THE LANCET
Global Health

Supplementary appendix 9

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.
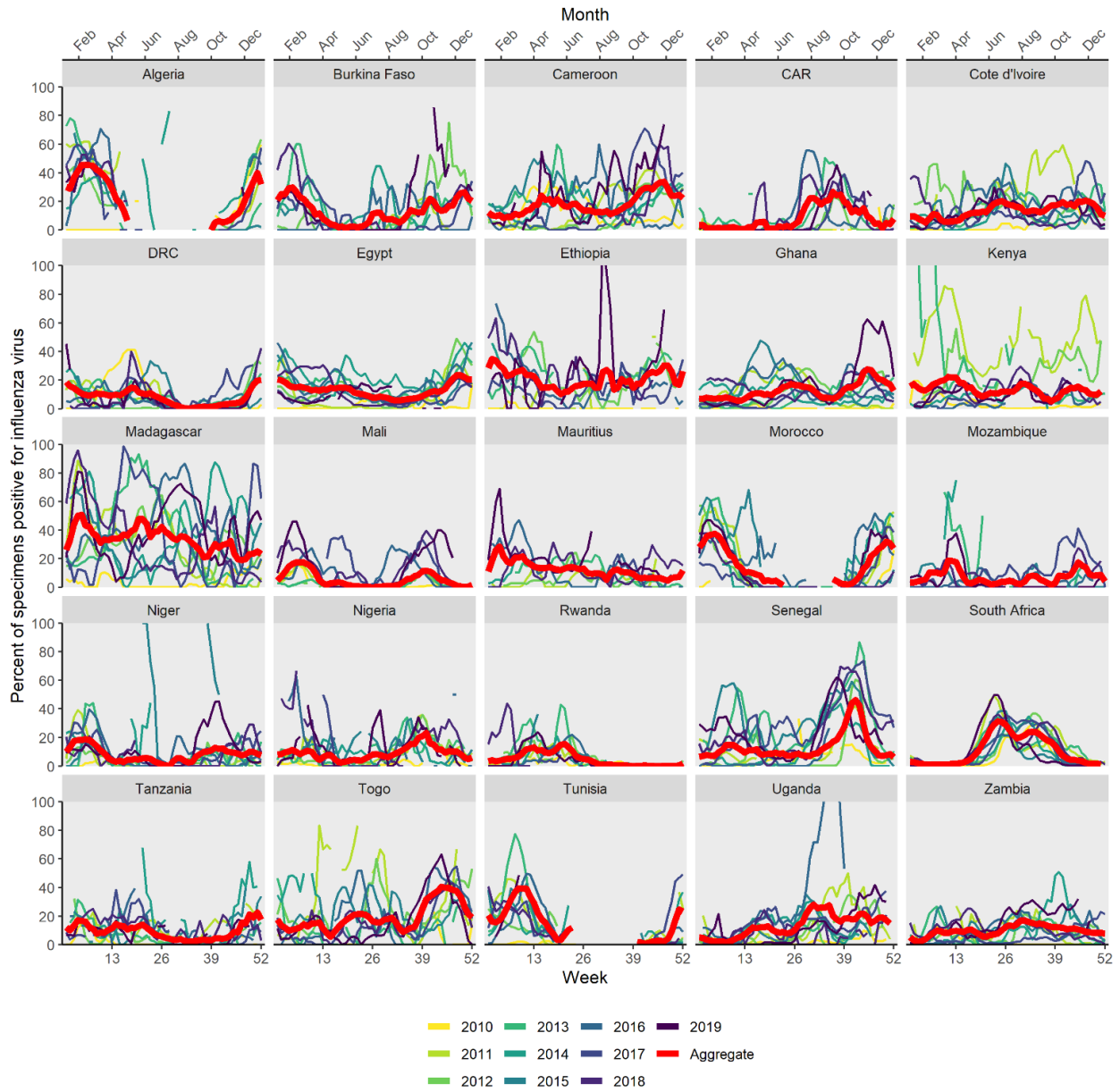
Supplementary Tables

Supplementary Table 1: Summary of concepts for three methods: World Health Organization, Aggregate Average, and Moving Epidemic.

Key Concepts	Description	WHO Method	Aggregate Average Method	Moving Epidemic Method
Average epidemic curve	Describes the usual influenza activity that occurs during a typical year.	Calculate 3-week moving positivity of influenza proportion positive for each year of data. Align the multiple years of data around the median peak week. Calculate average across all years for each week to create average epidemic curve.	Calculate 3-week moving positivity of influenza proportion positive for each year of data. Calculate average across all years for each week to create average epidemic curve.	
Seasonal epidemic threshold	The level of influenza activity that signals the start and end of an epidemic period.	Calculate average across all weeks in the average epidemic curve.	Calculate average across all weeks in the average epidemic curve.	Calculate the upper limit of the 95% one-sided confidence interval of the 30 highest pre-epidemic weekly influenza proportion positive.
Average epidemic start week	The usual time when an epidemic period starts.	The first of at least three consecutive weeks with the average epidemic curve value above the seasonal epidemic threshold.	The first of at least three consecutive weeks with the average epidemic curve value above the seasonal epidemic threshold.	The first week where influenza activity exceeds the seasonal epidemic threshold.
Average epidemic end week	The usual time when an epidemic period ends.	The first of at least three consecutive weeks with the average epidemic curve value below the seasonal epidemic threshold.	The first of at least three consecutive weeks with the average epidemic curve value below the seasonal epidemic threshold.	
Average epidemic length	The average number of weeks that an epidemic lasts.	Calculate the difference in weeks between the average epidemic start and end weeks.	Calculate the difference in weeks between the average epidemic start and end weeks.	

Supplementary Figures

Supplementary Figure 1: Average influenza activity and seasonal thresholds for 25 African countries based on data from 2010 – 2019 with the Aggregate Average Method with yearly and aggregate data overlayed.

Supplementary Figure 2: Weekly number of influenza tests per 100,000 habitants between countries overtime from 2010-2019.
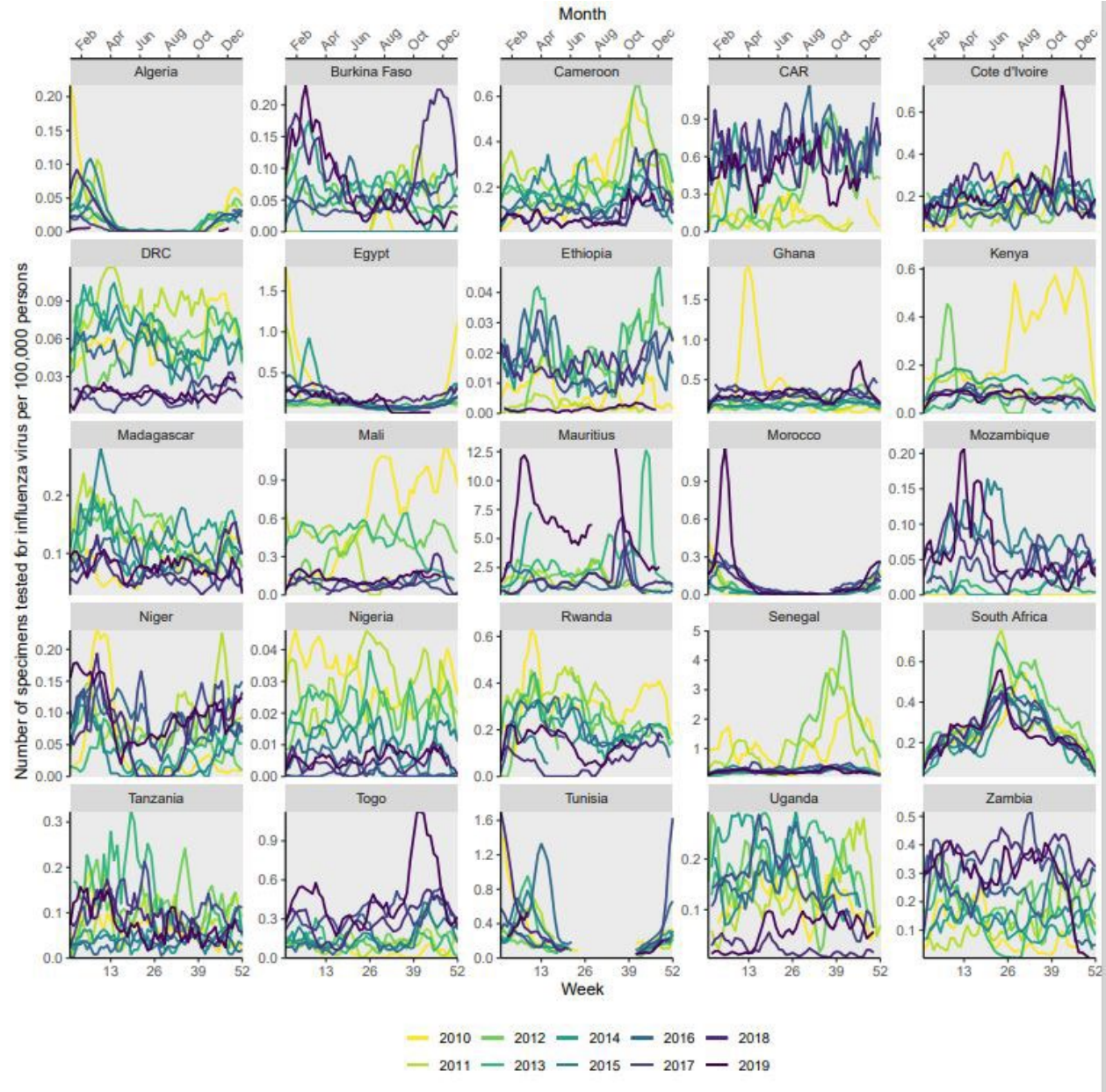
*This is the 3-week rolling average (center-aligned) of the number of specimens processed divided by the total population for that year * 100,000.

Supplementary Figure 3: Average influenza activity and seasonal thresholds for 25 African countries based on data from 2010 – 2019 with the WHO Method.
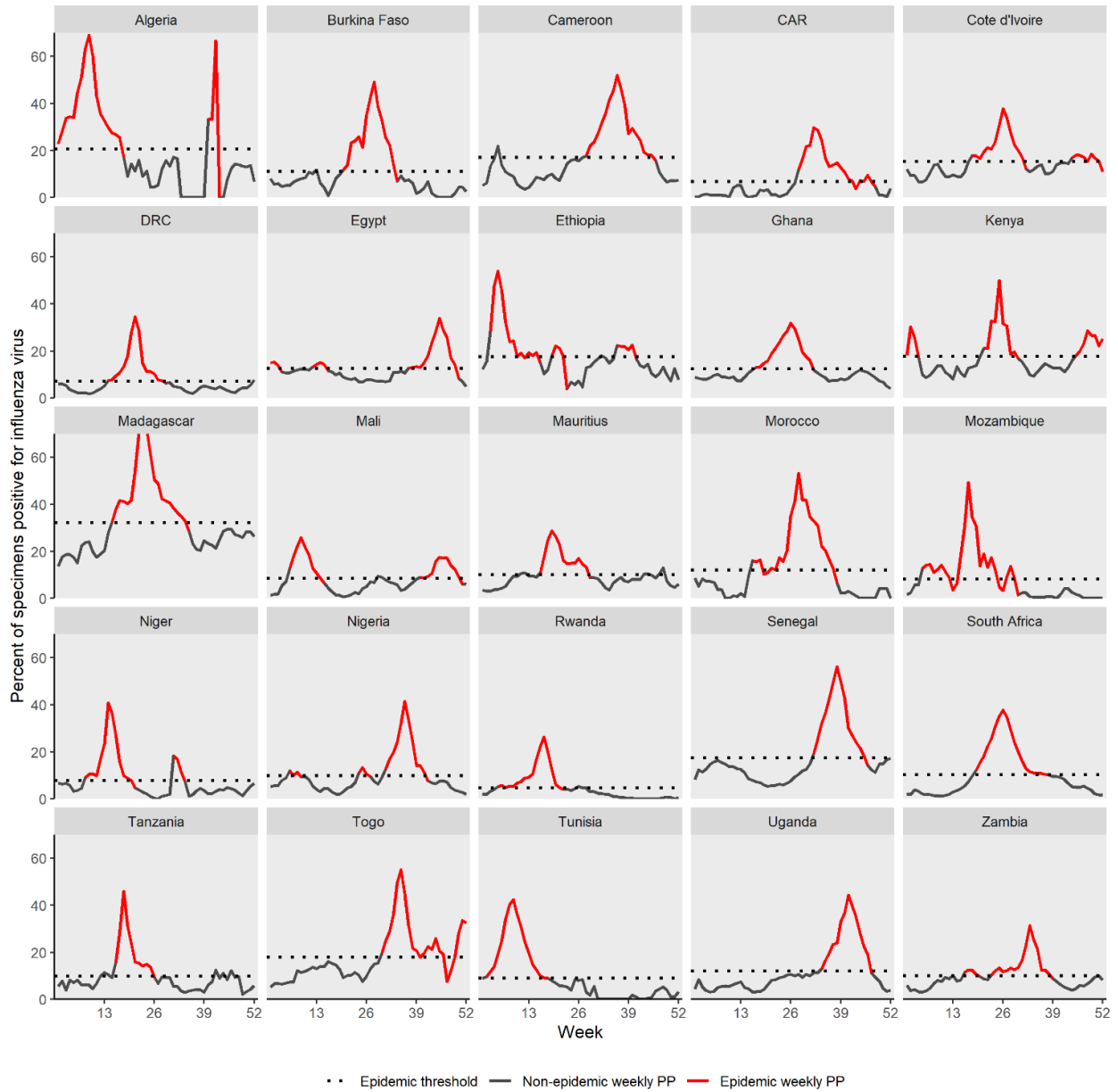
Supplementary Figure 4: Average influenza activity and seasonal thresholds for 25 African countries based on data from 2010 – 2019 with the Moving Epidemic Method (MEM).