

# University Liaison: Industrial Placements

**H**appy New Year! I hope everyone had a good holiday and success if you had start of year exams. Good luck for those of you having interviews this term.

We are really fortunate to have for this issue, two pieces by Waleed Backler from University of Greenwich about his one year internship with the Department of Health and NHS England and his short PLACE (Patient-Led Assessments of the Care Environment) assignment at Leeds Teaching Hospitals.

If you aren't graduating this year and haven't already applied for an internship, whether for a year out or just for the summer holidays, give it some thought. It gives you valuable work experience and may enable you to start your final year with a job offer in your pocket. Some schemes will have already closed for applications but there will be others out there with longer (or later) deadlines. Talk to your careers service about what opportunities are still available and ask to be notified if any late requests come through. Even if you do not want a graduate role with your internship employer, you will gain valuable experience and have the evidence of the skills you have developed and your proactivity in

getting a placement on your CV. An internship also gives you lots to talk about at interviews for graduate jobs in due course.

There are still a three months to go for the 6th Competitive Game, organised jointly by the Société de Calcul Mathématique SA and the French Federation of Mathematical Games, which started in November. The topic for this year is 'Uncertainties in GPS Positioning', in partnership with: The French Institute for Transportation Science and Technology, Geolocalisation Team (IFSTTAR/CoSys/Geoloc) and The French Ministry of Transportation, Mission for Tarification Pricing (MEDDTL/DIGITIM/SAGS/MT).

The pdf file with all the data and the submission email details in English can be found at <http://tinyurl.com/MathCompGame>. The deadline for answers is 30 April 2015. Answers may be sent in English or French using pdf format.

I am pleased to declare that all of this (academic) year's Maths Society grants have been awarded. We will have a new round from September 2015.

**Erica Tyson MIMA**  
University Liaison Officer

## Patient-led Assessment

**E**very NHS patient should be cared for with compassion and dignity in a clean, safe environment. Patient-led assessments of the care environment (PLACE – [www.england.nhs.uk/ourwork/qual-clin-lead/place/](http://www.england.nhs.uk/ourwork/qual-clin-lead/place/)) have been set up to support this, so that patients can provide direct feedback on the quality of the patient environment. This helps managers understand where standards have fallen short and what they can do to improve them.

I currently work in central analytical services in the Patient and Information directorate and analyse the PLACE results. I have created a tool that helps the public view PLACE results and see which organisations are excellent and which areas need to be improved. As I work with the data I wanted to find out how the PLACE scores were allocated and gain first-hand knowledge of how patients experience front line services, so I decided to volunteer to take part in the 2014 inspections.

Fortunately someone I work with in the Health and Social Care Information Centre (HSCIC) put me in touch with a colleague who organises the PLACE inspections at the Leeds Teaching Hospitals. I contacted them and was allowed to take part in the inspections with the other patient and staff assessors and was given support on the day to assess the environments. Before taking part in the PLACE inspections at Leeds General Infirmary (LGI) in April 2014, I had not spent much time in a hospital and when

I had been there I hadn't paid much attention to the quality of the environment. I also hadn't had the chance to talk to patients about their experience and how they were being looked after, so I was looking forward to this opportunity to find out more.

When I attended the hospital I found that in general the wards were in good condition and appeared to be safe and clean. However on visiting a temporary ward I found the environment to be a lower standard as it appeared cluttered and unclean. I feel that, if a patient is admitted onto a temporary ward it does not mean that they deserve a lesser quality of care than patients on permanent wards, and therefore felt that the environment needed to be improved. Whilst on the ward I took the opportunity to speak to patients about their experiences and found out that some people weren't sleeping well at night due to noise from other patients. I also spoke to a patient who could not eat the sandwich that was offered to her as she had toothache and the sandwich had been kept frozen beforehand. The feedback I gave on the ward had an effect on the site's scores in PLACE which was published in August 2014.

Overall, I found taking part in the visit to be an absolutely amazing experience. My involvement means that I now have a great deal more knowledge and understanding of hospitals and patient care and experience. It has helped me in my work because I can now see the bigger picture much more clearly and it is easier for me to think like a patient. Taking part in the visit has reminded me that it is not just about analysing data, playing with figures on Excel or creating fancy charts, but it is about trying to improve patient experience and the level of care for everyone.

From now on I will always remember those patients I spoke to whenever I carry out any task at work while knowing that there are millions more people in different hospitals throughout England.

I really feel privileged to help provide high quality care for all, now and for future generations.

**Waleed Backler**  
University of Greenwich



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# My Industrial Placement

**M**y name is Waleed Backler and I am a final year Mathematics student at the University of Greenwich. As part of my 'sandwich degree', I recently undertook a one-year industry placement with the Department of Health and NHS England in Leeds, UK. The main aim of NHS England is to improve the health outcomes for people in England by delivering high quality care for all, now and for future generations. I worked in the Patients and Information Directorate in the Analytical Services Team which deals primarily with data generated by patient opinion, capturing 'what patients think and feel' about the care they receive.



## My work

My role was to analyse survey and other datasets in order to gain information and insight on patient experience and outcomes across a variety of clinical services. I used statistical packages such as SPSS to undertake complex multivariate analysis to investigate relationships between variables within and between our core datasets. I frequently wrote statistical bulletins to report my findings to ministers who used it to help determine policy decisions.

I specified and created tools based on user requirements which allow our customers to understand trends in the data more easily, and to identify outlying results (both positive and negative). Some of these tools were published on the NHS England website (for example, [www.england.nhs.uk/ourwork/qual-clin-lead/place/](http://www.england.nhs.uk/ourwork/qual-clin-lead/place/)) as public-facing free to use resources for anyone interested in the data. The tools that I have developed have also been distributed to co-workers from within and outside the organisation, and have become a valuable resource for colleagues working in the area of patient experience and outcomes.

I also witnessed with fascination the use of Operational Research in several other Analytical teams. This included the creation of models to reduce inpatient waiting times whilst the Finance team created a Monte Carlo simulation wrapper for models which predicted expenditure.

## Skills Development

The placement has given me strong skills in problem-solving, managing my time effectively and writing succinctly, in addition to advancing my knowledge of statistical analysis.

I was given the opportunity to develop my presentation skills. At the end of the placement, I presented some of the work I did to more than a hundred analysts. I have learnt to prioritise between multiple tasks because unlike university where you have a set timetable, unexpected work of high priority can emerge at any time when working in NHS England. I've also developed my understanding of how to communicate complex information to non-technical audiences. I am delighted to have developed this skill because many of our customers and very senior managers do not fully understand mathematical and statistical terms. As a result of my usefulness to the team I have been asked to stay on part-time during my final year of university.

There were numerous development opportunities in NHS England. I attended a funded Visual Basic for Applications course with other colleagues which was really helpful as we used our newly found programming knowledge to speed up work processes. I also had the opportunity to take an active part in the latest Patient-Led Assessments of the Care Environment (PLACE) at Leeds General Infirmary. This allowed me to interact with patients and front-line staff to see the bigger picture and understand the significance behind all the work that analysts do. I now recognise that one small piece of analytical work can affect policy decisions, which in turn can affect the level of care that patients receive.

## Conclusion

I enjoyed my placement for many reasons including the fact that I have been able to work in many different areas of patient experience. For example, one day I was working on the Inpatient survey while the next, I was working on patient's personal health budgets. I think this has improved my skills even more as I have become more flexible when taking on tasks which are not similar in any way.

Finally, I have enjoyed working in the NHS England / Department of Health especially since all members of my team were focused and dedicated to their work. This experience will certainly benefit me for the rest of my degree and future employment. I would wholly recommend the Department of Health/NHS England to anyone looking for an interesting and rewarding placement full of opportunities and diversity.

**Waleed Backler**  
University of Greenwich