Probability and Risk

Improving public understanding of probability and risk with special emphasis on its application to the law. Why Bayes theorem and Bayesian networks are needed

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About Me

Norman Fenton

Norman's experience in risk assessment covers application domains such as legal reasoning (he has been an expert witness in major criminal and civil cases), software project risk, medical decision-making, vehicle reliability, football prediction, transport systems, and financial services. Norman has published over 130 articles and 5 books on these subjects

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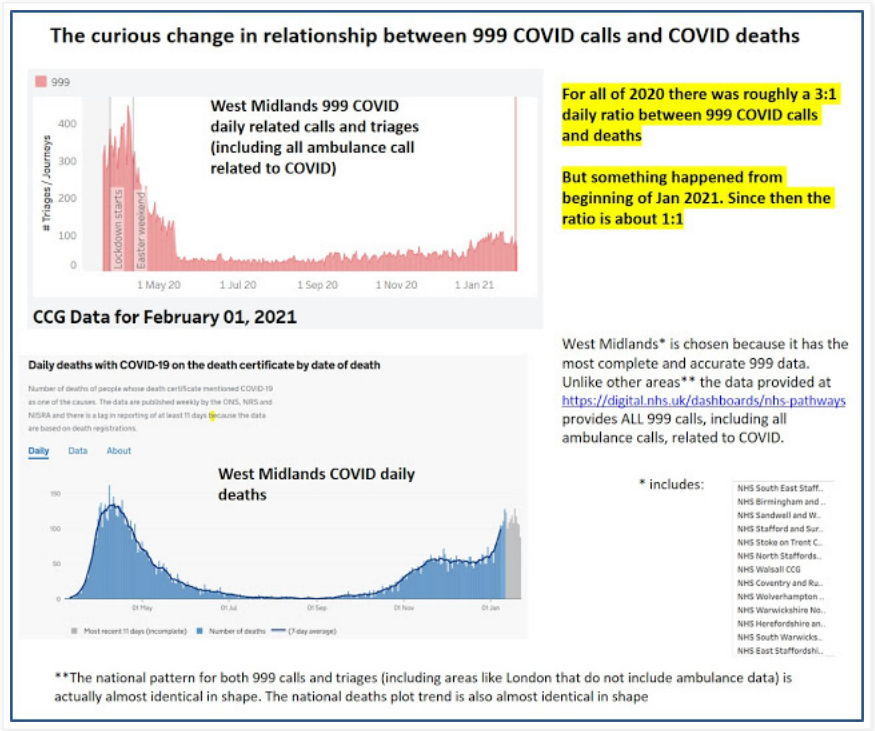
Wednesday, 3 February 2021

The curious change in relationship between 999 COVID calls and COVID deaths



I have previously reported on the strange discrepancy between COVID 'cases' and COVID-related 999 calls/triages.

With the massive January 2021 surge in COVID classified deaths I've been looking at the relationship between death counts (reported at https://coronavirus.data.gov.uk) and the 999 triages and calls (reported at https://digital.nhs.uk/dashboards/nhs-pathways

The problem with the 999 data is that for many regions (including London) it does not include all 999 ambulance service calls related to COVID. But, for certain areas such as the West Midlands, the 999 calls data ***does include the 999 ambulance service calls****. So using the filtering option to display only the plot of 999 calls for the West Midlands NHS authorities, it is possible to do a complete comparison to deaths in the same area as shown in the diagram above.

I welcome any explanation for why the daily ratio between 999 COVID calls and deaths was consistently about 3 to 1 during 2020, but suddenly became 1:1 from the beginning of 2021.

*It is, however, important to note that the national pattern for both 999 calls and triages (including areas like London that do not include ambulance data) is actually almost identical in shape. The national deaths plot trend is also almost identical in shape as can be seen here:

Book "Risk Assessment and Decision Analysis with Bayesian Networks"

- Book blog page
- Buy (Amazon)
- Buy (CRC Press)

Key readings

- Bayes and causal modelling in decision making, uncertainty and risk
- Irrational restrictions on Bayes in the Law
- Probability Fallacies and the Law

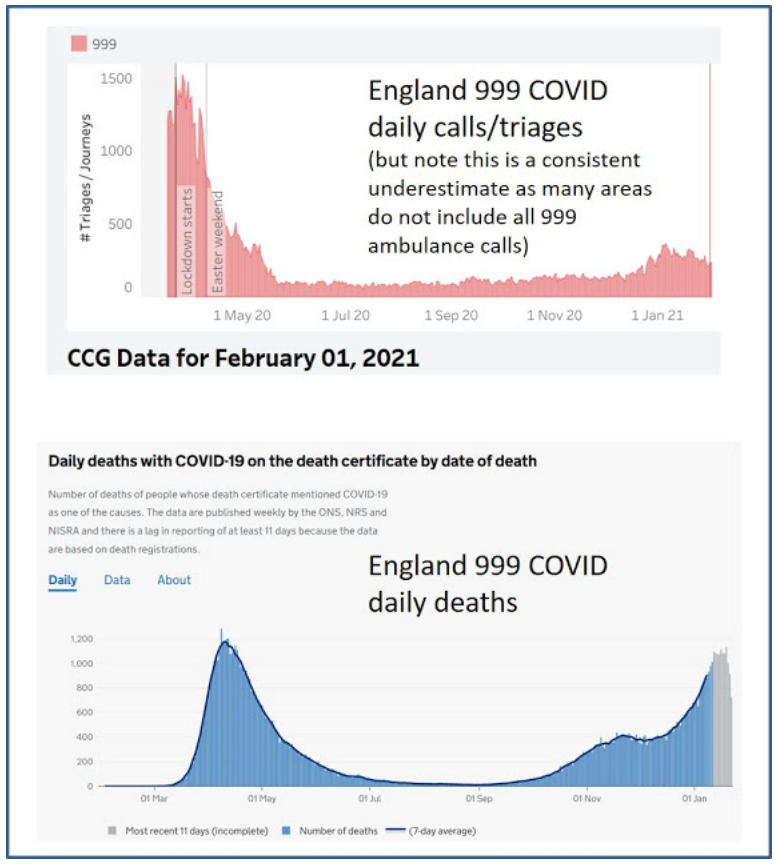
Labels

- AgenaRisk
- Bayes and probability theory
- case study
- COVID
- legal reasoning
- likelihood ratio
- medical
- New paper
- review
- risk assessment

Links

- BAYES-KNOWLEDGE Blog
- Agena: Bayesian networks
- Book: Risk Assessment with Bayesian Networks
- Bayes and the Law
- Pi Football (Using Bayesian nets to predict football results)
- Probability: Fallacies, Myths and Puzzles
- Risk Assessment and Decision Analysis at Queen Mary

Blog archive



As usual all the usual caveats discussed here apply.

at 13:02

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between 999 COV...
► January (1)
► 2020 (39)
► 2019 (22)
► 2018 (31)
► 2017 (9)
► 2016 (15)
► 2015 (22)
► 2014 (9)
► 2013 (7)
► 2012 (8)
► 2011 (11)