

**A. Name:** Andrew (Andy) Roger Willan

**B. Education:**

PhD (Biostatistics), Epidemiology and Biostatistics, University of Western Ontario, London ON 1979

MSc (Statistics), Queen's University, Kingston ON 1976

BEd (Mathematics and Physical Education), Queen's University, Kingston ON 1972

BA (Economics and Mathematics), York University, Toronto ON 1970

**D. Academic Appointments:**

**Present Position as of July 2002:** Professor, Division of Biostatistics, Dalla Lana School of Public Health, University of Toronto; Professor Emeritus, Clinic Epidemiology and Biostatistics, McMaster University

**Present Position as of July 2014:** Senior Scientist Emeritus, Child Health Evaluative Sciences, SickKids Research Institute

**September 1993 to June 2002** - Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton ON

**September 1990 to June 1993** - Associate Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton ON

**January 1989 to May 1990** - Head, Division of Clinical Trials and Epidemiology, Sunnybrook Health Science Centre, Toronto ON

**March 1989 to October 1991** - Associate Professor, Department of Preventive Medicine and Biostatistics, University of Toronto, Toronto ON

**September 1987 to February 1989** - Associate Professor, Department of Population Medicine, University of Guelph, Guelph ON

**April 1985 to August 1987** - Head of Biometry with the Clinical Trials Group, National Cancer Institute of Canada, Queen's University, Kingston ON.

**September 1981 to August 1987** - Assistant Professor, Department of Community Health and Epidemiology, Queen's University, Kingston ON.

**October 1980 to March 1985** - Biostatistician with the Clinical Trials Group, National Cancer Institute of Canada, Queen's University, Kingston ON

**December 1979 to September 1980** - Biostatistician with the Division of Epidemiology at the Cancer Control Agency of British Columbia, Vancouver BC

**E. Publications (2014-2019): (25 publications between 2014-2019, only room to show 18)**

1. **Willan AR.** Bayesian decision theory and the design and analysis of randomized clinical trials. In: van Montfort K, Oud J, and Ghidey W. (Eds.) *Developments in Statistical Evaluation of Clinical Trials*. Springer Berlin Heidelberg, 2014. (ISBN 978-3-642-55345-5).
2. Chen MH, **Willan AR.** Value of information methods for assessing a new diagnostic test. *Statistics in Medicine* 2014; 33(11):1801-1815.
3. Chan KKW, **Willan AR**, Gupta M, Pullenayegum E. Underestimation of uncertainties in health utilities derived from mapping algorithms involving health related quality of life measures: Statistical explanations and potential remedies. *Medical Decision Making* 2014; **34**(7):863-872.
4. Abrahamyan L, **Willan AR**, Beyene J, Mclimont M, Blanchette V, Feldman BM. Using value of information methods when the disease is rare and the treatment is expensive – The example of hemophilia A. *Journal of General Internal Medicine* 2014; **29**(3):767-773. **CPA**

5. Schuh S, Freedman S, Coates A, Allen U, Parkin PC, Stephens D, Ungar W, DaSilva Z, **Willan AR**. Effect of oximetry on hospitalization in bronchiolitis: a randomized clinical trial. *JAMA* 2014; **312**(7):712-718.
6. Freedman SB, Sherman PM, **Willan AR**, Johnson D, Gouin S, Schuh S. Emergency department treatment of children with diarrhea who attend day care: a randomized multidose trial of a lactobacillus helveticus and lactobacillus rhamnosus combination probiotic. *Clinical Pediatrics*, 2015; 54:1158-1166.
7. Schuh S, Sweeny J, Freedman SC, **Willan AR**, et al. Magnesium nebulization utilization in management of pediatric asthma (MagNUM PA) trial: study protocol for a randomized controlled trial. *Trials* 2016; **17**:261. <https://doi.org/10.1186/s13063-015-1151-x>
8. Freedman SB, **Willan AR**, Boutis K, Schuh S. Effect of dilute apple juice and preferred fluids vs electrolyte maintenance solution on treatment failure among children with mild gastroenteritis. *JAMA* 2016; **315**(18):1966-1974. doi:10.1001/jama.2016.5352.
9. **Willan AR**. Accounting for treatment by center interaction in sample size determinations and the use of surrogate outcomes in the pessary for the prevention of preterm birth trial: a simulation study. *BMC Trials* 2016; **17**(1):310. doi: 10.1186/s13063-016-1433-y.
10. Chan KKW, Xie F, **Willan AR**, Gupta M, Pullenayegum E. Underestimation of variance of predicted health utilities derived from multi-attribute utility instruments the use of multiple imputation as a potential solution. *Medical Decision Making* 2017; **37**(3):262-272, doi: 10.1177/0272989X16650181.
11. Mei-Dan E, Asztalos EV, **Willan AR**, Barrett JFR. The effect of induction method in twin pregnancies: a secondary analysis for the Twin Birth Study. *BMC Pregnancy and Childbirth*. 2017; **17**(1):9-15.
12. Parshuram CS, Dryden-Palmer K, **Willan AR** et al. Effect of a Pediatric Early Warning System on All-Cause Mortality in Hospitalized Pediatric Patients: The EPOCH Randomized Clinical Trial. *JAMA* 2018; **319**(10):1002-1012. doi:10.1001/jama.2018.0948
13. Hutton EK, Hannah ME, **Willan AR**, et al. Urinary stress incontinence and other maternal outcomes two years after Caesarean or vaginal birth for twin pregnancy: a multicentre randomised trial. *British Journal of Obstetrics and Gynaecology*. 2018 July 14. doi: 10.1111/1471-0528.15407.
14. Roth DE, Morris SK, Zlotkin S, **Willan AR**, et al. Vitamin D supplementation in pregnancy and lactation and infant growth. *N Engl J Med* 2018; **379**(6):535-546. <https://doi.org/10.1056/NEJMoa1800927>
15. Mei-Dan E, Dougan C, Melamed N, Asztalos EV, Aviram A, **Willan AR**, Barrett JFR. Planned cesarean or vaginal delivery for women in spontaneous labor with a twin pregnancy: A secondary analysis of the Twin Birth Study. *Birth* 2018 Aug 2. doi: 10.1111/birt.12387.
16. Freedman SB, Williamson-Urquhart S, Farion KJ, Gouin S, **Willan AR** et al. Multicenter trial of a combination probiotic for children with gastroenteritis. *N Engl J Med* 2018; **379**(21):2015-2026.
17. Stevens B, Yamada J, Campbell-Yeo M, Gibbins S, Harrison D, Dionne K, Taddio A, Carol McNair C, **Willan AR** et al. The minimally effective dose of sucrose for procedural pain relief in neonates: a randomized controlled trial. *BMC Pediatrics* 2018; **18**:85.
18. Chan KKW, Xie F, **Willan AR**, Pullenayegum E. Conducting EQ-5D Valuation Studies in Resource-Constrained Countries: The Potential Use of Shrinkage Estimators to Reduce Sample Size. *Medical Decision Making* 2018; **38**(1)26-33.