## THE CAMBRIDGE STATISTICS DISCUSSION GROUP Wednesday 10th October 2018 7:15 for 7:45

Large Lecture Theatre, MRC Cognition and Brain Sciences Unit, Chaucer Road, Cambridge, CB2 7EF

# Why is cancer survival lower in England than in other high income countries?

Sarah Walters & Sara Benitez Majano London School of Hygiene and Tropical Medicine

**Abstract:** Background: Survival from cancer has historically been lower in England than in comparable high income countries. We explore the trends and drivers of this cancer survival deficit, considering the extent to which it is driven by differences in the timing of diagnosis and patient management. Methods: Using population-based data from national cancer registries in several high-income countries, including England, we estimated age-standardised net survival, overall and by stage of disease for patients diagnosed with different cancers and during various timeframes up to the year 2012. For colorectal cancer patients, we also analysed international data on treatment using clinical audit data, and assessed the extent to which comorbidity mediated differential treatment of patients by age at diagnosis within England, using mediation analysis. Results: Net survival was lower in England than in five comparable countries for four cancers. The gap in survival was especially large for patients diagnosed with later stage disease and at older ages. The stage distribution was similar between England and elsewhere suggesting the timing of diagnosis was similar between countries. Survival was lower in England for patients diagnosed at specific stages of disease, indicating shortfalls in patient management. Analysing treatment for colorectal cancer revealed that the proportion of patients receiving radical surgery was lower in England than elsewhere, even when controlling for age, stage and (where possible) co-morbidity. The colorectal cancer survival deficit in England was especially large for older patients and, within England, age-related disparities in patient management were not mediated by co-morbidity. Conclusion: Policies should focus on improving stage-specific survival in England, including improving the provision of treatment to the standards observed in comparable countries. The management of cancer in older patients in this country needs particular attention.

**Speakers:** Sarah Walters is Associate Professor in the Population Studies Group at the London School of Hygiene and Tropical Medicine (LSHTM). Her background is in demography and cancer epidemiology. Sara Benitez Majano is Research Fellow in the Cancer Survival Group at LSHTM. She is a medical doctor and epidemiologist by training. During 2014-2017, Sarah and Sara worked together on the CRUK Early Diagnosis Award-funded Cancer Policy Programme at LSHTM. **Annual General Meeting**: Sarah and Sara's talk will be preceded by a brief Annual General Meeting.

**Directions** Chaucer Road is off Trumpington Road – if you are heading away from the city centre it is the first right after the junction with Brooklands Avenue. Number 15 is at the end on the left and is a large Victorian House with a more modern extension to its right. The entrance is in the porch located in the middle of the older section on the left as you come in and is accessed by ascending a few steps from the car park. Cars may be parked there. The outside door will be locked at 7:45. Arrivals after 7:45pm can gain admittance by contacting the secretary on 07761769436. A map showing the location of the unit is at http://www.mrc-cbu.cam.ac.uk/contact-us.

Provisional Next Meetings: 20th November – Fabio Rigat (GSK) & Nicky Best (Imperial); 21st January 2019 – Sylvia Richardson (MRC Biostatistics).4th February – Sian Evans (Public Health England); 25th February – Nicole Janz (University of Nottingham) on "Solving the Reproducibility Crisis".19th March – Graham Wheeler (UCL Cancer Trials Centre). Supper: Some members eat before a talk at the University Centre meeting in the Granta Lounge at 5-45pm.All welcome! Secretary: Peter Watson, MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF; telephone 01223 273712; E-mail peter.watson@mrc-cbu.cam.ac.uk

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### **Annual General Meeting**

The annual general meeting will be followed immediately by Sarah and Sara's talk 'Why is cancer survival lower in England than in other high income countries?'

#### Agenda:

- Approval of Minutes of previous A.G.M. (http://imaging.mrc-cbu.cam.ac.uk/statswiki/csdg/newtalks)
- **1.** Treasurer's Report.
- **2.** Secretary's Report.
- **3.** Election of Chairman, Secretary, Treasurer, plus 3 other members of the Committee.
- **4.** Any Other Business.

#### **Rules for Election:**

- 1. FRANCISE: All paid-up members may vote or stand for office.
- 2. NOMINATIONS: The offices to be filled are Chairman, Secretary and Treasurer and three other members of the Committee.

An outgoing Chairman will be a member of the Committee ex officio. At the end of each year the entire Committee will stand down, but may stand again for the same office as they are leaving without nomination. To be elected to a different office a candidate must be nominated by one person from the paid-up membership, not including himself. Nominations do not require a seconder to be valid, but do require the consent of the nominee. One person can be nominated for more than one office, but hold only one. If a person is elected to a higher office (according to the ordering given below) he or she automatically ceases to be a candidate for a lower office. A candidate for the post of Chairman, Secretary, Treasurer is automatically a candidate for the Committee if he or she fails to gain election to one of these three posts.

Slides and .mp3 files of old talks: http://www.mrc-cbu.cam.ac.uk/people/peter.watson/csdg.html For security purposes could you please let Peter Watson know if you intend attending the talk.

TURN OVER for directions to the Cognition and Brain Sciences Unit and abstract of Sarah and Sara's talk