

The Faculty of  
Health Sciences presents

The Inaugural Lecture  
of Professor Cathal Walsh  
26 September 2024





*'The Mathematics of Experience,  
Evidence and Choice. From Data to  
Decisions. A Bayesian Camino.'*

Cathal Walsh  
Professor of Biostatistics

Cathal was appointed in 2023 as the inaugural holder of the first established Chair in Biostatistics in Ireland. He is a statistician, being well known within the statistical communities, the Irish Statistical Association, the Royal Statistical Society and the International Society for Bayesian Analysis. He has worked with epidemiologists, physicians and healthcare practitioners in areas such as disease modelling, evidence synthesis and clinical trials over the last twenty years.

Born in Cork, he moved house many times before returning back to Dublin. His Dad's fascination with computers meant that he got an opportunity to experience computer programming at an early age. Cathal always enjoyed Mathematics and represented Ireland in the International Mathematical Olympiad in 1991 before undertaking a degree in Theoretical Physics at Trinity. After completing a PhD in Bayesian Modelling he worked in the financial industry before returning shortly afterwards to a lectureship in the Statistics Department at Trinity.

While finishing his doctoral studies, Cathal worked with postgraduates in the School of Medicine,. Additional collaborations with researchers in St Vincent's hospital, the Mater and Beaumont followed. In health applications his work varied from involvement in observational and cohort studies to larger evidence syntheses. In time he got involved in the planning and execution of investigator led trials in areas such as Alzheimer's disease and Stroke.

This apprenticeship in applied statistics was facilitated by other colleagues within the statistics department, and also by Alan Kelly, who was an Associate Professor and statistician working with the Department of Public Health and Primary Care. From Alan he got advice on everything from organising online teaching to running spatiotemporal models on the latest Apple Mac.

In 2007 the National Centre for Pharmacoeconomics led the first health technology assessment of a vaccine in Ireland and it was then Cathal started working with that group. The technicalities of calibrating disease models, collating outputs and producing probabilistic syntheses of results was challenging, but also enjoyable. Over the years to come there would also be opportunity to develop an independent research portfolio, with funding from the Irish Research Council, Science Foundation Ireland, and a large 'Research Leader' Award from the Health Research Board.



Since his involvement with the NCPE he has also worked closely with colleagues in the Health Protection and Surveillance Centre and has input into economic and efficacy analyses for the National Immunisation Advisory Committee. These collaborations were particularly useful when the COVID-19 pandemic hit and he became involved with other statisticians, modellers and computer scientists across the country in the Irish Epidemiological Modelling Advisory Group.

International opportunities included sabbatical visits to the Queensland University of Technology in Brisbane, research visits to health and economic modelling centres in the UK and also to the Centre for Health Decision Science at the Harvard School of Public Health.

In 2014 he took up the Chair of Statistics in the Department of Mathematics and Statistics at the University of Limerick. The statistics group there was small at the time, but was housed together with one of the strongest applied mathematics groups in the country and over the next decade close collaboration with the Mathematics Applications Consortium for Science and Industry developed further. Additional expansion of the group ensued and funding for a SALI Professorship in Data Science was secured. By the time he left UL to return to TCD the group had tripled in size.

Cathal is a Fellow of the Royal Statistical Society. He worked closely in an editorial capacity with the late Frank Duckworth and also on the committees of the Official Statistics section, the Data Ethics Group and the Statistics and the Law section. The work of the last of these has been of use in both civil and criminal trials where he has acted as expert witness in matters ranging from engineering forensics to the judicial review of the leaving certificate examination. With others in the Society he has helped develop collaborations with the African Institute for Mathematical Sciences, visiting and lecturing on their programme in Tanzania.

Cathal has five children, two sons and three daughters. These five are, of course, the most important parts of the journey. He has loved the company of them and supports them as they launch their lives.

On our journey together, let us all be hopeful for the continuation of a buen camino.

[Inaugural lectures provide newly appointed professors with the opportunity to showcase their academic activity to the College community and members of the public. An inaugural lecture is a significant event in an academic staff member's career. At Trinity College, inaugural lectures are a ceremonial occasion, which is why academic robes are worn by the inaugural professor and the rest of the platform party.](#)