**CIX DOCTOR CHRISTOPHER OLDMEADOW**

**Career summary:***BMaths (Hons), PhD.* Dr Oldmeadow is Director of the Clinical Research Design, IT and Statistical Support (CReDITSS) Unit at the HMRI. Dr Oldmeadow oversees the design, data management, and analysis of all projects within the unit. Dr Oldmeadow has a strong track record in study design and co-ordinating the analytic plans of research projects. He has lead the design, analysis and data management of several large NHMRC funded studies. He provides expert statistical consultation support for the Breast Cancer Trials and TROG clinical trial groups.

**Overall Track Record in the Last 5 Years**

***Collaborations and contribution to the field of research*:**CI Oldmeadow has provided consultative and collaborative input to clinicians and public health specialists on a wide range of methodological problems. His role at CReDITSS has placed him in collaborations with local research groups from the Hunter Medical Research Institute, Hunter New England Population Health, and John Hunter Hospital (JHH); as well as groups from outside the Hunter region including the National Drug and Alcohol Research Centre; Cancer Council NSW; NSW Ministry of Health (Evidence and Evaluation Unit); and the Department of Family and Community Services (NSW Government).

***Professional involvement:*** CI Oldmeadow was an associate editor of the Biomed Central Journal “Pilot and Feasibility studies” during 2017-2018. He is the statistical expert on the Hunter New England Research Ethics Committee (Clinical Trials sub-committee), and a steering committee member for the Hunter Cancer Research Alliance. He serves on a number of Data Monitoring and Safety Boards. CI Oldmeadow has reviewed articles for journals such as *PLoS One* and *British Journal of Surgery and Bioinformatics*.

***Publications:*** CI Oldmeadow has published over 250 papers in peer reviewed journals in the last 5 years including a number in leading journals (e.g. *Nature*, *Lancet Oncology*, *Lancet*, and *Science*). Being part of a consultation unit means not all of CI Oldmeadow’s work results in publication.

***Research support:*** In the past 5 years CI Oldmeadow has been chief investigator on grants totalling approximately $12 million from funding sources such as an Australian Research Council Discovery Project Grant, NHMRC Project and Partnership grants, a NHMRC Centre for Research Excellence, and NSW Ministry of Health.

***Supervision and mentoring:***CI Oldmeadow supervises a team of 13 biostatisticians, 1 data manager and 2 bioinformaticians, and is a co-supervisor for 2 PhD students. His role at CReDITSS also provides ongoing consultative support for numerous PhD students, and research fellows/assistants.

***Top 5 Publications in the Last 5 Years***

1. Kepreotes E., Whitehead B, Attia J, **Oldmeadow C**, et al. High-flow warm humidified oxygen versus standard low-flow nasal cannula oxygen for moderate bronchiolitis (HFWHO RCT): an open, phase 4, randomised controlled trial. The Lancet. 2017; 389(10072):930-939.

*CI Oldmeadow helped design the study and performed the statistical analysis.*

1. SutherlandR, Campbell E, Lubans D, Morgan P, Nathan N, Wolfenden L, Okely A, Gillham K, Hollis J, **Oldmeadow C**, et al. The Physical Activity 4 Everyone Cluster Randomized Trial: 2-Year Outcomes of a School Physical Activity Intervention Among Adolescents. American Journal of Preventive Medicine. 2016; 51(2):195-205.

*This paper presents the results of a cluster RCT investigating the effect of a physical activity intervention. CI Oldmeadow advised and supervised the analysis for this trial.*

1. Noble N, Paul C, Turner N, Blunden S, **Oldmeadow C**, Turon H. A cross-sectional survey and latent class analysis of the prevalence and clustering of health risk factors among people attending an Aboriginal Community Controlled Health Service. BMC Public Health; 2015; 15: 666. *Utilised latent class analysis to identify distinct clusters of participants with differing risky health behaviour prevalences. This work has applications for screening of clients through health behaviour clustering.*
2. WolfendenL, Nathan N, Janssen L, Wiggers J, Reilly K, Delaney T, Williams, C, Bell C, Wyse R, Sutherland R, Campbell L, Lecathelinais C, **Oldmeadow C**, et al. Multi-strategic intervention to enhance implementation of healthy canteen policy: a randomised controlled trial. Implementation Science. 2017; 12(1): 6. *CI Oldmeadow advised on the statistical methodology for this randomised controlled trial.*
3. Denham J, Joseph D, Lamb D, Spry N, Duchesne G, Matthews J, Atkinson C, Tai K, Christie D, Kenny L, Turner S, Gogna N, Diamond T, Delahunt B, **Oldmeadow C**, et al. Short-term androgen suppression and radiotherapy versus intermediate-term androgen suppression and radiotherapy, with or without zoledronic acid, in men with locally advanced prostate cancer (TROG 03.04 RADAR): 10-year results from a randomised, phase 3, factorial trial', The Lancet Oncology, 20 267-281 (2019). *This paper presents the primary outcome analysis of a large multi-centred randomised controlled trial where CI Oldmeadow was part of the analysis team.*

***Impact:*** His results from randomised trials have been published in highly regarded international journals (*The Lancet*, *American Journal of Preventative Medicine*, *Implementation Science*) and other areas of his research have been published in *Science* and *Nature*. His strong skills in statistical methods development have resulted in novel research methods for analysing complex data. For example he developed novel statistical modelling and data management approaches including a generalisation to the segmentation and classification model which allowed detecting multiple classes of evolutionary rates, previously only considered a dichotomy. This finding aids researchers in the discovery of novel functional genomic elements. CI Oldmeadow also developed information criteria suitable for model choice using posterior samples. *He was the lead statistician for* HFWHO *trial,*a first ever phase 4 trial investigating the use of HFWHO for treating children with bronchiolitis. The results from this trial have changed practice at an international level. This paper is cited 98 times in the reports, guidelines, and other literature. This project has won NSW Research Innovation Award in 2018 and was the finalist in the NSW Premier Award in 2018. Dr Oldmeadow was an author on a report commissioned to inform WHO policy regarding e-cigarettes. The report had a focus on the risks of e-cigarette use as a ‘gateway’ to cigarette use by young people. The report informed the development of policy at the meeting of parties to the WHO COP Framework Convention on Tobacco Control.