Dr Rodney P Jones

www.hcaf.biz hcaf_rod@yahoo.co.uk Mob: 07890 640399

LinkedIn Profile: https://www.linkedin.com/in/rodney-jones-4263943a/ ResearchGate Profile: https://www.researchgate.net/profile/Rodney_Jones

Dr Rodney Jones has a B.Sc. (Hon) in Microbiology/Biochemistry and a Ph.D. in Chemical Engineering; is a qualified management accountant and has completed the Hewlett Packard course in Total Quality Management. His career outside the NHS covers 7 years in academia & research (Biochemical Engineering) and 10 years in industry as a group process development engineer for blue-chip FMCG plc's and as general manager of an international laboratory proficiency testing organisation.

He has over 29 years' experience in healthcare (commencing as Assistant Director of Information at the Royal Berkshire Hospital) both within the NHS and as an independent consultant covering Acute & Community involving Finance, Information, Contracting, Commissioning, Performance Management and Service Planning.

Rod has developed unique expertise in:

- Forecasting demand and capacity planning
- Financial risk in healthcare budgets
- Forecasting emergency admissions and bed demand (including maternity)
- Optimising hospital bed pools
- Evaluation of apparent excess levels of acute intervention
- Limitations of the HRG tariff and the adequacy of Trust costing & pricing processes
- Statistical stress testing of the assumptions behind business cases

His research has led to the development of many innovative and new methods for understanding the operational and financial challenges in healthcare. He is the author of hundreds of papers, articles & reports, is an invited speaker at national conferences, is a member of the editorial board of the British Journal of Healthcare Management and the International Journal of Environmental Research and Public Health. For many years he ran a regular feature 'Money Matters' which investigated the application of statistical methods and trend analysis into the understanding of how costs behave in the real world of health care.

According to Research Gate his research places him in the top 2,5% of international researchers and academics.

Recent Projects (2011 to 2021)

- An extended series of studies into international under reporting of COVID-19 deaths and the impact of the pandemic on hospital capacity pressures
- A large international study on the effects of influenza vaccination on excess winter mortality (EWM)
- Assisting a CCG understand their level of elective demand
- A review of international comparisons of hospital bed numbers
- A review of international comparisons in critical care bed numbers

- Capacity planning, bed requirements, analysis of social groups over-utilizing critical care and A&E for a large London tertiary hospital
- Inpatient capacity planning for a University Hospital and assisting clinicians with medical research
- An audit of patients who died for a University Hospital
- Member of the Mortality Review Group for a University Hospital
- Capacity planning, review of activity trends, bed requirements for a large NHS FT
- A review of bed requirements and medical admissions at an NHS FT
- Activity forecasts for a CSU to triangulate CCG commissioning plans
- Analysis of diagnostic demand and flows to alternative sites for a private diagnostic provider company
- Analytical support to another consultancy company covering a review of unscheduled care across four PCTs
- Analysis of GP in a car diagnosis of patient contacts and calculated cost savings for a CCG
- Analysis of unbundling of diagnostic costs and cost savings for a private provider
- Analysis of cancer demand and flows to tertiary sites for a Cancer Network
- Trends in medical admissions and medical bed requirements for an FT
- Trends in outpatient demand for an FT
- Alternative tariff costs for a medical assessment unit supporting a bid by a large private provider

Prior Projects (1995 to 2010)

- A review of bed requirements for a large Australian tertiary hospital
- Analytical support to a series of reviews of elderly services for PCTs and an SHA
- Analysis of costs within HRG covering cancer services for a cancer network
- Review of bed requirements for two outer London hospitals
- Forecast day surgery capacity required for a new day surgery unit at an FT
- Support to a SHA regarding assessment of financial risk implied in PCT commissioning plans
- Calculation of additional beds required to support single sex accommodation for an FT
- Forecast outpatient & inpatient attendances (NHS & private) at a proposed new community/acute site
- A review of maternity beds and costs at several hospitals
- Forecasts for births at local authority level for a PCT
- A review of specialty bed pools at a Foundation Trust hospital
- A capacity planning tool for a Foundation Trust hospital
- A review of hospital reference costs and resulting LDP challenge for a group of three PCTs
- Analytical support to the Marie Curie end of life DCP care project
- Financial risk in healthcare purchasing
- A review of hospital counting & coding for a consortium of eight PCTs
- Supporting analysis for a community hospitals review
- Financial & operational analysis for early achievement of 18 weeks in NHS South Central
- A review of admission rates for two PCT's using OPCS procedure codes
- Detailed small area analysis of admissions sensitive to primary care intervention for a PCT
- Analysis of financial pressures at Isle of Wight Healthcare due to conflicting assumptions within the national tariff and the capitation formula
- Support for Specialist Commissioning at a SHA
- Modelling of activity required for next year's contract for two PCTs
- Specialty-specific costs in the NHS HRG tariff and implications to perceived efficiency.
- A review of alternative sites for a new hospital using small area geo-demographic modelling. Some 35 alternative configurations including acute and satellite sites were evaluated.

- Forecast shortfall in admissions at two Independent Sector Treatment Centres based on travel time and competition with other sites.
- A review investigating methods the extent of abuse of the definition of 'day case' across English providers for a SHA.
- Detailed support to the LDP process at South Central SHA
- Detailed support to the LDP process at Thames Valley SHA
- Advise on the limitations of various DH capacity & demand models to enable the SHA to give a measured response.
- A review of outpatient to inpatient conversion rates for GP practices in a SHA.
- A review of admission rates across Thames Valley SHA using small area geo-demographic methods.
- Analysis of demand and capacity at Orthopaedic departments supporting a system-wide review of Orthopaedics.
- Statistical support to the TV SHA review of Paediatric deaths at the ORH
- Analytical support to the TV SHA community matrons project
- Analytical support to a review of healthcare services in Hertfordshire
- Capacity planning support to acute trusts (multiple sites)
- Review of bed requirements (multiple sites)

Healthcare Publications

Papers are written in a non-academic style so that busy healthcare managers and policy makers can understand the issues. The fundamental insight into the issues comes from a 29-year career in healthcare, with hard-won understanding by long experience and extensive supporting literature research. JAMMR was formerly called BJMMR.

All **British Journal of Healthcare Management (BJHCM)** articles can be downloaded using an NHS Athens login on the **BJHCM** website: British Journal of Healthcare Management from MAG Online Library. *BJHCM drafts are with permission*.

Understanding Emergency Admissions & Unscheduled Care (http://www.hcaf.biz/emergencyadmissions.html)

Jones R (1997) Emergency admissions: Admissions of difficulty Health Service Journal 107(5546): 28-31. http://www.hcafbit/Hospital%20BedvEM_A Jones R (2009) Trends in emergency admissions. BJHCM 15(4): 188-196. http://www.hcaf.biz/Recent/Trends_in_emergency_admissions.pdf Jones R (2009) Cycles in emergency admissions. BJHCM 15(5): 239-246. http://www.hcaf.biz/2010/Emergency_Admissions_Part_2.pdf Jones R (2010) Emergency preparedness. BJHCM 16(2): 94-95. http://www.hcaf.biz/2010/Emergency_Preparedness.pdf Jones R (2010) Gender ratio and hospital admissions. BJHCM 16(11): 541. http://www.hcaf.biz/2010/Gender ratio.pdf Jones R (2011) Cycles in gender-related costs for long-term conditions. BJHCM 17(3): 124-125. http://www.hcaf.biz/2011/Gender_Cycles_in_Cost.pdf Jones R (2012) Gender ratio and cycles in population health costs. BJHCM 18(3): 164-165. http://www.hcaf.biz/2012/Gender_ratio_cost_cycles.pdf Jones R (2012) Environment induced volatility and cycles in population health. Positive Health Online 194 (May): http://www.positivehealth.com/article/clinicalpractice/environment-induced-volatility-and-cycles-in-population-health Jones R (2013) Is the demographic shift the real problem? BJHCM 19(10): 509-511. http://www.hcaf.biz/2013/Demographic_shift.pdf Jones R (2013) Trends in elderly diagnoses: links with multi-morbidity. BJHCM 19(11): 553-558. http://www.hcaf.biz/2013/Elderly_Trends.pdf Jones R (2014) What is happening in unscheduled care? Journal of Paramedic Practice 5(2): 60-62. http://www.hcaf.biz/2014/Urgent_Care_Extract.pdf Jones R (2014) Forecasting conundrum: a disease time cascade. BJHCM 20(2): 90-91. http://www.hcaf.biz/2014/Forecasting_conundrum.pdf Jones R (2014) Long-term cycles in admissions for neurological conditions. BJHCM 20(4): 192-193. http://www.hcaf.biz/2014/Neurological_cycles.pdf Jones R (2014) Trends in admission for allergy. BJHCM 20(7): 350-351. http://www.hcaf.biz/2014/Trends_Allergy.pdf Jones R (2015) Forecasting medical emergency admissions. BJHCM 21(2): 98-99. http://www.hcaf.biz/2015/Forecast_Medical.pdf Jones R (2015) Estimating acute costs. BJHCM 21(3): 152-153. http://www.hcaf.biz/2015/Medical Costs.pdf Jones R (2015) Understanding growth in emergency admissions. BJHCM 21(4): 195-197. Jones R (2015) Exploring trends in demand for urgent care. Journal of Paramedic Practice 7(10): 486-488. Jones R (2016) The unprecedented growth in medical admissions in the UK: the ageing population or a possible infectious/immune aetiology? Epidemiology: Open Access 6(1): 1000219 http://dx.doi.org/10.4172/2161-1165.1000219 Jones R (2016) Rising emergency admissions in the UK and the elephant in the room. Epidemiology: Open Access 6(4): 1000261 doi: 10.4172/2161-1165.1000261

Trends in Emergency Department Attendances & Subsequent Admission

Jones R (2010) Forecasting emergency department attendances. *BJHCM* 16(10): 495-496. http://www.hcaf.biz/2010/A&E_attendances.pdf Jones R (2012) Ambulance call-outs and disruptive technology. *BJHCM* 18(2): 112-113. http://www.hcaf.biz/2012/Ambulance_call_out.pdf

Jones R (2012) Age-related changes in A&E attendance. *BJHCM* 18(9): 502-503. http://www.hcaf.biz/2012/Age_A&E.pdf Jones R (2013) Trends in unscheduled care. *BJHCM* 19(6): 301-304. http://www.hcaf.biz/2013/A&E_trends.pdf Jones R (2013) Hidden complexity in A&E trends in England. *BJHCM* 19(7): 354-355. http://www.hcaf.biz/2013/A&E_complexity.pdf Jones R (2013) A&E attendance: the tip of a wider trend. *BJHCM* 19(9): 458-459. http://www.hcaf.biz/2013/A&E_Tip_of_trend.pdf Jones R (2014) Untangling the A&E crisis. *BJHCM* 20(5): 246-247. http://www.hcaf.biz/2014/Untangling_A&E.pdf Jones R (2015) A&E tipping points. *BJHCM* 21(6): 248-249. http://hcaf.biz/2015/Tipping_Points.pdf Jones R (2015) A&E admissions: where next? *BJHCM* 21(6): 292. http://hcaf.biz/2015/Next_emergency.pdf Beeknoo N, Jones R (2016) Factors influencing A&E attendance, admissions and waiting times at two London hospitals. *Journal of Advances in Medicine and Medical Research* 17(10): 1-29. http://www.sciencedomain.org/abstract/16193 Beeknoo N, Jones R (2016) Using Social Groups to Locate Areas with High Emergency Department Attendance, Subsequent Inpatient Admission and Need for Critical Care. *Journal of Advances in Medicine and Medical Research* 18(6): 1-23. http://www.sciencedomain.org/abstract/16693

Forecasting & Understanding Demand (http://www.hcaf.biz/forecastingdemand.html)

Jones R (1996) Estimation of annual activity and the use of activity multipliers. Health Informatics 2, 71-77.

Jones R (1996) How many patients next year? Healthcare Analysis & Forecasting, Camberley, UK.

Jones R (2010) Forecasting year-end activity. *BJHCM* 16(7): 350-351. http://www.hcaf.biz/2010/Forecasting_Year_End.pdf Jones R (2010) Forecasting demand. *BJHCM* 16(8): 392-393. http://www.hcaf.biz/2010/Forecasting_Demand.pdf Jones R (2011) Cycles in inpatient waiting time. *BJHCM* 17(2): 80-81. http://www.hcaf.biz/2011/Waiting_time_cycles.pdf Jones R (2011) Death and future healthcare expenditure. *BJHCM* 17(9): 436-437. http://www.hcaf.biz/2011/Death_and_expenditure.pdf

Jones R (2012) Weathering the storm: Birth forecasting in turbulent times. *Midwives Magazine*15(2); https://www.rcm.org.uk/news-views-and-analysis/weathering-the-storm

Jones R (2014) Expected trends in births and deaths to 2037. *BJHCM* 20(8): 402-403. http://www.hcaf.biz/2014/Births_Deaths.pdf Jones R (2015) Unexplained infectious events leading to deaths and medical admissions. *BJHCM* 21(1): 46-47. http://www.hcaf.biz/2015/Belfast_Outbreaks.pdf Jones R (2015) Forecasting medical emergency admissions. *BJHCM* 21(2): 98-99. http://www.hcaf.biz/2015/Forecast_Medical.pdf Jones R (2015) Estimating acute costs. *BJHCM* 21(3): 152-153. http://www.hcaf.biz/2015/Medical_Costs.pdf Jones R (2015) Understanding growth in emergency admissions. *BJHCM* 21(4): 195-197.

Jones R (2015) Trends in demand for urgent care. Journal of Paramedic Practice 7(10): 486-488.

Beeknoo N, Jones R (2016) Using social groups to locate areas of high utilization of critical care. *BJHCM* 22(11): 551-560. http://www.hcafhiz2016CCU_OA.pdf Beeknoo N, Jones R (2017) The demography myth - how demographic forecasting vastly underestimates hospital admissions, and creates the illusion that fewer hospital beds or community-based bed equivalents will be required in the future. *Journal of Advances in Medicine and Medical Research 19(2)*: *1-27. doi*: 10.9734/BJMMR/2017/29984

Beeknoo N, Jones R (2017) Information asymmetry in financial forecasting within healthcare and simple methods to overcome this deficiency. *Journal of Advances in Medicine and Medical Research* 20(4): 1-12. doi: 10.9734/BJMMR/2017/31474

Jones R (2017) What is driving growth in the English NHS? *BJHCM* 23(3): 134-137. http://www.hcaf.biz/2017/NHS_Growth.pdf Jones R (2017) Volatility in emergency admissions per death. *BJHCM* 23(11): 552-554. http://www.hcaf.biz/2017/EM_per_death.pdf Jones R (2019) The nearness to death effect and why NHS pressures are going to intensify. *Journal of Paramedic Practice* 11(1): 28-30. https://www.magonlinelibrary.com/doi/10.12968/jpar.2019.11.1.28

Jones R (2019) Ignorance isn't bliss: behind the unequal distribution of end-of-life demand. *Journal of Paramedic Practice* 11(2): 77-79. https://www.magonlinelibrary.com/doi/abs/10.12968/jpar.2019.11.2.77

Jones R (2019) End-of-life demand is both highly volatile and shows unexpected trends. *Journal of Paramedic Practice* 11(3): 122-124. doi: 10.12968/jpar.2019.11.3.122

Jones R (2019) Unexplained periods of higher deaths contribute to marginal changes in health care demand and health insurance costs: International perspectives. *International J Health Planning Management* 35(3): 673-684. https://doi.org/10.1002/hpm.2917

Trends in Outpatient Attendance and Follow-up to First Appointments http://www.hcaf.biz/capacitymanagement.html

Beauchant S, Jones R (1997) Socio-economic and demographic factors in patient non-attendance. BJHCM 3(10): 523-528.

Jones R (2000) Outpatient appointments: Feeling a bit peaky. Health Service Journal 110(5732): 28-31.

Jones R (2001) Outpatient Appointments: A pretty little sum. Health Service Journal 111(5740): 28-31.

Jones R (2001) Outpatient waiting times: Quick, quick, slow. Health Service Journal 111(5778): 20-23.

Jones R (2009) What next for 18 weeks? *BJHCM* 15(8): 404-405. http://www.hcaf.biz/Capacity% 20Management/After_18_weeks.pdf Jones R (2009) How to maintain 18 weeks. *BJHCM* 15(9): 456-457. http://www.hcaf.biz/Recent/Maintain_18_weeks.pdf Jones R (2012) Are there cycles in outpatient costs? *BJHCM* 18(5): 276-277. http://www.hcaf.biz/2012/Cycles_in_outpatient_costs.pdf Jones R (2012) Increasing GP referrals: collective jump or infectious push? *BJHCM* 18(9): 487-495. http://www.hcaf.biz/2012/GP_referral.pdf Jones R (2012) GP referral to dermatology: which conditions? *BJHCM* 18(11): 594-596. http://www.hcaf.biz/2012/GP_ref_dermatol.pdf Jones R (2012) Trends in outpatient follow-up rates, England 1987/88 to 2010/11. *BJHCM* 18(12): 647-655. http://www.hcaf.biz/2012/Follow-up_rates.pdf Jones R (2014) Unexpected changes in outpatient first attendance. *BJHCM* 20(3): 142-143. http://www.hcaf.biz/2014/OP_Immune.pdf Jones R (2016) Recent trends in outpatient follow-up rates. *BJHCM* 22(2): 92-94. http://www.hcaf.biz/2016/Followup_Trends.pdf

Understanding Excess Winter Mortality (EWM) and Winter Capacity Planning

Jones R (2017) The link between seasonal death rates and workloads. *BJHCM* 23(9): 448-450. http://www.hcaf.biz/2017/Seasonal_Workload.pdf Jones R (2017) Anticipated ambulance workload during the 2016/17 winter. *Journal of Paramedic Practice* 9(2): 52-54. Jones R (2019) Does on/off switching of deaths modify NHS winter workload? *Journal of Paramedic Practice* 11(4): 172-173. Jones R (2019) Will the winter of 2019/2020 have unusually high service demand? Part 1: Lessons. *Journal of Paramedic Practice* 11(11): 492-494. Jones R (2019) Will the winter of 2019/2020 have unusually high service demand? Part 2: Strategy. *Journal of Paramedic Practice* 11(12): 538-540.

Jones R (2020) Excess winter mortality (EWM) and stalling international improvements in life expectancy and mortality rates. *BJHCM* 26(12); https://doi.org/10.12968/bjhc.2020.0020

Jones R (2021) Excess winter mortality (EWM) as a dynamic forensic tool: Where, when, which conditions, gender, ethnicity, and age. *Int J Environmental Research and Public Health* 18(4); 2161. https://doi.org/10.3390/ijerph18042161 Jones R (2021) The influenza vaccination paradox: why has vaccination not reduced excess winter mortality (EWM)? In preparation

Understanding Hospital Length of Stay (LOS)

Jones R (2009) Length of stay efficiency. *BJHCM* 15(11): 563-564. http://www.hcaf.biz/400/Benchmarking_LOS.pdf Jones R (2010) Benchmarking length of stay. *BJHCM* 16(5): 248-250. http://www.hcaf.biz/2010/Benchmarking_LOS.pdf Jones R (2013) Average length of stay in hospitals in the USA. *BJHCM* 19(4): 186-191. http://www.hcaf.biz/2013/USA_ALOS.pdf Jones R (2015) Is length of stay a reliable efficiency measure? *BJHCM* 21(7): 344-345. http://hcaf.biz/2015/LOS_deaths.pdf Jones R (2015) Declining length of stay and future bed numbers. *BJHCM* 21(9): 440-441. http://hcaf.biz/2015/LOS_deaths.pdf Jones R (2016) Hospital deaths and length of stay. *BJHCM* 22(8): 424-425. http://www.hcaf.biz/2016/Deaths_LOS.pdf Jones R (2016) Where next for overnight stay admissions, length of stay and bed days? *BJHCM* 22(9): 475-477. http://www.hcaf.biz/2016/LOS_Beddays.pdf Jones R (2017) Growth in NHS admissions and length of stay: A policy-based evidence fiasco. *BJHCM* 23(12): 603-606. http://www.hcaf.biz/2017/Growth_LOS_Admissions.pdf Jones R (2018) Maternity length of stay efficiency and neonatal admissions. *BJHCM* 24(3): 122-124. http://www.hcaf.biz/2018/Maternity_LOS.pdf

Understanding Sickness Absence Rates – which follow the same curious patterns as deaths (see below)

Jones R (2016) Unusual trends in NHS staff sickness absence. *BJHCM* 22(4): 239-240. http://www.hcaf.biz/2016/Absence_trends.pdf Jones R (2019) NHS sickness absence – the hidden message that no one is listening to. doi: 10.13140/RG.2.2.13996.31365 http://www.hcaf.biz/2019/NHS_sickness_absence.pdf Jones R (2019) Sickness absence trends for the Department for Work & Pensions (England) follow identical hidden on/off patterns to those seen for NHS staff. doi: 10.13140/RG.2.2.27457 http://www.hcaf.biz/2019/DWP_AWDL_Trend.pdf Jones R (2019) All-cause mortality and NHS sickness absence rates in England show a lagged series of step-like changes. *Achievements of Biology and Medicine* (Transl) 33(1): 41-43. http://www.hcaf.biz/2019/Death_Absence_Lag.pdf Jones R (2020) NHS sickness absence in England – hidden patterns. *BJHCM* 26(4): 1-11. http://doi.org.10.12968/bjhc.2019.0026 or http://www.hcaf.biz/2020/NHS_SA_Shifts.pdf

Jones R (2021) Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 2: High population density is associated with enhanced year-to-year volatility in many aspects of poor health including health care worker sickness absence. *Journal of Health Care Finance*. 47(3): http://www.healthfinancejournal.com/~junland/index.php/johcf/index

Covid-19 and excess deaths in the UK

Jones R (2020) How many extra deaths really occurred in the UK? See http://www.hcaf.biz/2020/Covid_Excess_Deaths.pdf Jones R (2021) The COVID-19 counting fiasco: Is the real total of deaths closer to 10 million? In-depth analysis from India and other countries. *Journal of Health Care Finance*, Spring: Special Edition, pp1-8. The COVID-19 counting fiasco: Is the real total of deaths closer to 10 million? In-depth analysis from India and other countries. | Jones, PhD | Journal of Health Care Finance (healthfinancejournal.com)

Understanding Hospital Bed Planning & Occupancy http://www.hcaf.biz/hospitalbeds.html also http://www.hcaf.biz/Hospitalefficiency.html - bed demand is intrinsically linked to the forecasting demand section

Jones R (1997) Emergency admissions: Admissions of difficulty Health Service Journal 107(5546): 28-31. http://www.hcaftbizHospital%20BetkEM_Admissions_HSI.pdf Jones R (2001) Bed occupancy: Don't take it lying down. Health Service Journal 111(5752): 28-31. http://www.hcaf.biz/Hospital%20Beds/HSJ_Beds.pdf Jones R (2001) New approaches to bed utilisation - making queuing theory practical. Presented at New Techniques for Health and Social Care. Harrogate Management Centre Conference 27th September 2001. http://www.hcaf.biz/Hospital%20Beds/New_Approaches_Bed_Utilisation.pdf Jones R (2003) Bed management - Tools to aid the correct allocation of hospital beds. Presented at Re-thinking bed management - Opportunities and challenges. Harrogate Management Centre Conference, 27th January 2003. http://www.haftizHopite%2BatsManades2Warths20/wa Jones R (2009) Emergency admissions and hospital beds. BJHCM 15(6): 289-296. http://www.hcaf.biz/Recent/Emergency_Beds.pdf Jones R (2009) Building smaller hospitals. BJHCM 15(10): 511-512. http://www.hcaf.biz/Recent/Building_smaller_hospitals.pdf Jones R (2009) Crafting efficient bed pools. BJHCM 15(12): 614-616. http://www.hcaf.biz/Hospital%20Beds/Efficient_bed_pools.pdf Jones R (2010) Myths of ideal hospital size. Medical Journal of Australia 193(5): 298-300. http://www.hcaf.biz/2010/Myths_of_ideal_hospital_size.pdf Jones R (2011) Does hospital bed demand depend more on death than demography? BJHCM 17(5): 190-197. http://www.tcifiti/2011Metricl_for_detamining_hospital_bo Jones R (2011) Bed days per death: a new performance measure. BJHCM 17(5): 213. http://www.hcaf.biz/2011/Bed_days_per_death.pdf Jones R (2011) Hospital bed occupancy demystified and why hospitals of different size and complexity must operate at different average occupancy. BJHCM 17(6): 242-248. http://www.hcaf.biz/2011/Hospital_occupancy.pdf Jones R (2011) A&E performance and inpatient bed occupancy. BJHCM 17(6): 256-257. http://www.hcaf.biz/2011/A&E_and_occupancy.pdf Jones R (2011) Bed occupancy - the impact on hospital planning. BJHCM 17(7): 307-313. http://www.hcaf.biz/2011/Trends_Bed_Occup.pdf Jones R (2011) The need for single room accommodation in hospital. BJHCM 17(7): 316-317. http://www.hcaf.biz/2011/Single_room.pdf Jones R (2011) Demand for hospital beds in English Primary Care Organisations. BJHCM 17(8): 360-367. http://www.hcaf.biz/2011/PCO_Bed_Demand.pdf Jones R (2011) A paradigm shift for bed occupancy. BJHCM 17(8): 376-377. http://www.hcaf.biz/2011/Paradigm_Shift_Bed_Occupancy.pdf Jones R (2011) Volatility in bed occupancy for emergency admissions. BJHCM 17(9): 424-430. http://www.hcaf.biz/2011/Volatile_bed_occupancy.pdf Jones R (2012) Maternity bed occupancy: all part of the equation. Midwives Magazine 15(1): http://www.cm.org.uk/midwives/features/all-part-of-the-equation/ Jones R (2012) A simple guide to a complex problem - maternity bed occupancy. British Journal of Midwifery 20(5): 351-357. https://doi.org/10.1016/j.com/10.10

Jones R (2013) A guide to maternity costs – why smaller units have higher costs. *British Journal of Midwifery* 21(1): 54-59. http://www.tcsfi/iz2013/Maerity_Cost_Abstrational processes and the second state of the second state

Jones R (2015) Bed occupancy, efficiency and infectious outbreaks. *BJHCM* 21(8): 396-397. http://www.hcaf.biz/2015/Bed_occupancy_steps.pdf Jones R (2015) Links between bed occupancy, deaths and costs. *BJHCM* 21(11): 544-545. http://hcaf.biz/2015/Occupancy_deaths_costs.pdf Jones R (2016) Hospital bed occupancy and deaths (all-cause mortality) in 2015. *BJHCM* 22(5): 283-285. http://www.hcaf.biz/2016/Beds_Deaths.pdf Beeknoo N, Jones R (2016) Achieving economy of scale in critical care, and planning information necessary to support the choice of bed numbers. *Journal of Advances in Medicine and Medical Research* 17(9):1-15. doi: 10.9734/BJMMR/2016/28736

Beeknoo N, Jones R (2016) A simple method to forecast next years bed requirements: a pragmatic alternative to queuing theory. *Journal of Advances in Medicine and Medical Research* 18(4): 1-20. doi: 10.9734/BJMMR/2016/29518

Beeknoo N, Jones R (2016) The demography myth - how demographic forecasting underestimates hospital admissions and creates the illusion that fewer hospital beds or community-based bed equivalents will be required in the future. *Journal of Advances in Medicine and Medical Research* **19(2): 1-27. doi:** 10.9734/BJMMR/2017/29984

Jones R (2016) Bed occupancy and hospital mortality. *BJHCM* 22(7): 380-381. http://www.hcaf.biz/2016/Bed_Mortality.pdf Jones R (2017) Is there scope to close acute beds in the STPs. *BJHCM* 23(2): 83-85. http://www.hcaf.biz/2017/NHS_Growth.pdf Jones R (2017) What is driving growth in the English NHS? *BJHCM* 23(3): 134-137. http://www.hcaf.biz/2017/NHS_Growth.pdf Jones R (2017) Flexibility, hospital bed numbers, and sustainability and transformation plans. *BJHCM* 23(10): 498-499. http://www.hcaf.biz/2017/Onc.pff Jones R (2017) Deaths and acute hospital beds in the Sustainability and Transformation Plans. *BJHCM* 23(10): 498-499. http://www.hcaf.biz/2017/Onc.pff Jones R (2017) Bed occupancy continues to show on/off switching. *BJHCM* 23(11): 515-516. http://www.hcaf.biz/2017/Onc.pff_occupancy.pdf Jones R (2018) Local 7-day patterns of on/off switching in acute bed occupancy. *BJHCM* 24(2): 100-102. http://www.hcaf.biz/2017/Occupancy_Waves.pdf Jones R (2018) Do outbreaks of 'Disease X' regulate NHS beds and costs? *BJHCM* 24(2): 100-102. http://www.hcaf.biz/2018/Beds_Disease_X.pdf Jones R (2018) Trends in available beds per death in England. *BJHCM* 24(10): 516-517. http://www.hcaf.biz/2018/Beds_per_death.pdf Jones R (2018) Trends in critical care bed numbers in England. *BJHCM* 24(10): 516-517. http://www.hcaf.biz/2018/CCU_Beds.pdf Jones R (2018) Hospital beds per death how does the UK compare globally. *BJHCM* 24(12): 617-622. http://www.hcaf.biz/2018/International_Beds.pdf Jones R (2019) Condition specific growth in occupied beds in England following a sudden and unexpected increase in deaths. *BJHCM* 25(6): 1-8. Jones R (2019) Have doctors and the public been misled regarding hospital bed requirements? *BJHCM* 25 (7): 242-250. http://www.hcaf.biz/2019/Beds_Doctors_Public_misled.pdf

Jones R (2019) A pragmatic method to compare hospital bed provision between countries and regions: Beds in the states of Australia. *Intl J Health Plan Mgmt* 35(3): 746-759. https://doi.org/10.1002/hpm.2950

Jones R (2020) Curious patterns in hospital bed occupancy data. *BJHCM* 25(3): 71-72. https://doi.org/10.12968/bjhc.2020.0014 Jones R (2020) Would the United States have had too few beds for universal emergency care in the event of a more widespread Covid-19 epidemic? *Int J Environmental Research and Public Health* 17: 5210. https://doi.org/doi:10.3390/ijerph17145210 Jones R (2020) How many medical beds does a country need? An international perspective. BJHCM 26(9): 248-259. https://doi.org/10.12968/bjhc.2020.0028 or http://www.hcaf.biz/2020/International_Medical_Beds.pdf

Jones R (2021) Were the hospital bed reductions proposed by English Clinical Commissioning Groups (CCGs) in the Sustainability and Transformation Plans (STPs) achievable? Insights from a new model to compare international bed numbers. *Intl J Health Planning and Management* 36(2): 459-481. https://doi.org/10.1002/hpm.3094

Jones R (2021) Does the ageing population correctly predict the need for medical beds over the next 40 years? *BJHCM* 27(n): *in press* Jones R (2021). Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 1: Nearness to death, infectious outbreaks, and Covid-19. *Journal of Health Care Finance.* 47(3): 6

Jones R (2021) The expressed demand for acute beds in Australian states: why specific local issues matter. *In preparation* Jones R (2021) A method to compare critical care bed provision between countries and regions within a country. *In preparation*

Was UK Austerity Linked to Higher Deaths?

Jones R (2017) Did austerity cause the rise in deaths seen in England and Wales in 2015? *BJHCM* 23(9): 418-424. http://www.hcdfiz/2017.BJHCM_Austerity.pdf Jones R (2017) Essays on rising mortality in England and Wales – a MEDLINE search is not infallible. *J Roy Soc Med (JRSM)* 110(6):224 doi: 10.1177/0141076817703864

Jones R (2017) Role of social group and gender in outbreaks of a novel agent leading to increased deaths, with insights into higher international deaths in 2015. *Fractal Geometry and Nonlinear Analysis in Medicine and Biology* 3(1): 1-7. doi: 10.15761/FGNAMB.1000146 Jones R (2017) Different patterns of male and female deaths in 2015 in English and Welsh local authorities question the role of austerity as the primary force behind higher deaths. *Fractal Geometry and Nonlinear Analysis in Medicine and Biology* 3(1): 1-4. doi: 10.15761/FGNAMB.1000145 Jones R (2019) Unanswered questions for the austerity theory. Healthcare Analysis & Forecasting. doi: 10.13140/RG.2.2.20357.60643 and also https://papers.ssm.com/sol3/papers.cfm?abstract_id=3319211

Jones R (2019) Deaths in England and Wales are falling – does the austerity theory still apply? Healthcare Analysis & Forecasting. Available via SSRN. See https://papers.csm.com/sol3/papers.cfm?abstract_id=3381403

Jones R (2019) Austerity in the UK and poor health: were deaths directly affected? *BJHCM* 25(11): 337-347. http://www.hcaf.biz/2019/UK__Austerity.pdf Jones R (2020) Excess winter mortality (EWM) and stalling international improvements in life expectancy and mortality rates. *BJHCM* 26(12); https://doi.org/10.12968/bjhc.2020.0020

Understanding Hospital Mortality

Jones R (2015) A 'fatal' flaw in hospital mortality models: How spatiotemporal variation in all-cause mortality invalidates hidden assumptions in the models. *FGNAMB* 1(3): 82-96. doi: 10.15761/FGNAMB.1000116

Jones R (2015) Links between bed occupancy, deaths and costs. *BJHCM* 21(11): 544-545. http://hcaf.biz/2015/Occupancy_deaths_costs.pdf Jones R (2016) Hospital bed occupancy and deaths (all-cause mortality) in 2015. *BJHCM* 22(5): 283-285. http://www.hcaf.biz/2016/Beds_Deaths.pdf Jones R (2016) Clear the decks of Summary Hospital-level Mortality Indicator. *BJHCM* 22(6): 335-338. http://www.hcaf.biz/2016/SHMI_Flaw.pdf Jones R (2016) Bed occupancy and hospital mortality. *BJHCM* 22(7): 380-381. http://www.hcaf.biz/2016/Bed_Mortality.pdf Jones R (2016) Hospital deaths and length of stay. *BJHCM* 22(8): 424-425. http://www.hcaf.biz/2016/Deaths_LOS.pdf Jones R (2016) Hospital mortality rates and changes in activity. *BJHCM* 22(10): 519-521. http://www.hcaf.biz/2016/SHMI_Activity.pdf Jones R, Sleet G, Pearce O, Wetherill M (2016) Complex changes in blood biochemistry revealed by a composite score derived from Principal Component Analysis: Effects of age, patient acuity, end of life, day-of week, and potential insights into the issues surrounding the 'Weekend' effect in

hospital mortality. *Journal of Advances in Medicine and Medical Research* 18(5): 1-28. doi: 10.9734/BJMMR/2016/29355 Jones R (2016) Trends in proportion of deaths occurring in hospital. *BJHCM* 22 (11): 572-573. http://hcaf.biz/2016/Trend_proportion_hospital.pdf Jones R (2016) Trends in crude death rates in English hospitals. *BJHCM* 22 (12): 616-617. http://www.hcaf.biz/2016/Death_Rate.pdf Jones R (2017) Is the 'weekend' mortality effect real? *BJHCM* 23 (1): 39-41. www.hcaf.biz/2017/Weekend_Mortality.pdf

Jones R (2017) In-hospital deaths, all-cause mortality and medical admissions. *BJHCM* 23(5): 239-240. http://www.hcaf.biz/2017/Death_Medical.pdf Jones R (2018) Hospital mortality scores are unduly influenced by changes in the number of admissions. *European Journal of Internal Medicine* 51: e35-e37. https://doi.org/10.1016/j.ejim.2018.02.010

Jones R (2018) Unexpected trends in hospital standardized mortality indicate a novel cause. *European Journal of Internal Medicine*. 52: e9-e11. https://doi.org/10.1016/j.ejim.2018.02.018

Jones R (2018) Hospital mortality scores are unduly influenced by changes in service configuration. *BJHCM* 24 (6): 297-301. http://www.hcaf.biz/2018/SHMI_Configuration.pdf

The Link Between Deaths (all-cause mortality) and Medical Emergency Admissions

Jones R (2012) Diagnoses, deaths and infectious outbreaks. *BJHCM* 18(10): 539-548.

Jones R (2013) An unexplained increase in deaths during 2012. BJHCM 19(5): 248-253.

Jones R (2013) Analysing excess winter mortality: 2012/13. BJHCM 19(12): 601-605.

Jones R (2014) Increased deaths in 2012: which conditions? BJHCM 20(1): 45-47.

Jones R (2014) Trends in death and end-of-life costs in the UK. *BJHCM* 20(6): 298-299.

Jones R (2014) Trends in emergency admissions per death. *BJHCM* 20(9): 446-447.

Jones R (2015) A previously uncharacterized infectious-like event leading to spatial spread of deaths across England and Wales: Characteristics of the most recent event and a time series for past events. Brit J Medicine and Medical Research 5(11): 1361-1380. doi: 10.9734/BJMMR/2015/14285 Jones R (2015) Unexplained infectious events leading to deaths and medical admissions in Belfast. BJHCM 21(1): 46-47. Jones R (2015) Unexpected Increase in Deaths from Alzheimer's, Dementia and Other Neurological Disorders in England and Wales during 2012 and 2013. Journal of Neuroinfectious Diseases 6:172. doi: 10.4172/2314-7326.1000172 Jones R (2015) Influenza-like-illness, deaths and health care costs. BJHCM 21(12): 587-589. Jones R (2016) The real reason for the huge NHS overspend? BJHCM 22(1): 40-42. http://www.hcaf.biz/2016/NHS_Overspend.pdf Jones R (2016) Rising emergency admissions in the UK and the elephant in the room. Epidemiology: Open Access 6(4): 1000261 doi: 10.4172/2161-1165.1000261 Jones R (2016) Deaths and the marginal changes in healthcare costs BJHCM 22(10): 503-509. http://www.hcaf.biz/2016/Deaths_Marginal_Costs.pdf Jones R (2016) Trend in proportion of deaths occurring in hospital. BJHCM 22(11): 572-573. http://hcaf.biz/2016/Trend_proportion_hospital.pdf Jones R (2017) In-hospital deaths, all-cause mortality and medical admissions. BJHCM 23(5): 239-240. http://www.hcaf.biz/2017/Death_Medical.pdf Jones R (2017) Anticipated NHS demand in 2017/18. Journal of Paramedic Practice 9(6): 236-237. Jones R (2017) What government data on death rates fail to show. BJHCM 23(8): 572-573. http://www.hcaf.biz/2017/ONS_MM.pdf Jones R (2017) A reduction in acute thrombotic admissions during a period of unexplained increased deaths and medical admissions in the UK. European Journal of Internal Medicine 46: e31-e33. http://dx.doi.org/10.1016/j.ejim.2017.09.007 Jones R (2018) Volatility in emergency admissions per death. BJHCM 23(11): 554-556. http://www.hcaf.biz/2017/EM_per_death.pdf Jones R (2018) Admissions for certain conditions show explosive growth in England following a sudden and unexpected increase in deaths. European Journal of Internal Medicine. 2018; 54: e33-e35. doi: https://doi.org/10.1016/j.ejim.2018.03.005 Jones R (2018) Do outbreaks of 'Disease X' regulate NHS beds and costs? BJHCM 24(4): 204-205. http://www.hcaf.biz/2018/Beds_Disease_X.pdf Jones R (2018) Clinical workload trends. BJHCM 24(6): 308-309. http://www.hcaf.biz/2018/Staff_Death.pdf Jones R (2018) Deaths in the UK show a large increase in 2018. BJHCM 24(8): 410-411. http://www.hcaf.biz/2018/Scotland_deaths.pdf

Jones R (2018) Will 2018 set a record for deaths? BJHCM 24(9): 464-465. http://www.hcaf.biz/2018/2018_Record.pdf

Jones R (2018) End-of-life, unusual syndromic symptoms, and periods of high physician workload. Achievements of Biology and Medicine 31(1): 46-51. http://files.odmu.edu.ua/biomed/2018/01/d181_46.pdf

Jones R (2019) A need for transparency and evidence-based discussion. *Journal of Paramedic Practice* 11(5): 219-220. Jones R (2019) The calendar year fallacy: The danger of reliance on calendar year data in end-of-life capacity and financial planning. *The International Journal of Health Planning and Management* 334(4): e1533-e1543. https://doi.org/10.1002/hpm.2838 Jones R (2019) Austerity in the UK and poor health: were deaths affected? *BJHCM* 25(11): 337-347. Jones R (2020) How many extra deaths have really occurred in the UK due to the Covid-19 outbreak? III. Will excess deaths pass the record increase in 2015. http://www.hcaf.biz/2020/Covid_Excess_Deaths.pdf

Financial Risk in Healthcare http://www.hcaf.biz/financialrisk.html - see sections on deaths/admissions and small-area spatiotemporal patterns to understand the basis for the very high financial risk in healthcare

Jones R (2004) Financial risk in healthcare provision and contracts. *Proceedings of the 2004 Crystal Ball User Conference*, June 16-18th, 2004. Denver, Colarado, USA. http://www.hcaf.biz/Financial%20Risk/CBUC_FR.pdf

Jones R (2008) Financial risk in practice-based commissioning. *BJHCM* 14(5): 199-204. http://www.hcaf.biz/Financial%20Risk/FR_PBC_1.pdf Jones R (2008) Financial risk in health purchasing Risk pools. *BJHCM* 14(6): 240-245. http://www.hcaf.biz/Financial%20Risk/FR_PBC_2.pdf Jones R (2008) Financial risk at the PCT/PBC Interface. *BJHCM* 14(7): 288-293. http://www.hcaf.biz/Financial%20Risk/FR_PBC_3.pdf Jones R (2009) Emergency admissions and financial risk. *BJHCM* 15(7): 344-350. http://www.hcaf.biz/Recent/Emergency_Financial_Risk.pdf Jones R (2009) The actuarial basis for financial risk in practice-based commissioning and implications to managing budgets. *Primary Health Care Research & Development* 10(3): 245-253. https://doi.org/10.1017/S1463423609990089

Jones R (2010) What is the financial risk in GP Commissioning? British Journal of General Practice 60(578): 700-701.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930237/

Jones R (2010) Cyclic factors behind NHS deficits and surpluses. BJHCM 16(1): 48-50. http://www.hcaf.biz/2010/Surplus_Deficit_Cycle.pdf Jones R (2010) Do NHS cost pressures follow long-term patterns? BJHCM 16(4): 192-194. http://www.hcaf.biz/2010/USA_cost_cycles.pdf Jones R (2010) Nature of health care costs and financial risk in commissioning. BJHCM 16(9): 424-430. http://hcaf.biz/2010/Healthcare_Costs_1.pdf Jones R (2010) Trends in programme budget expenditure. BJHCM 16(11): 518-526. http://www.hcaf.biz/2010/Programme_Budget_Costs.pdf Jones R (2011) Cycles in inpatient waiting time. BJHCM 17(2): 80-81. http://www.hcaf.biz/2011/Waiting_time_cycles.pdf Jones R (2012) Time to re-evaluate financial risk in GP commissioning. BJHCM 18(1): 39-48. http://www.hcaf.biz/2012/reevaluate_risk.pdf Jones R (2012) Gender ratio and cycles in population health costs. BJHCM 18(3): 164-165. http://www.hcaf.biz/2012/Gender_ratio_cost_cycles.pdf Jones R (2012) Why is the 'real world' financial risk in commissioning so high? BJHCM 18(4): 216-217. http://www.hcafbiz/2012/Real_world_financial_risk.pdf Jones R (2012) Volatile inpatient costs and implications to CCG financial stability. BJHCM 18(5): 251-258. http://www.hcaf.biz/2012/Volatile_inpatient_costs.pdf Jones R (2012) Cancer care and volatility in commissioning, BJHCM 18(6): 315-324. http://www.hcaf.biz/2012/Cancer costs.pdf Jones R (2012) Gender and financial risk in commissioning. BJHCM 18(6): 336-337. http://www.hcaf.biz/2012/Gender_risk_commissioning.pdf Jones R (2012) End of life care and volatility in costs. BJHCM 18(7): 374-381. http://www.hcaf.biz/2012/End_of_life_risk_commissioning.pdf Jones R (2012) Age and financial risk in healthcare costs. BJHCM 18(7): 388-389. http://www.hcaf.biz/2012/Age_gender.pdf Jones R (2012) High risk categories and risk pooling in healthcare costs. BJHCM 18(8): 430-435. http://www.hcaf.biz/2012/PB_categories_high_risk.pdf Jones R (2012) Year-to-year volatility in medical admissions. BJHCM 18(8): 448-449. http://www.hcaf.biz/2012/Specialty_volatility.pdf Jones R (2012) Risk in GP commissioning: the loss ratio. BJHCM 18(11): 605-606. http://www.hcaf.biz/2012/FRGP_Loss_Ratio.pdf Jones R (2012) Financial risk in GP commissioning: lessons from Medicare. BJHCM 18(12): 656-657. http://www.hcaf.biz/2012/USA_Cost_Volatility.pdf Jones R (2013) Financial risk and volatile elderly diagnoses. BJHCM 19(2): 94-96. http://www.hcaf.biz/2013/Financial_risk_elderly_diagnoses.pdf Jones R (2013) Financial risk and volatile childhood diagnoses. BJHCM 19(3): 148-149. http://www.hcaf.biz/2013/Volatile_Childhood_Diagnoses.pdf Jones R (2013) Environmental volatility and healthcare costs. BJHCM 19(4): 198-199. http://www.hcaf.biz/2013/Environmental_volatility.pdf Jones R (2013) What every GP needs to know about financial risk in commissioning. General Practice Online http://www.pirgcomfamily_medsineGP_commissioning_isktmm Jones R (2013) The funding dilemma: a lagged cycle in cancer costs. BJHCM 19(12): 601-605. http://www.hcaf.biz/2013/Funding_dilemma_cancer.pdf Jones R (2014) Financial volatility in NHS contracts. BJHCM 20(10): 489-491. http://www.hcaf.biz/2014/Financial_Volatility_NHS_Contracts.pdf Jones R (2016) The real reason for the huge NHS overspend? BJHCM 22(1): 40-42. http://www.hcaf.biz/2016/NHS_Overspend.pdf Jones R (2019) Financial risk in health and social care budgets. BJHCM 25 (2): 79-84. http://www.hcaf.biz/2019/FRHSC.pdf Jones R (2019) The calendar year fallacy: The danger of reliance on calendar year data in actuarial calculations. International Journal of Health Planning and Management 34(4): e1533-e1543. https://doi.org/10.1002/hpm.2838

Jones R (2021). Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 1: Nearness to death, infectious outbreaks, and Covid-19. *Journal of Health Care Finance.* 47(3): http://www.healthfinancejournal.com/~junland/index.php/johcf/index Jones R (2021) Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 2: High population density is associated with enhanced year-to-year volatility in many aspects of poor health including health care worker sickness absence. *Journal of Health Care Finance.* 47(3): http://www.healthfinancejournal.com/~junland/index.php/johcf/index

Jones R (2021) Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 3: Outbreaks of a new type or kind of disease create unique risk patterns and confounds traditional trend analysis. *Journal of Health Care Finance*. 47(3): http://www.healthfinancejournal.com/~junland/index.php/johcf/index

Jones R (2021) Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 4: What size does a health insurer or health authority need to be to minimise risk? *Journal of Health Care Finance*. 47(3): http://www.healthfinancejournal.com/~junland/index.php/johcf/index

Outbreaks of a New Type of Infectious Immune Impairment Affecting Deaths and Medical Admissions (the World Health Organisation's Disease X?)

Jones R (2010) Unexpected, periodic and permanent increase in medical inpatient care: man-made or new disease. *Medical Hypotheses* 74: 978-83. doi: http://dx.doi.org/10.1016/j.mehy.2010.01.011

Jones R (2010) Can time-related patterns in diagnosis for hospital admission help identify common root causes for disease expression. *Medical Hypotheses* 75: 148-154. doi: http://dx. doi.org/10.1016/j.mehy.2010.02.009

Jones R (2010) The case for recurring outbreaks of a new type of infectious disease across all parts of the United Kingdom. *Medical Hypotheses* 75: 452-457. doi: http://dx. doi.org/10.1016/j.mehy.2010.04.023

Jones R (2013) Do recuring outbreaks of a type of infectious immune impairment trigger cyclic changes in the gender ratio at birth? *Biomedicine International* 4(1): 26-39. https://www.bmijournal.org/index.php/bmi/article/download/27/25

Jones R (2013) Widespread outbreaks of a subtle condition leading to hospitalization and death. *Epidemiology: Open access* 4(3): 137. doi: 10.4172/2161-1165.1000137

Jones R (2014) Unexpected single-year-of-age changes in the elderly mortality rate in 2012 in England and Wales. *Journal of Advances in Medicine and Medical Research* 4(16): 3196-3207. doi: 10.9734/BJMMR/2014/9072

Jones R (2015) Unexpected and Disruptive Changes in Admissions Associated with an Infectious-like Event Experienced at a Hospital in Berkshire, England around May of 2012. *Journal of Advances in Medicine and Medical Research* 6(1): 56-76. doi: 10.9734/BJMMR/2015/13938

Healthcare Analysis & Forecasting www.hcaf.biz

Supporting your commitment to excellence

Jones R (2015) A previously uncharacterized infectious-like event leading to spatial spread of deaths across England and Wales: Characteristics of the most recent event and a time series for past events. *Journal of Advances in Medicine and Medical Research* 5(11): 1361-1380. doi: 10.9734/BJMMR/2015/14285

Jones R (2015) Are emergency admissions contagious? *BJHCM* 21(5): 227-235. http://www.hcaf.biz/2015/Double_Epidemic.pdf Jones R (2015) Recurring outbreaks of an infection apparently targeting immune function, and consequent unprecedented growth in medical admission and costs in the United Kingdom: A review. *Brit J Med and Medical Research* 6(8): 735-770. doi: 10.9734/BJMMR/2015/14845

Jones R (2016) A presumed infectious event in England and Wales during 2014 and 2015 leading to higher deaths in those with neurological and other disorders. *Journal of Neuroinfectious Diseases* 7(1): 1000213 doi: 10.4172/2314-7326.1000213

Jones R (2017) A reduction in acute thrombotic admissions during a period of unexplained increased deaths and medical admissions in the UK. *European Journal of Internal Medicine* 46: e31-e33 doi: http://dx.doi.org/10.1016/j.ejim.2017.09.007

Jones R (2017) Age-specific and year of birth changes in hospital admissions during a period of unexplained higher deaths in England. *European Journal of Internal Medicine* 45: 2-4. doi: http://dx.doi.org/10.1016/j.ejim.2017.09.039

Jones R (2018) Periods of unexplained higher deaths and medical admissions have occurred previously – but were apparently ignored, misinterpreted or not investigated. *European Journal of Internal Medicine* 40: e18-e20. https://doi.org/10.1016/j.ejim.2017.11.004

Jones R (2018) Do outbreaks of 'Disease X' regulate NHS beds and costs? BJHCM 24(4): 204-205. http://www.hcaf.biz/2018/Beds_Disease_X.pdf Jones R (2018) Deaths in 2017 reached a new (unexpected) high. *BJHCM* 24(5): 256-257. http://www.hcaf.biz/2018/Deaths_2017.pdf Jones R (2019) Unusual international behaviour of deaths suggests a possible new kind of disease outbreak. Healthcare Analysis & Forecasting. Via SSRN http://ssrn.com/abstract=3364795

Jones R (2019) Why are deaths in the UK behaving in such a peculiar way? Healthcare Analysis & Forecasting. doi: 10.13140/RG.2.2.13685.42728

Small-Area Spatiotemporal Patterns in the Spread of a New Type or Kind of Infectious Disease (The WHO Disease X?)

Jones R (2013) A recurring series of infectious-like events leading to excess deaths, emergency department attendances and medical admissions in Scotland. *Biomedicine International* 4(2): 72-86. http://www.bmijournal.org/index.php/bmi/article/view/35

Jones R (2014) Infectious-like Spread of an Agent Leading to Increased Medical Admissions and Deaths in Wigan (England), during 2011 and 2012. Journal of Advances in Medicine and Medical Research 4(28): 4723-4741. doi: 10.9734/BJMMR/2014/10807

Jones R, Beauchant S (2015) Spread of a new type of infectious condition across Berkshire in England between June 2011 and March 2013: Effect on medical emergency admissions. *Journal of Advances in Medicine and Medical Research* 6(1): 126-148. doi: 10.9734/BJMMR/2015/14223 Jones R (2015) Simulated rectangular wave infectious-like events replicate the diversity of time-profiles observed in real-world running 12-month totals of admissions or deaths. *FGNAMB* 1(3): 78-79. doi: 10.15761/FGNAMB.1000114

Jones R (2015) A new type of infectious outbreak? *SMU Medical Journal* 2(1): 19-25. http://smu.edu.in/content/dam/manipal/smu/documents/Journal%20Issue%203/A%20New%20Type%20of%20Infectious%20Outbreak.pdf Jones R (2015) Small area spread and step-like changes in emergency medical admissions in response to an apparently new type of infectious event. *FGNAMB* 1(2): 42-54. doi: 10.15761/FGNAMB.1000110

Jones R (2015) Infectious-like spread of an agent leading to increased medical hospital admission in the North East Essex area of the East of England. *FGNAMB* 1(3): 98-111. doi: 10.15761/FGNAMB.1000117

Jones R (2015) A time series of infectious-like events in Australia between 2000 and 2013 leading to extended periods of increased deaths (all-cause mortality) with possible links to increased hospital medical admissions. *International Journal of Epidemiologic Research* 2(2): 53-67. http://ijer.skums.ac.ir/article_12869_2023.html

Jones R (2015) Deaths and international health care expenditure. *BJHCM* 21(10): 491-493. http://www.hcaf.biz/2015/Deaths_international.pdf Jones R (2016) A fatal flaw in mortality-based disease surveillance. *BJHCM* 22(3): 143-145. http://www.hcaf.biz/2016/Flaw_monitoring.pdf Jones R (2016) Deaths in English Lower Super Output Areas (LSOA) show patterns of very large shifts indicative of a novel recurring infectious event.

SMU Medical Journal 3(2): 23-36. https://pdfs.semanticscholar.org/c3aa/71a1b78e053cba4a871093dd43aa896d9ef6.pdf Jones R (2016) A regular series of unexpected and large increases in total deaths (all-cause mortality) for male and female residents of mid super output areas (MSOA) in England and Wales: How high-level analysis can miss the contribution from complex small-area spatial spread of a presumed infectious agent. *Fractal Geometry and Nonlinear Analysis in Medicine and Biology* 2(2): 1-13. doi: 10.15761/FGNAMB.1000129

Jones R (2017) Outbreaks of a presumed infectious agent associated with changes in fertility, stillbirth, congenital abnormalities and the gender ratio at birth. *Journal of Advances in Medicine and Medical Research* 20(8): 1-36. doi: 10.9734/BJMMR/2017/32372

Jones R (2017) Outbreaks of a presumed infectious pathogen creating on/off switching in deaths. *SDRP Journal of Infectious Diseases Treatment and Therapy* 1(1): 1-6. http://www.openaccessjournals.siftdesk.org/articles/pdf/Outbreaks-of-a-presumed-infectious-pathogen-creating-on-off-switching-in-deaths20170606102727.pdf Jones R (2017) Year-to-year variation in deaths in English Output Areas (OA), and the interaction between a presumed infectious agent and influenza in 2015. *SMU Medical Journal* 4(2): 37-69. http://smuedu.in/content/dam/manipal/smu/smims/Volume4No2July2017/SMU%20Med%20J%20QJuly%202017/%20%204.pdf Jones R (2017) Deaths and medical admissions – what is happening in the UK? *FGNAMB* 3(1): 1. doi: 10.15761/FGNAMB.1000143 Jones R (2018) Deaths and medical admissions in the UK show an unexplained and sustained peak after 2011. *European Journal of Internal Medicine* 47: e14-e16. DOI: http://dx.doi.org/10.1016/j.ejim.2017.09.021

Cytomegalovirus (CMV) and Human Disease

Jones R (2011) CMV and health care costs. *BJHCM* 17(4): 168-169.

Jones R (2013) Could cytomegalovirus be causing widespread outbreaks of chronic poor health? In *Hypotheses in Clinical Medicine*, pp 37-79, Eds M. Shoja, et al. New York: Nova Science Publishers Inc. Available from: http://www.hcaf.biz/2013/CMV_Read.pdf Jones R (2014) A Study of an Unexplained and Large Increase in Respiratory Deaths in England and Wales: Is the Pattern of Diagnoses Consistent with the Potential Involvement of Cytomegalovirus? *Journal of Advances in Medicine and Medical Research* 4(33): 5179-5192. doi: 10.9734/BJMMR/2014/11382

Jones R, Goldeck D (2014) Unexpected and unexplained increase in death due to neurological disorders in 2012 in England and Wales: Is cytomegalovirus implicated? *Medical Hypotheses* 83(1): 25-31. http://dx. doi.org/10.1016/j.mehy.2014.04.016

Jones R (2015) Roles for cytomegalovirus in infection, inflammation and autoimmunity. In *Infection and Autoimmunity*, 2nd Edition, Eds: N Rose, et al. Elsevier: Amsterdam. Chapter 18, pp 319-357. doi:10.1016/B978-0-444-63269-2.00068-4 Jones R (2015) An unexpected increase in adult appendicitis in England (2000/01 to 2012/13): Could cytomegalovirus (CMV) be a risk factor?

Journal of Advances in Medicine and Medical Research 5(5): 579-603. doi: 10.9734/BJMMR/2015/13302 Jones R (2016) Is cytomegalovirus involved in recurring periods of higher than expected death and medical admissions,

occurring as clustered outbreaks in the northern and southern hemispheres? *Journal of Advances in Medicine and Medical Research* 11(2): 1-31. doi: 10.9734/BJMMR/2016/20062

Jones R (2017) International outbreaks of a novel type of infectious immune impairment: A call to action. Досягнення біології та медицини (Achievements of Biology and Medicine - transl) 29(1): 75-81. http://files.odmu.edu.ua/biomed/2017/01/d171_75.pdf

Jones R (2017) Outbreaks of a Presumed Infectious Agent Associated with Changes in Fertility, Stillbirth, Congenital Abnormalities and the Gender Ratio at Birth. *British Journal of Medicine & Medical Research*, 20(8): 1-36. Doi: 10.9734/BJMMR/2017/32372

Limitations of the Healthcare Resource Group (HRG) Tariff - This is intrinsically linked to financial risk (see above)

Jones R (2008) Limitations of the HRG tariff: excess bed days. BJHCM 14(8): 354-355. http://www.hcaf.biz/Recent/Tariff_Limitations_1.pdf Jones R (2008) Limitations of the HRG tariff: day cases. BJHCM 14(9): 402-404. http://hcaf.biz/Recent/Limitations_DC.pdf Jones R (2008) A case of the emperor's new clothes? BJHCM 14(10): 460-461. http://hcaf.biz/Recent/Tariff_3.pdf Jones R (2008) Limitations of the HRG tariff: the trim point. BJHCM 14(11): 510-513. http://hcaf.biz/2010/Tariff_Trim_Point.pdf Jones R (2008) Costing orthopaedic interventions. BJHCM 14(12): 539-547. http://hcaf.biz/2010/Costing_Orthopaedic_Interventions.pdf Jones R (2009) Limitations of the HRG tariff: efficiency comparison. BJHCM 15(1): 40-43. http://www.hcaf.biz/Recent/Tariff_efficiency.pdf Jones R (2009) Limitations of the HRG tariff: the RCL BJHCM 15(2): 92-95. http://www.hcaf.biz/Recent/Tariff_RCLpdf Jones R (2009) Limitations of the HRG tariff: local adjustments. BJHCM 15(3): 144-147. http://hcaf.biz/2010/Tariff_Local_Adjustments.pdf Jones R (2010) A maximum price tariff. BJHCM 16 (3): 146-147. http://hcaf.biz/2010/Maximum_price_tariff.pdf Jones R (2010) Nature of health care costs and the HRG tariff. BJHCM 16(9): 451-452. http://hcaf.biz/2010/Healthcare_Costs_2.pdf Jones R (2010) Emergency assessment tariff: lessons learned. BJHCM 16(12): 574-583. http://hcaf.biz/2010/Assessment_Unit_Tariff.pdf Jones R (2010) High efficiency or unfair financial gain? BJHCM 16(12): 585-586. http://hcaf.biz/2010/Emergency_RCI.pdf Jones R (2010) Is the HRG tariff fit for purpose? nhsManagers.net: Managers Briefing http://hcaf.biz/2010/HRG_Fit_For-Purpose.pdf Jones R (2011) Impact of the A&E targets in England. BJHCM 17(1): 16-22. http://www.hcaf.biz/Recent/Costing_A&E_attendances.pdf Jones R (2011) Costs of paediatric assessment. BJHCM 17(2): 57-63. http://hcaf.biz/2011/Costing_Paediatric_Assessment.pdf Jones R (2011) Is the short stay emergency tariff a valid currency? BJHCM 17(10): 496-497. http://hcaf.biz/2011/Valid_Currency.pdf Jones R (2011) Limitations of the HRG tariff: the national average. BJHCM 17(11): 556-557. http://hcaf.biz/2011/Limitations_annual_average.pdf Jones R (2011) Limitations of the HRG tariff: gross errors. BJHCM 17(12): 608-609. http://hcaf.biz/2011/Limitations_gross_errors.pdf Jones R (2012) Is the Health Resource Group (HRG) tariff fit for purpose? BJHCM 18(1): 52-53. http://hcaf.biz/2012/Fit_for_purpose.pdf Jones R (2012) Limitations of the HRG tariff. Healthcare Analysis & Forecasting, http://hcaf.biz/2012/Limitations HRG tariff.pdf Jones R (2013) A guide to maternity costs - why smaller units cost more. British Journal of Midwifery 21(1): 54-59. https://www.magonlinelibrary.com/doi/abs/10.12968/bjom.2013.21.1.54

Funding & the Funding Formula, also see the 'Benchmarking' series http://www.hcaf.biz/forecastingdemand.html *This is intrinsically linked to financial risk (see above)*

Jones R (1994) GP Fundholding: Readies reckoner. Health Service Journal 104 (10th Feb): 31.

Jones R (2011) Infectious outbreaks and the capitation formula. *BJHCM* 17(1): 36-38. http://www.hcaf.biz/2010/Outbreak_capitation.pdf Jones R (2013) A fundamental flaw in person-based funding. *BJHCM* 19(1): 32-38. http://www.hcaf.biz/2013/Person_Based_Funding.pdf Jones R (2013) Population density and healthcare costs. *BJHCM* 19(1): 44-45. http://www.hcaf.biz/2013/Population_Density.pdf Jones R, Kellet J (2018) The way healthcare is funded is wrong: it should be linked to deaths as well as age, gender and social deprivation. *Acute Medicine* 17(4): 189-193. See http://cutemedjournal.couk/original-articles/the-way-healthcare-is-funded-is-wrong-it-should-be-linked-to-deaths-as-well-as-age-gender-and-social-deprivation/ Jones R (2021) Multidisciplinary insights into health care financial risk and hospital surge capacity, Part 4: What size does a health insurer or health authority need to be to minimise risk? *Journal of Health Care Finance.* 47(3): http://www.healthfinancejournal.com/~junland/index.php/johct//index

Data Quality

Jones R (1995) Check your outpatient data. Fundholding 4(6): 24-25.

Jones R (1996) Getting the best from hospital patient information. Healthcare Analysis & Forecasting, UK. http://www.hcaf.biz/Recent/Handbook.pdf Jones R (2007) A level playing field? A discussion document for PCT's exploring the implications of how events get counted at acute trusts. Healthcare Analysis & Forecasting, UK. http://www.hcaf.biz/For%20PCTs/Microsoft%20Word%20-%20Level%20playing%20field.pdf

Dr Rodney Jones has 30-years' experience in health care demand forecasting, capacity planning and financial risk in health care purchasing. He provides capacity and demand forecasting advice to healthcare organisations, see www.hcaf.biz

He has published over 250 papers on these topics. His 'Research Interest' score places him in the top 2.5% of international researchers out of 20+ million Research Gate members. His papers have over 6,000 citations https://www.researchgate.net/profile/Rodney_Jones.

Researcher ID: D-2972-201; ORCHID ID: 0000-0002-4810-7638

Dr Rodney Jones can be contacted at: hcaf_rod@yahoo.co.uk or 07890 640399

Biotechnology Publications

Jones R, Greenfield P. The potential for fuel alcohol production from cellulose. Department of Chemical Engineering, University of Queensland., 1980. A report to the Queensland Government, Department of Trade and Industry. Jones R, Pamment N, Greenfield P. Alcohol fermentation by yeast - the effect of environment and other variables. Process Biochemistry 1981; 16(3): 42-49. Jones R, Greenfield P. Batch ethanol production with dual organisms. Biotechnology Letters 1981; 3(5): 225-30. Jones R, Greenfield P. Effects of carbon dioxide on yeast growth and fermentation. Enzyme and Microbial Technology 1982; 4(4): 210-23. Jones R, Greenfield P. A review of yeast ionic nutrition - growth and fermentation requirements. Process Biochemistry 1984; 19, 48-60. Jones R, Greenfield P. Kinetics of yeast apparent cell death induced by ethanol. Biotechnology Letters 1984; 6(6): 461-71. Jones R, Greenfield P. Replicative inactivation and metabolic inhibition in yeast ethanol fermentations. Biotechnology Letters 1985; 7(4): 223-28 Jones R. Ethanol-environment interactions influencing fermentative yeast growth. PhD thesis, University of Queensland., 1985. Jones R, Greenfield P. Role of water activity in ethanol fermentations. Biotechnology and Bioengineering 1986; 28(1): 29-40. Jones R. Effect of relative concentration of ion species on yeast growth and ethanol production. Process Biochemistry 1986; 21, 183-87 Jones R, Greenfield P. Ethanol and the fluidity of the yeast plasma membrane. Yeast 1987; 3(4): 223-32. Jones R, Greenfield P. Specific and non-specific inhibitory effects of ethanol on yeast growth. Enzyme and Microbial Technology 1987; 9(6): 334-8. Jones R. Factors influencing the deactivation of yeast cells exposed to ethanol. Journal of Applied Bacteriology 1987; 63(2): 153-64. Jones R. Measures of yeast death and deactivation and their meaning. Process Biochemistry 1987; 22(4): 118-128. Jones R. Intracellular ethanol accumulation and exit from yeast and other cells. FEMS Microbiology Letters 1988; 54(8): 239-58 Jones R. Biological principles for the effects of ethanol. Enzyme and Microbial Technology 1989; 11(3): 130-153. Jones R. Roles for replicative deactivation in yeast-ethanol fermentations. Critical Reviews in Biotechnology 1990; 10(3): 205-22 Jones R, Gadd G. Ionic nutrition of yeast - physiological mechanisms involved and implications for biotechnology.

Enzyme and Microbial Technology 1990; 12(6): 402-418.