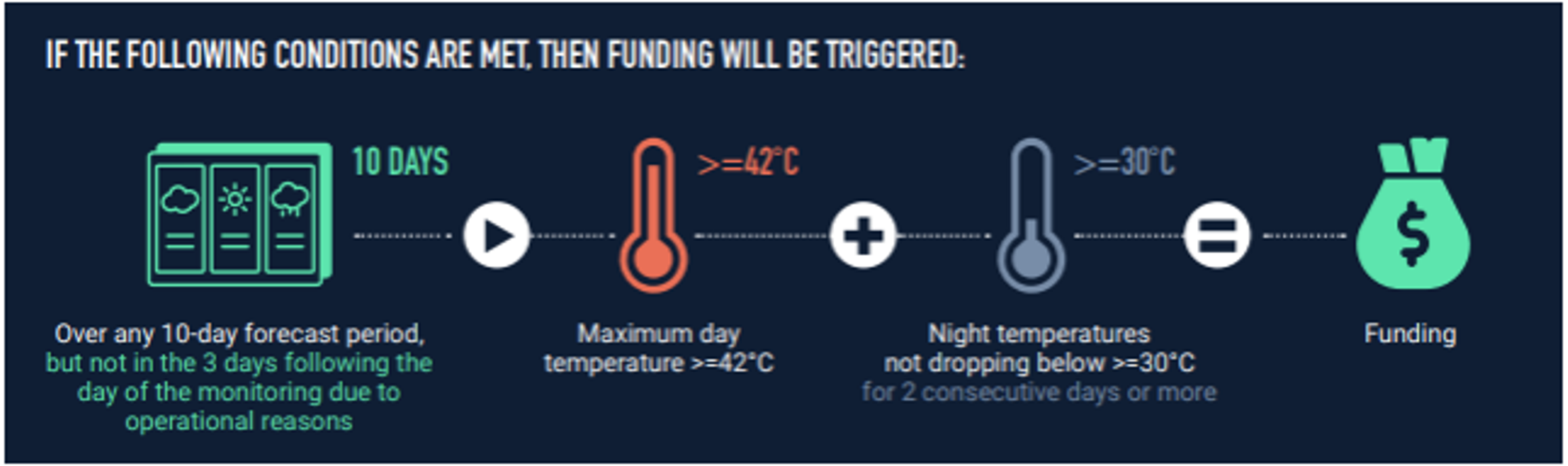
Timeline for 2020 model: May and June



Black line shows the most common (median) temperature for the time of year, orange zone is the normal variation around that and red zone is a more extreme variation.
Note that this is an average over a region, so individual weather stations (especially in urban areas) will record more extreme temperatures.

- The hottest part of the year is the heat season from March 31st to October 31st.
- Heatwaves are common in May and June and should end with the monsoon rains in July.
- Impacts of heatwave can be both direct and indirect.

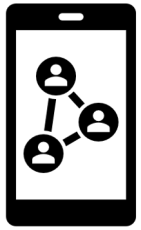
Threshold 1: Commissioner Office Karachi



Temperatures should be taken from the 10-day meteorogram for Karachi:
http://www.pmd.gov.pk/meteorogram/sindh.php?district=Karachi&division=Karachi

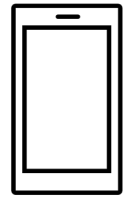
Heatwave actions:

Preventative heatwave messaging disseminated via FM radio



Preventative heatwave messaging shared on social media

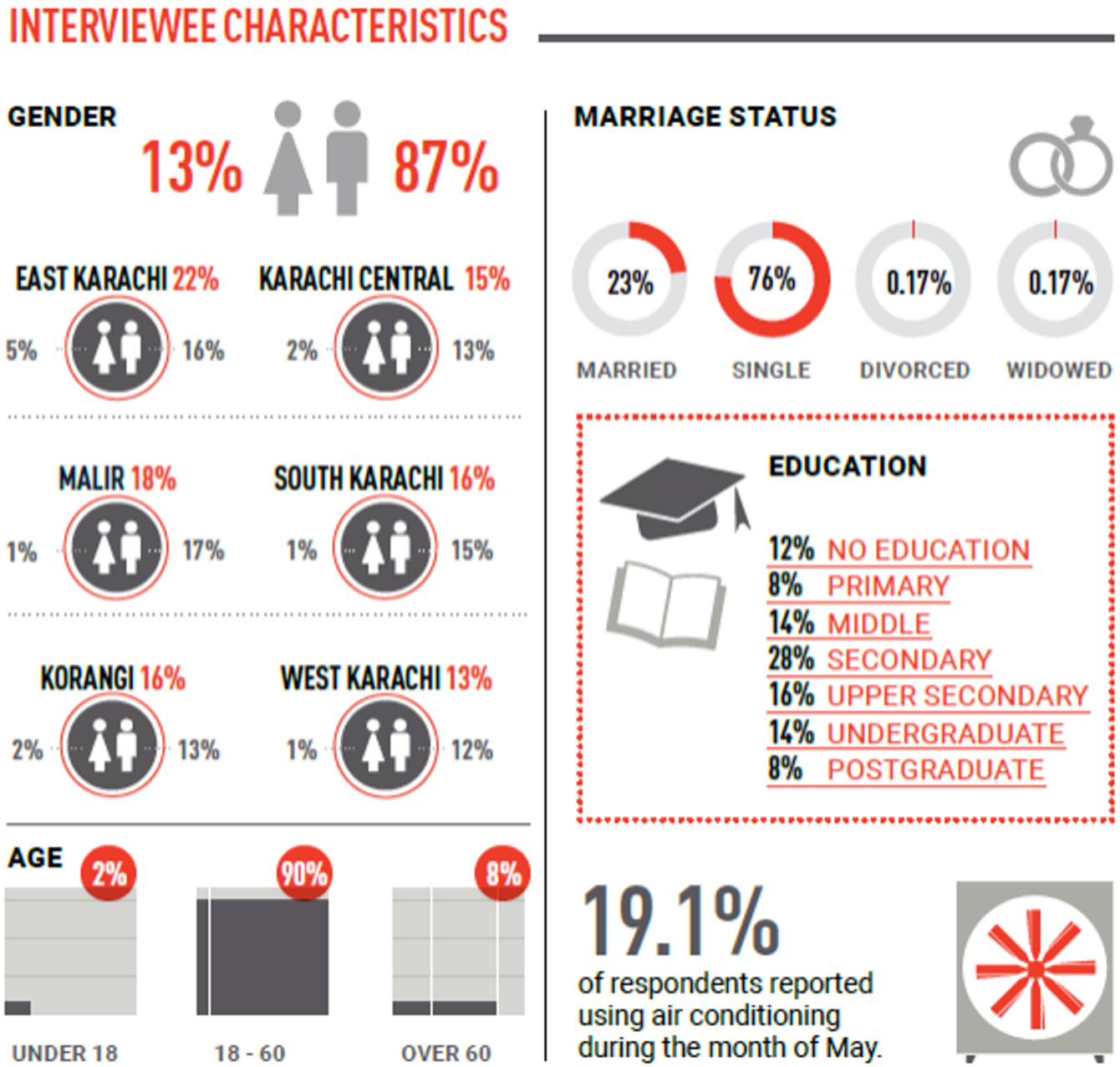
Provision of 70 umbrella shades with heatwave messaging distributed to police authorities



Preventative SMS messaging sent to target populations (50,000 SMS blast per day)

Research questions:

1) Which channels are most effective for transmitting heatwave messages?
2) Have we impacted knowledge and practice of participants related to heatwave?
3) What are people’s attitudes to receiving further messages?
4) Are people reporting symptoms due to extreme heat? If so, are any demographic groups more likely to report experiencing symptoms?



601 respondents were randomly sampled from the list of recipients of the SMS messages

How did people receive

60%

OF PEOPLE SURVEYED HAD RECEIVED HEATWAVE MESSAGES THROUGH SOCIAL MEDIA

100%

OF THESE WERE THROUGH FACEBOOK

COMPARED TO

19%

THROUGH FM RADIO

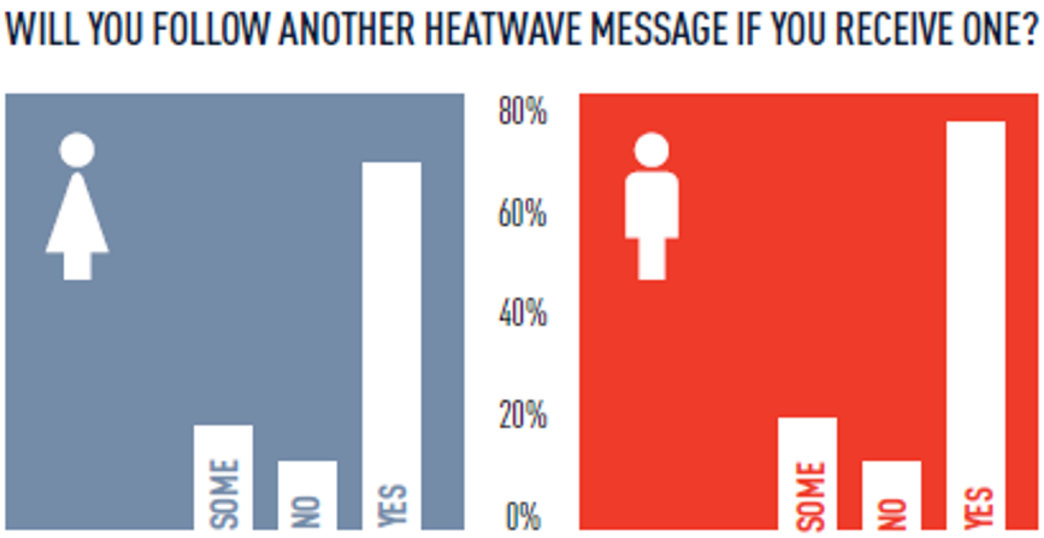
30%

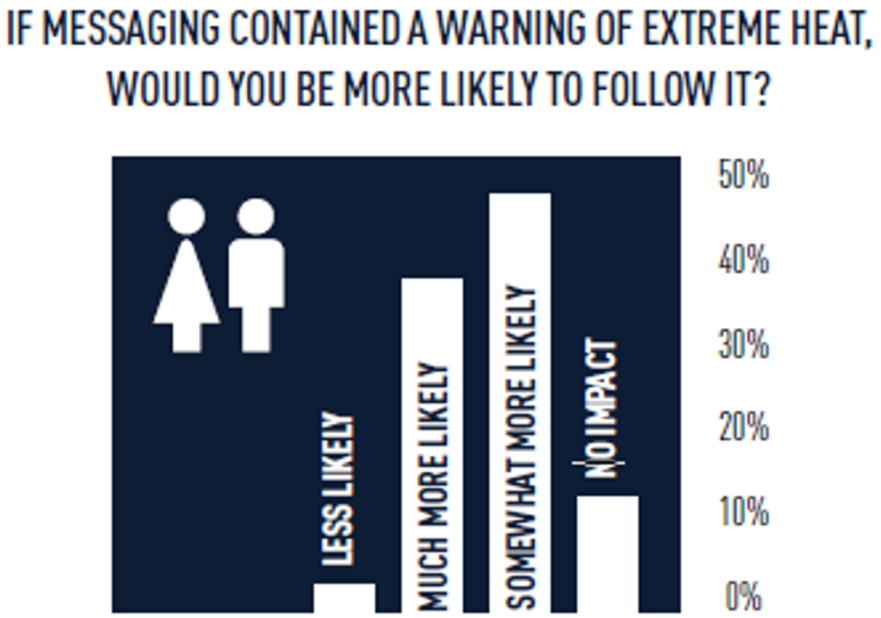
THROUGH TELEVISION

16%

THROUGH A FRIEND.

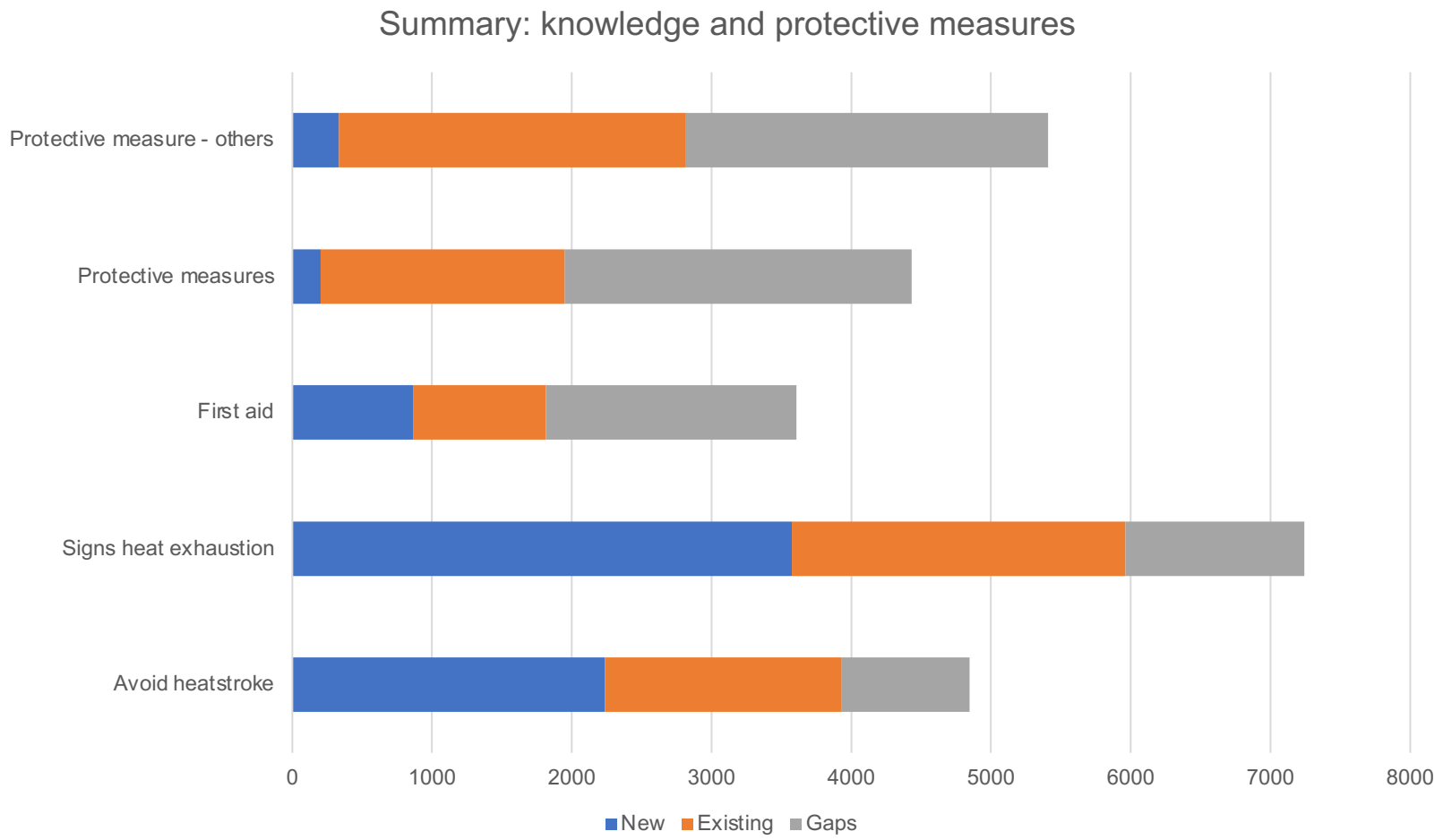
What are attitudes to receiving





- 90% of respondents reported that they will follow all or some heatwave instructions if they receive more
- 84% of study participants would be either ‘somewhat’ or ‘much more’ likely to follow heat related advice if it also contained a warning of extreme heat
- Those said they will not follow further instructions fell almost equally into two camps, the first citing time or resources constraints and the second saying they might forget or needing additional messaging

Changes in knowledge and practice following the campaign



Blue = <u>new</u> knowledge or protective measures, since messaging campaign

Orange = <u>existing</u> knowledge or practice respondents already had

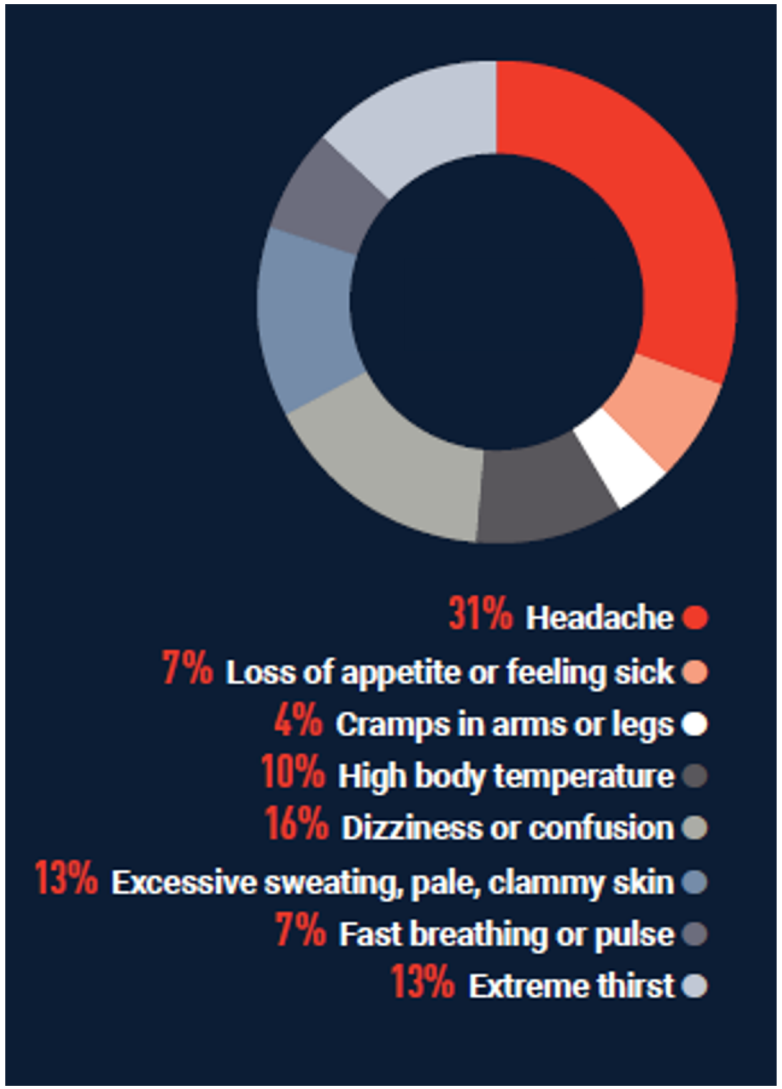
Grey = gaps

Are people reporting symptoms due to extreme heat? If so, who?

- 7% of survey respondents reported suffering symptoms due to extreme heat since the messages. 8.3% of the sample said they had experienced heatstroke in previous years

- All demographic variables were tested to see if they appeared to impact likelihood of reporting symptoms due to extreme heat; no connections were found

- Average knowledge and practice scores were compared between the those with and without symptoms. There was no significant difference in knowledge between respondents who did an did not report symptoms of extreme heat. Those with higher scores for practice were more likely to report experiencing symptoms.



Further questions

1. How to access more reliable data on heatwaves symptoms and harm?

1. How to address gendered differences in access to heatwave information?

1. How to ensure people who pick up messages share them?

1. How to bridge gap between knowledge and practice – what more can we do?