Imperial College London

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The Impact of Weather and College Holidays on Attendance at HIV Youth Services

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Background: Extremes of temperature and adverse weather conditions impact on ambulance call outs, attendance to emergency departments, GUM and paediatric clinics yet there is no published data on the impact of utilisation of youth services. We investigated the impact of temperature, precipitation and college holidays on rates of youth HIV out patient attendance.

Methods: Retrospective analysis of attendance at a multidisciplinary youth friendly HIV service by electronic booking review between July 2016 and June 2018. The clinic runs once weekly from 2-6pm combining booked appointments with a walk in service. Baseline demographics, daily midday London temperature (°C) and daytime precipitation (mm) from Met Office statistics (www.metoffice.gov.uk) were recorded with attendance rates in Excel. Holiday periods were defined as 10th December to 10th Jan, April, and from July through to September. Data was analysed using GraphPad Prism and unpaired t test used to compare medians and linear regression where appropriate.

Results: At study end 191 youth were registered, median age 22.9 years (IQR 20-25, range 16-33), 56% female, 81% Black African, 93% perinatal HIV acquisition and 37% were in full/part time education. 80% were on suppressive antiretroviral therapy (viral load <200 c/ml). Median attendance per clinic of 11 young adults (IQR 9-13, range 5 to 21), male : female 5 : 6.
There was a significant increase in attendance in college holidays compared to term time; 13 (5-21) vs 10 (6-18), p <0.0001 (figure 3). There was no significant difference in attendance rates by temperature (p=0.28) or precipitation (p=0.34) (figures 1, 2).

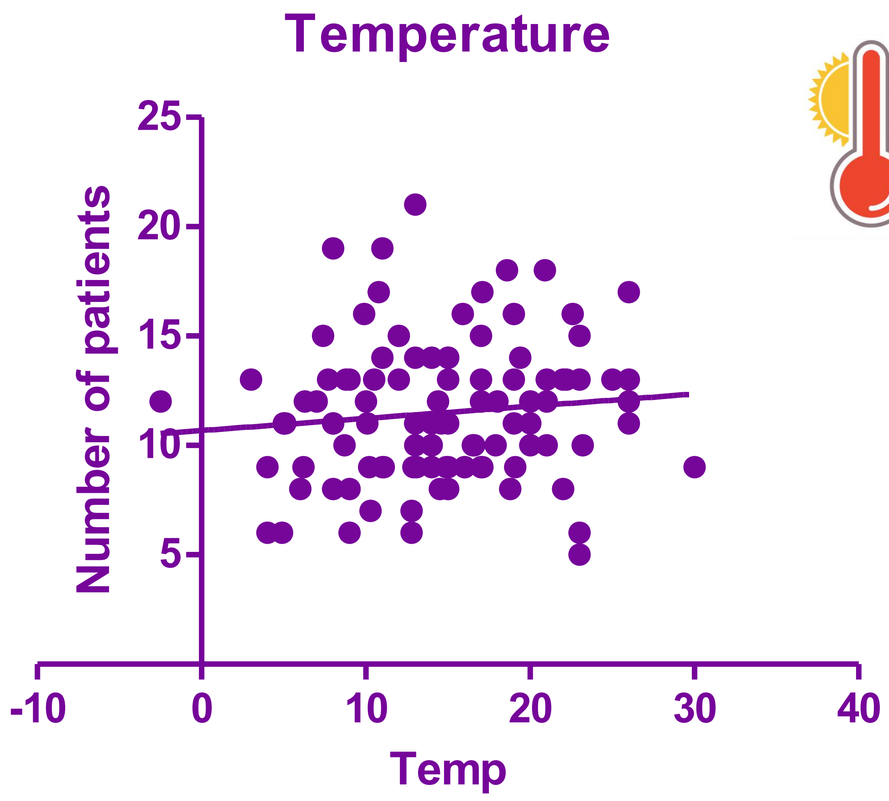


Figure 1: Temperature against attendance

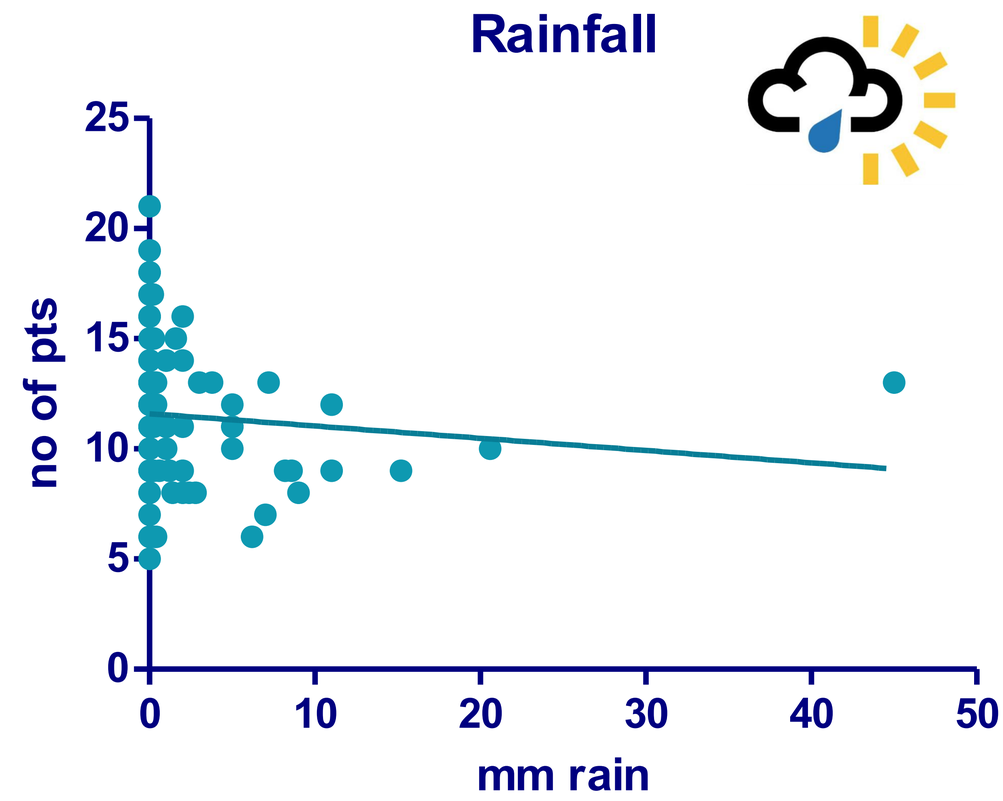


Figure 2: Precipitation against attendance

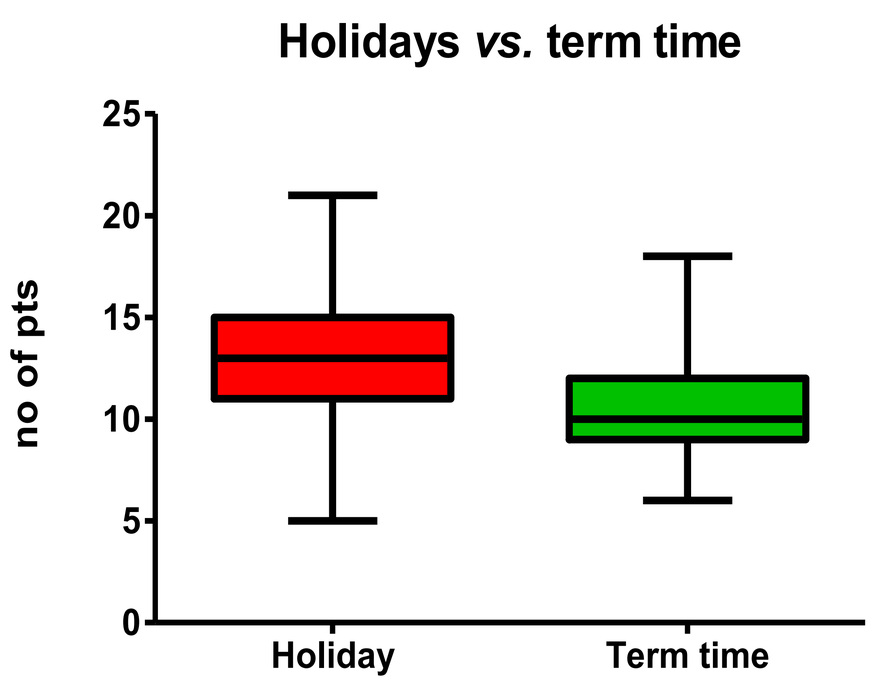
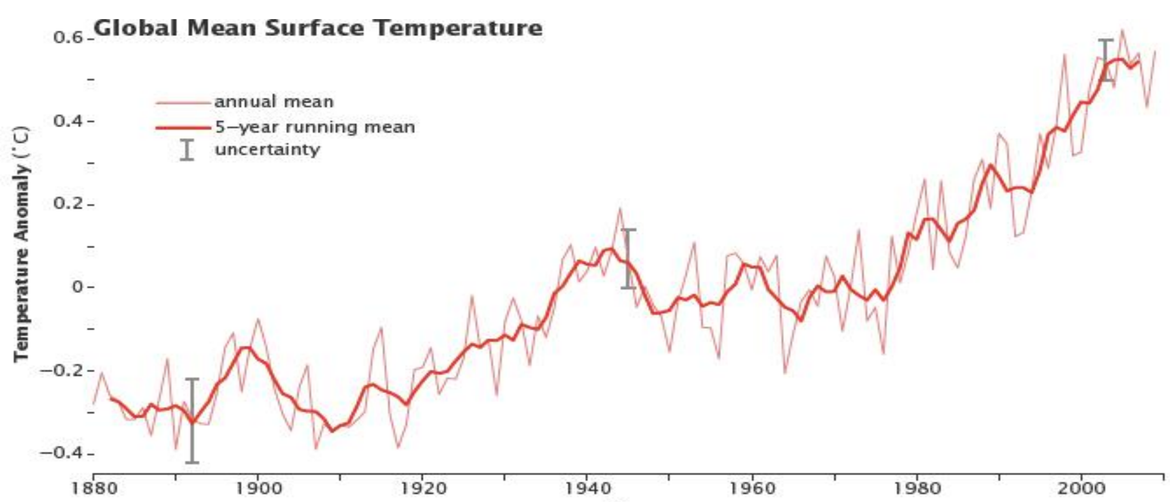


Figure 3: Attendance Depending on Term Dates

Conclusion: This unique cohort of young adults living with HIV appear to value their education, preferring to attend outpatient services within holiday periods. Reassuringly they appear to be resilient against British weather conditions, suggesting youth service utilisation may be minimally affected by an increase in extreme weather following climate change.



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