

Centre for the Mathematical Modelling of Infectious Diseases,
Department of Infectious Disease Epidemiology,
Faculty of Epidemiology and Population Health,
London School of Hygiene and Tropical Medicine,
Keppel Street, London, WC1E 7HT. UK

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Richard Guy White

Work interests

Mathematical and statistical modelling of the transmission and control of infectious diseases

Education

MSc Statistics modules: Statistical Inference & Statistical Computing. 2009-10. Dept of Statistical Science, UCL, London

PhD Variability in the effectiveness of STI treatment interventions to prevent HIV transmission in Eastern and Southern Africa. May 2006. London School of Hygiene and Tropical Medicine, University of London, UK

MSc Medical Demography 1996/7 LSHTM, University of London, UK

BSc Physics (Honours) 1989/92 St. Aidan's College, Durham University, UK

Professional experience

Senior Lecturer in Infectious Disease Modelling Sept '08 – current and **MRC Methodology Research Fellow** Sept '09 – current. Department of Infectious Disease Epidemiology, Faculty of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, UK. Current research projects include: *Calibration & analysis of complex models: methodological development & application to explore the impact of ART in Africa; Improving tuberculosis control in high HIV prevalence settings; Respondent-driven sampling: Empirical evaluation and methodological development; Predicting the impact of HPV vaccination on cervical cancer: the interaction with screening; Modelling HPV transmission & control in Europe & the UK.*

Lecturer in Infectious Disease Modelling June '03 – Oct '08. Department of Infectious Disease Epidemiology, Faculty of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, UK. Research projects included: *The transmission and control of HIV in adolescents in Africa; Modelling HIV transmission and control in Uganda; Improving tuberculosis control in high HIV prevalence settings.*

Research Fellow in Modelling HIV and STI Feb '99 to May '03. IDEU, EPH, LSHTM, London, UK. Main project: *The impact and cost-effectiveness of HIV prevention strategies in Africa.*

Research Assistant April '98 – Jan '99. Centre for Population Studies, LSHTM London, UK. Work included: secondary analysis of Global Program on AIDS surveys; design, coding and interpretation of a microsimulation model to investigate the decline of primary infertility in Africa.

Operations Manager 10/97-04/98. Pareto Partners, London. Financial modelling

MSc Dissertation (Distinction) Sept'1996-Aug'97. Centre for Population Studies, LSHTM London, UK. *Modelling primary sterility decline in West Africa.*

Computer consultant 1992-1996 MicroArt, Cambridge and FMI, London.

National Environmental Research Council Studentship 1992 British Antarctic Survey Cambridge, UK. Biological productivity of the waters around South Georgia, Southern Ocean.

Undergraduate research 1992 Durham University, Durham, UK. Exploring radiation emitted by materials in varying meteorological conditions.

Research Assistant 1988 British Antarctic Survey, Cambridge, UK. Sonic radar project exploring meteorological conditions in the Antarctic.

Honours and awards

2009: MRC Methodology Research Fellowship

1997: MSc Dissertation Distinction

Citation metrics

Total citations: 491 (ResearcherID) 1120 (Google scholar)

h-index: 13 (ResearcherID) 18 (Google scholar)

i10-index: 28 (Google scholar)

www.researcherid.com/rid/D-5407-2009

<http://scholar.google.com/citations?user=pokWWYkAAAAJ>

RESEARCH

Books

Vynnycky E., **WHITE R.G.** (2010) *An Introduction to Infectious Disease Modelling*. Oxford University Press. 368 pages. ISBN: 0198565763.

Book chapters

WHITE, R., B. Zaba, T. Boerma and J. Blacker (2001). *Modelling the dramatic decline of primary sterility in SSA*. In: *Women and Infertility in Africa: A multi-disciplinary perspective*. T. Boerma & Z. Mgalla. Amsterdam, Royal Tr. Institute.

Peer reviewed articles in journals

In press

Dodd, P. J., **R. G. WHITE** and E. L. Corbett. "Periodic active case finding for TB: when to look?" PLoS One

McCreesh, N., S. D. Frost, J. Seeley, J. Katongole, M. Ndagire-Tarsh, R. Ndungutse, F. Jichi, N. Tilson, L. G. Johnson, D. Maher, P. Sonnenberg, A. Copas, R. J. Hayes and **R. G. WHITE** (2012). "Evaluation of Respondent-Driven Sampling." *Epidemiology*.

Published

2011

Kranzer, K., J. J. Lewis, **R. G. WHITE**, J. R. Glynn, S. D. Lawn, K. Middelkoop, L. G. Bekker and R. Wood (2011). "Antiretroviral treatment cohort analysis using time-updated CD4 counts: assessment of bias with different analytic methods." *PLoS ONE* 6(11): e27763.

Orroth, K. K., **R. G. WHITE**, E. E. Freeman, R. Bakker, A. Buve, J. R. Glynn, J. D. Habbema and R. J. Hayes (2011). "Attempting to explain heterogeneous HIV epidemics in sub-Saharan Africa: potential role of historical changes in risk behaviour and male circumcision." *STI* 87(7): 640-5.

McCreesh, N., L. G. Johnston, A. Copas, P. Sonnenberg, J. Seeley, R. J. Hayes, S. D. Frost and **R. G. WHITE** (2011). "Evaluation of the role of location and distance in recruitment in respondent-driven sampling." *Int J Health Geogr* 10: 56.

Punyacharoensin, N., W. J. Edmunds, D. De Angelis and **R. G. WHITE** (2011). "Mathematical models for the study of HIV spread and control amongst men who have sex with men." *European Journal of Epidemiology* 26(9): 695-709.

Shafer, L. A., R. N. Nsubuga, **R. G. WHITE**, B. N. Mayanja, R. Chapman, K. O'Brien, L. Van de Paal, H. Grosskurth and D. Maher (2011). "Antiretroviral Therapy and Sexual Behavior in Uganda: a Cohort Study." *AIDS*.

Schmidt, W.-P., M. Suzuki, V. Dinh Thiem, **R. G. WHITE**, A. Tsuzuki, L.-M. Yoshida, H. Yanai, U. Haque, L. Huu Tho, D. D. Anh and K. Ariyoshi (2011). "Population Density, Water Supply, and the Risk of Dengue Fever in Vietnam: Cohort Study and Spatial Analysis." *PLoS Med* 8(8): e1001082.

Métrás, R., L. M. Collins, **R. G. WHITE**, S. Alonso, V. Chevalier, C. Thurairaja-McKeever and D. U. Pfeiffer (2011). "Rift Valley fever epidemiology, surveillance and control: What have models contributed?" *Vector-Borne and Zoonotic Diseases* 11(6): 761-771.

Cox AP, Foss AM, Shafer LA, Nsubuga RN, Vickerman P, Hayes RJ, Watts C and **WHITE, RG** (2011). "Attaining realistic and substantial reductions in HIV incidence: model projections of combining microbicide and male circumcision interventions in rural Uganda." *STI*.

Vanni T, Karnon J, Madan J, **WHITE, RG**, Edmunds WJ, Foss AM, Legood, R. Calibrating Models in Economic Evaluation A Seven-Step Approach. *PharmacoEconomics*. 2011 ;29(1):35-49.

2010

Shafer, L. A., **R. G. WHITE**, R. N. Nsubuga, R. Chapman, R. Hayes and H. Grosskurth (2010) "The role of the natural epidemic dynamics and migration in explaining the course of the HIV epidemic in rural Uganda: a modelling study." *International Journal of Epidemiology*. IJE

Santhakumaran, S., K. O'Brien, R. Bakker, T. Ealden, L. A. Shafer, R. Daniel, R. Chapman, R. Hayes and **R. G. WHITE** (2010). "Polygyny and symmetric concurrency: comparing long-duration sexually transmitted infection prevalence using simulated sexual networks." *STI*.

Baggaley RF, **WHITE RG**, Boily M- C. *HIV transmission risk through anal intercourse: systematic review, meta-analysis and implications for HIV prevention*. *Int J Epidemiol* 2010;dyq057.

Chapman, R., **R. G. WHITE**, L. A. Shafer, A. Pettifor, O. Mugurungi, D. Ross, S. Pascoe, F. M. Cowan, H. Grosskurth, A. Buve and R. J. Hayes (2010). "Do behavioural differences help to explain variations in HIV prevalence in adolescents in sub-Saharan Africa?" *TMIH* 15(5): 554-566.

Voeten, H. A., D. C. Vissers, S. Gregson, B. Zaba, **R. G. WHITE**, S. J. De Vlas and J. D. F. Habbema (2010). "Strong Association between In-migration and HIV Prevalence in Urban Sub-

Saharan Africa." *STD* 37(4): 240-3.

2009

WHITE, R. G. (2009). "Curable sexually transmitted infection treatment interventions to prevent HIV transmission in sub-Saharan Africa." *Open Infectious Diseases Journal* 3: 148-155.

Kenyon, C., S. Dlamini, A. Boule, **R. G WHITE** and M. Badri (2009). "A network-level explanation for the differences in HIV prevalence in South Africa's racial groups." *African Journal of AIDS Research* 8(3): 243-254.

UNAIDS/WHO/SACEMA Expert Group on Modelling the Impact and Cost of Male Circumcision for HIV Prevention (Hankins, C; Hargrove, J; Williams, B; Abu Raddad, L; Auvert, B; Bollinger, L; Dorrington, R; Ghani, A; Gray, R; Hallett, T; Kahn, JG; Lohse, N; Nagelkerke, N; Porco, T; Schmid, G; Stover, J; Weiss, H; Welte, A; White, P; **WHITE, RG**). *Male Circumcision for HIV Prevention in High HIV Prevalence Settings: What Can Mathematical Modelling Contribute to Informed Decision Making?* *PLoS Med* 2009;6(9):e1000109.

Freeman, E. E., **R. G. WHITE**, R. Bakker, K. K. Orroth, H. A. Weiss, A. Buve, R. J. Hayes and J. R. Glynn (2009). "Population-level effect of potential HSV2 prophylactic vaccines on HIV incidence in sub-Saharan Africa. <http://dx.doi.org/10.1016/j.vaccine.2008.11.074> " *Vaccine* 27: 940-946.

Boily, M. C., R. F. Baggaley, L. Wang, B. Masse, **R. G. WHITE**, R. J. Hayes and M. Alary (2009). "Heterosexual risk of HIV-1 infection per sexual act: a systematic review and meta-analysis of observational studies." *Lancet Infectious Diseases* 9(2): 118-29.

2008

WHITE, R. G., J. R. Glynn, K. K. Orroth, E. E. Freeman, R. Bakker, H. A. Weiss, L. Kumaranayake, J. D. F. Habbema, A. Buve and R. J. Hayes (2008). "Male circumcision for HIV prevention in sub-Saharan Africa: who, what and when?" *AIDS* 22(14): 1841-1850.

WHITE, R. G., K. K. Orroth, J. R. Glynn, E. E. Freeman, R. Bakker, J. D. F. Habbema, F. Terris-Prestholt, L. Kumaranayake, A. Buve and R. J. Hayes (2008). "Treating curable Sexually Transmitted Infections to Prevent HIV in Africa: Still an Effective Control Strategy?" *J Acquir Immune Defic Syndr* 47: 346-353.

WHITE, R. G., E. E. Freeman, K. K. Orroth, R. Bakker, H. A. Weiss, N. O'Farrell, A. Buve, R. J. Hayes and J. R. Glynn (2008). "Population-level effect of HSV-2 therapy on the incidence of HIV in sub-Saharan Africa." *STI* 84(S2): 12-18.

WHITE, R. G., P. Moodley, N. McGrath, V. Hosegood, B. Zaba, K. Herbst, M. L. Newell, W. A. Sturm and R. J. Hayes (2008). "Low effectiveness of syndromic treatment services for curable sexually transmitted infections in rural South Africa." *Sex Transm Infect* 84(7): 528-534.

Baggaley, R. F., **R. G. WHITE** and M. C. Boily (2008). "Systematic review of orogenital HIV-1 transmission probabilities." *International Journal of Epidemiology* doi:10.1093/ije/dyn151.

Hallett, T. B., K. J. Singh, J. A. Smith, **R. G. WHITE**, L. Abu-Raddad and G. P. Garnett (2008). "Understanding the Impact of Male Circumcision Interventions on the Spread of HIV in Southern Africa." *PLoS ONE* 3(5): e2212.

Schmidt, W. P., V. L. M. Schim, P. Aaby, H. Whittle, R. Bakker, M. Buckner, F. Dias and **R. G. WHITE** (2008). "Behaviour change and competitive exclusion can explain the diverging HIV-1 and HIV-2 prevalence trends in Guinea-Bissau." *Epidemiol Infect* 136(4): 551-561.

Mwita, W., J. Chilongani, **R.G. WHITE**, G. Mshana, J. Changalucha, F. Moshia, D. Ross, B. Zaba and J. Todd (2008). "Has the HIV epidemic in rural Mwanza, Tanzania reached a plateau?" *Tanzan J Health Res* 10(3): 117-23.

2007

WHITE, R. G., B. S. Cooper, A. Kedhar, K. K. Orroth, S. Biraro, R. F. Baggaley, J. Whitworth, E. L. Korenromp, A. Ghani, M.-C. Boily and R. J. Hayes (2007). "Quantifying HIV-1 transmission due to contaminated injections." *Proc Natl Acad Sci U S A* 104(23): 9794-9.

WHITE, R. G., E. Vynnycky, J. R. Glynn, A. C. Crampin, A. Jahn, F. Mwaungulu, O. Mwanyongo, H. Jabu, H. Phiri, N. McGrath, B. Zaba and P. E. Fine (2007). "HIV epidemic trend and antiretroviral treatment need in Karonga District, Malawi." *Epidemiol Infect* 135(6): 922-32.

Whitworth, J. A., S. Biraro, L. A. Shafer, L. Morison, M. Quigley, **R. G. WHITE**, B. Mayanja, A. Ruberantwari and L. Van der Peal (2007). "HIV incidence and recent injections among adults in rural southwestern Uganda." *AIDS* 21(8): 1056-8.

WHITE, R. G., C. Hall and B. Wolff (2007). *Period and Cohort Dynamics in Fertility Norms at the Onset of the Demographic Transition in Kenya 1978-1998.* *J Biosoc Sci* 39(3): 443-454.

Freeman, E., K. Orroth, **R. G. WHITE**, J. R. Glynn, R. Bakker, M.-C. Boily, D. Habbema, A. Buve

and R.J. Hayes (2007). "The proportion of new HIV infections attributable to HSV-2 increases over time: simulations of the changing role of STIs in sub-Saharan African HIV epidemics." *STI* 83:17-24.

Orroth, K. K., E. Freeman, R. Bakker, A. Buve, J. Glynn, M.-C. Boily, **R. G. WHITE**, J. D. F. Habbema and R. J. Hayes (2007). "Understanding differences across the contrasting epidemics in East and West Africa: results from a simulation model of the Four Cities Study." *STI* 83: 5-16.

2006

Orroth, K. K., **R. G. WHITE**, E. L. Korenromp, R. Bakker, J. Changalucha, J. D. Habbema and R. J. Hayes (2006). "Empirical observations underestimate the proportion of human immunodeficiency virus infections attributable to sexually transmitted diseases in the Mwanza and Rakai sexually transmitted disease treatment trials: Simulation results." *Sex Transm Dis* 33(9): 536-44.

Baggaley, R. F., M. C. Boily, **R. G. WHITE**, and M. Alary (2006). *Risk of HIV-1 transmission for parenteral exposure and blood transfusion - a systematic review and meta-analysis.* *AIDS* 20(6): 805-812.

2005

Korenromp, E. L., **R. G. WHITE**, K. K. Orroth, R. Bakker, A. Kamali, D. Serwadda, R. H. Gray, H. Grosskurth, J. D. Habbema and R. J. Hayes (2005). *Determinants of the Impact of Sexually Transmitted Infection Treatment on Prevention of HIV Infection: A Synthesis of Evidence from the Mwanza, Rakai, and Masaka Intervention Trials.* *J Infect Dis* 191(Suppl 1): S168-78.

2004

WHITE, R. G., K. K. Orroth, E. L. Korenromp, R. Bakker, M. Wambura, N. K. Sewankambo, R. H. Gray, A. Kamali, J. A. Whitworth, H. Grosskurth, J. D. Habbema and R. J. Hayes (2004). *Can Population Differences Explain the Contrasting Results of the Mwanza, Rakai, and Masaka HIV/Sexually Transmitted Disease Intervention Trials?: A Modeling Study.* *JAIDS* 37(4): 1500-1513.

2003

Orroth, K., E. Korenromp, **R. WHITE**, A. Gavyole, R. Gray, L. Muhangi, N. Sewankambo, M. Quigley, M. Wawer, J. Whitworth, H. Grosskurth, J. Habbema and R. Hayes (2003). *Higher risk behaviour and rates of sexually transmitted diseases in Mwanza compared to Uganda may help explain HIV prevention trial outcomes.* *AIDS* 17(18): 2653-2660.

Orroth, K., E. Korenromp, **R. WHITE**, J. Changalucha, S. De Vlas, R. Gray, P. Hughes, A. Kamali, A. Ojwiya, D. Serwadda, M. Wawer, R. Hayes and H. Grosskurth (2003). *Comparison of STD Prevalences in the Mwanza, Rakai and Masaka Trial Populations: The Role of Selection Bias and Diagnostic Errors.* *Sex Transm Infect* 79(2): 98-105.

2002

Stewart, H., L. Morison and **R. WHITE** (2002). *Determinants of coital frequency among married women in Central African Republic: The role of female genital cutting.* *Journal of Biosocial Science* 34(4): 525-539.

2000

WHITE, R., J. Cleland and M. Carael (2000). *Links between premarital sexual behaviour and extramarital intercourse: a multi-site analysis.* *AIDS* 14: 2323-2331.

Zaba, B., T. Boerma and **R. WHITE** (2000). *Monitoring the AIDS epidemic using HIV prevalence data among young women attending antenatal clinics: prospects and problems.* *AIDS* 14: 1633-1645.

Editorials, commentaries, letters and abstracts

In press

Hayes, R. and **R. WHITE** (In press). "Comment on Powers et al "The role of acute and early HIV infection in the spread of HIV and implications for transmission prevention strategies in Lilongwe, Malawi: a modelling study" [Letter]." *Lancet*.

Published

Baggaley, R., **R. G. White** and M. C. Boily (2010). "Infectiousness of HIV-infected homosexual men in the era of highly active antiretroviral therapy [Letter]." *AIDS* 24(15): 2418-2420.

Vanni, T., R. Legood and **R. G. WHITE** (2010). "Calibration of Disease Simulation Model Using an Engineering Approach [Letter]." *Value in Health* 13(1): 157.

Kretzschmar, M., **R. G. WHITE** and M. Carael (2010). "Concurrency is more complex than it

seems [Editorial]." AIDS 24: 313-315.

WHITE, R. G., C. Celum, J. N. Wasserheit, S. Aral and R. J. Hayes (2008). "Control of sexually transmitted infections for HIV prevention." [Letter] Lancet 372(9646): 1297.

Whitworth, J. A., S. Biraro, L. A. Shafer, L. Morison, M. Quigley, **R. G. WHITE**, B. Mayanja, A. Ruberantwari and L. Van der Paal (2007). "Confusing association with causation?, a response to Brewer et al., 'Valid evaluation of iatrogenic and sexual HIV transmission requires proof'." [Letter] AIDS 21(18): 2558-9.

Orroth, K. K., **R. G. WHITE** and R. J. Hayes (2007). "Empirical observations underestimate the proportion of HIV infections attributable to sexually transmitted diseases in Mwanza and Rakai STD treatment trials: Simulation results - Response to Gray's letter [Letter]." STD 34(1): 62.

Hayes, R. J. and **R. G. WHITE** (2006). *How Important Are Unsafe Medical Injections in the Spread of HIV in Africa?* [Editorial] STD 33(3): 135-136.

Hayes, R. J. and **R. G. WHITE** (2006). *Amplified HIV Transmission during Early-Stage Infection.* [Letter] *J Infect Dis* **193**: 604-5.

WHITE, R.G. (2003). *What can we make of an association between human immunodeficiency virus prevalence and population mobility?* [Commentary] *International Journal of Epidemiology* **32**(753-754).

Boily, M. C., **R. G. WHITE**, M. Alary, C. Lowndes and K. Orroth (2003). *Transmission of HIV via unsafe injection or unsafe sex? Anomalies or Misunderstanding?* [Letter] *Int J STD AIDS* **15**: 61-62.

Orroth, K., E. Korenromp, **R. WHITE**, A. Kamali, D. Serwadda, N. Sewankambo, J. Whitworth, H. Grosskurth, J. Habbema and R. Hayes (2001). *Higher risk behaviours and STD rates in Tanzania compared to Uganda - Contribution to different outcomes of STD treatment trials?* [Abstract]. *Int J of STD & AIDS* **12**: 172.

WHITE, R., E. Korenromp, K. Karter, H. Grosskurth, C. Van Vliet, R. Bakker, S. Foster, R. Hayes and J. Habbema (2000). The impact and cost-effectiveness of HIV prevention strategies in Sub-Saharan Africa: Comparative analysis of four intervention strategies in three randomised trials; *STI* **27**(10): 649.

Non-peer
reviewed
reports, and
policy briefings

WHITE, R. G. and R. J. Hayes (2006). *Preventing HIV infection by treating sexually transmitted infections*, ID21 Health

WHITE, R. G. (2005). *Male circumcision snippets: HIV/AIDS & STI NEWS #10*. London: 2-3

WHITE, R.G., A. Kedhar, K.K. Orroth, S. Biraro, R.F. Baggaley, J. Whitworth, E.L. Korenromp, M.C. Boily, and R.J. Hayes, *The proportion of HIV incidence due to unsafe injections, unsafe blood transfusions and mother to child transmission in rural Masaka, Uganda*. 2004, UNAIDS Reference Group on Estimates, Modelling and Projection: Geneva. p. 29.

Baggaley, R. F., M. C. Boily, **R. G. WHITE** and A. Alary (2004). *Systematic review of HIV-1 transmission probabilities: in absence of antiretroviral therapy*. Geneva, UNAIDS Reference Group on Estimates, Modelling and Projection: 72.

Vynnycky, E. and **R. G. WHITE** (2004). *Introducing Infectious Disease Modelling and its Applications to infectious disease researchers*. *Eur J Pub. Health* **14**(4): 32.

Vynnycky E, Glynn J, Crampin A, Mwaungulu F, **WHITE R G**, Fine P. *The impact of the HIV epidemic on tuberculosis in Keronga District, Malawi: analyses of the evolving risk of tuberculosis associated with HIV infection*. In: Tuberculosis Surveillance Research Unit Progress Report; 2004:50 - 68.

Research
Funding

Calibration and analysis of complex models: methodological development and application to explore the impact of HAART in Africa; £640,102; 2011-2014. PI: **WHITE**, Co-inv: Oakley (Sheffield), Kaleebu (Uganda), Wood (Cambridge), Goldstein (Durham), Edmunds, Hayes.

Predicting the impact of HPV vaccination on cervical cancer: the interaction with screening. CR-UK. £309,444. 1 July 2011 to 30 June 2014. PI: Edmunds. Co-Inv: **WHITE** et al.

PREHDICT, health-economic modelling of PREvention strategies for Hpv-related Diseases in European Countries (Impact of HPV vaccination on HPV screening in Europe). EU FP7.(242061). Total: ~€2M, LSHTM: £264,107. 1/5/10-30/4/13. PI: Prof. C. Meijer, VU Uni. Medical Centre, Amsterdam. Co-A: Edmunds, **WHITE** et al.

Respondent-driven sampling: empirical evaluation and methodological development. MRC Research Methodology Fellowship. (G0802414) £424,404. Sept '09 for 4 years. PI: **WHITE**. Sponsors: LSHTM: Hayes; UCL: Sonnenberg, Copas; Cambridge Uni: Frost; Mentor: Prof Whitworth (Wellcome). Collaborators: Vivian Hope, HPA; LSHTM: Hickman; UCL: Prof Hart; Bristol:

Hinckman; University of Pittsburgh: Prof Stall; Tulane school of Public Health/CDC: Dr Johnson; MRC/UVRI Uganda Research Unit on AIDS: Prof Grosskurth.

Improving tuberculosis control in Africa: mathematical modeling of CREATE and associated intervention trials. Gates (subcontract from JHU). (19790.01) \$968,819.1/9/07-1/8/11. PI: **WHITE**. Co-A: Corbett, Hayes, Vynnycky, et al.

Modelling of interventions for STI/HIV control among sex workers. WHO. €17,700. 1/12/06-31/1/07. Principal applicant: **WHITE**. Co-A: Hayes.

HIV control in a new era: Exploring the potential impact of alternative intervention strategies in Uganda. MRC, UK(G0501499). £467,000; 1/7/06 for 3 years. PA: Hayes. Co-A: **WHITE**, Ghani, et al.

A study to investigate the epidemiology of HIV infection among adolescents in Africa and to inform prevention strategies using epidemiological data and mathematical models. Wellcome(GR078499MA). £311,383; 1/5/06 for 3 years; PI: Hayes. Co-A: **WHITE**, Ghani et al.

Karonga Prevention Study: HIV And Infectious Disease Control In A Rural African Population. Wellcome Trust; ~£5,000,000; '06-'11; Principal applicant: N French. Collaborator: **WHITE** et al.

Estimating the impact of unsafe injections on HIV prevalence in East Africa using simulation modelling. UNAIDS. US\$13,320. 1/2004-3/2004. PI: **WHITE**.

Modelling HIV transmission dynamics in four African cities with contrasting HIV/ STI epidemiology; Wellcome(069509/Z/02/Z); ~£100,000; 1/1/03 for 2 years; PI: Hayes; Collaborator: **WHITE**.

PhD Funding

Rift Valley Fever: a mathematical and spatial modelling approach to understanding disease dynamics. Bloomsbury PhD Studentship. Supervisor: **WHITE**, Co-supervisor: Dirk Pfeiffer (Royal Vet College, London)

Teaching/ research supervision/ citizenship

Co-organise and teach on the MSc study module *Introduction to Modelling and the Dynamics of Infectious Diseases* (2001-current) and summer short course *Introduction to Infectious Disease Modelling and Its Applications* (2002-current).

Examination duties, including external examining: Modelling study unit and final examination marking for MSc Epidemiology.

PhD examiner for University of Cape Town, South Africa; Imperial College, London; Royal Holloway, London Uni; Royal Veterinary College, London Uni.

Research students supervised: PhD supervisor for Raphaëlle Metras (Rift Valley Fever in Senegal; with Royal Vet College; Oct 2009-current), Narat Punyacharoensin with HPA (HIV in the UK; Jan 2009-current), Adrienne Keen with HPA (TB in the UK; Oct 2008-current), Mark Chen (Gonorrhoea in the UK; PhD awarded: 28/2/09(<4yrs))

Led establishment of the LSHTM Centre for the Mathematical Modelling of Infectious Diseases in 2007, with colleagues at LSHTM and HPA

Journal reviewer

I am an occasional reviewer for *The Lancet*, *PLoS Medicine*, *Vaccine*, *AIDS*, *Cochrane Collaborative Review Group on HIV/AIDS*, *International Journal of Epidemiology*, *JAIDS*, *Statistics in Medicine*, *Sexually Transmitted Diseases*, *Sexually Transmitted Infections*, *Value in Health*, *Epidemics*, *Journal of Pediatric Infectious Diseases*, *International Journal of Drug Policy*, *Risk Analysis*, *Transactions of the Royal Society of Tropical Medicine and Hygiene*, *Tropical Medicine*, *Emerging Themes in Epidemiology and International Health* and *Sexual Health*.

Book reviewer

I have reviewed book proposals for the *Medicine* department of the *Academic* division of *Oxford University Press* and *Elsevier Academic Press*.

Funding reviewer

I have reviewed grant applications for the *Biotechnology And Biological Sciences Research Council (Animal Systems, Health and Wellbeing Committee)*, the *Wellcome Trust (Pathogens, Immunology and Population Health Board)*, the *Dutch National Science Foundation (Computational Life Sciences programme)*, the *Natural Sciences and Engineering Research Council of Canada (Discovery Grant)*, the *Medical Research Council (Infections and Immunity Board)* and the *National Geographic Soc*.