

Exploring the impact of weather variations , sporting events and health media on patient demand in primary care

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Why?

GP surgeries are under ever increasing pressure.

The Future...

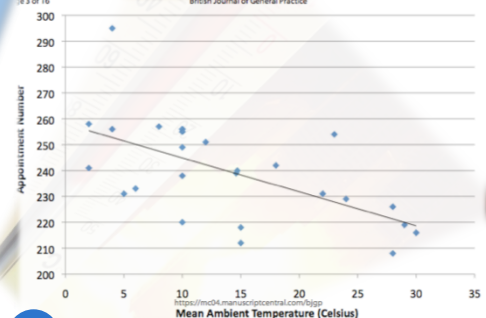
- Predictive model for patient demand formulated
- Accurate to $\pm 7\%$
- Thus allowing the practice to deploy resources based on predicted demand, maximising efficiency
- We plan to implement this tool in other practices. If interested please pick up a flyer below

Understanding the factors which control patient demand will yield a number of benefits

- Optimize staff work patterns
- Better deployment of locums
- Sustainability planning

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Strong linear relationship between demand and temperature $p < 0.001$



Key Conclusions

Solar energy, temperature & weather category had statistically significant linear relationships with demand

The only sporting event which resulted in significant variations in demand was the World Cup.

Certain health media topics incurred significant variations in demand

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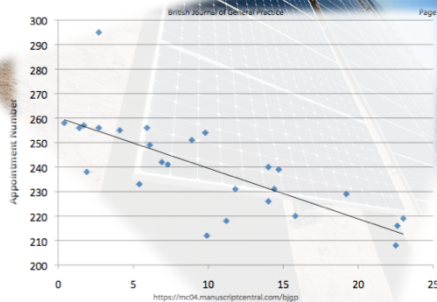
World Cup matches resulted in significant declines in patient demand.

No other sporting event including cricket, cycling or rugby demonstrated a similar pattern

England match: -16%
Non-England: -5%

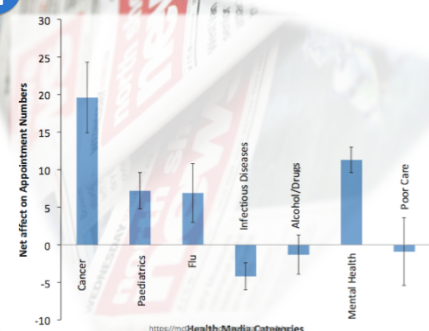
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Strong linear relationship between demand and solar energy $p < 0.001$

Pleasant settled weather (group 0-1) resulted in pronounced reductions in demand ($p < 0.05$) with the inverse true of unpleasant wet weather (group 4-5)



News reports on Cancer result in 9% increase in demand

Snowy weather bucked the trend: -16%
?Due to increased difficulty getting to the surgery

Weather Category	Group	Pictogram
Clear	0	
Heavy rain (>4mm/12 hours)	5	
Light rain (<4mm/12 hours)	4	
Overcast	3	
Cloudy	2	
Breezy intervals	1	
Sunny day	0	



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