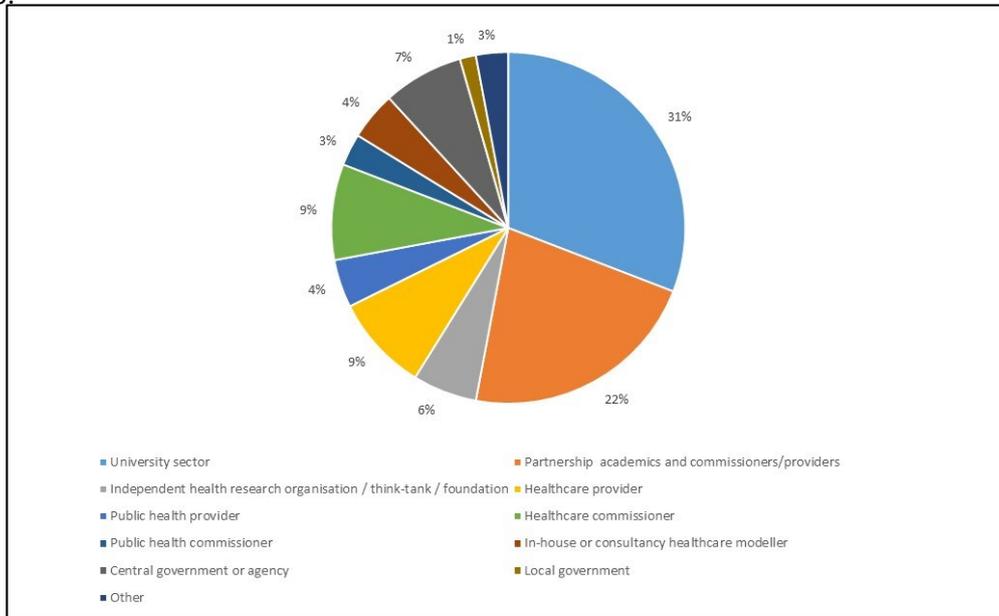


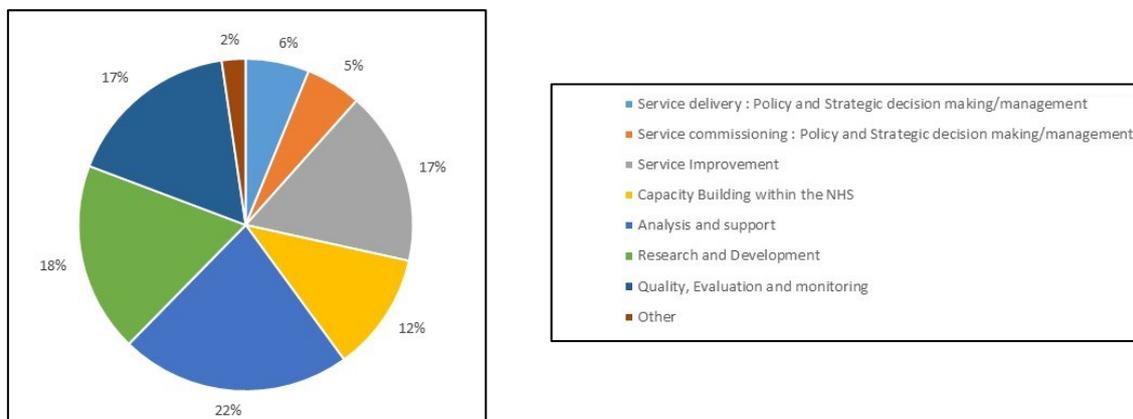
Preparing the Ground: Questionnaire summary

46 people responded to the pre-workshop questionnaire. Not all respondents were able to attend the workshop and conversely, some workshop participants did not complete the questionnaire. Questions 1 to 7 were all descriptive and related to who people are, who they work for and what they do.

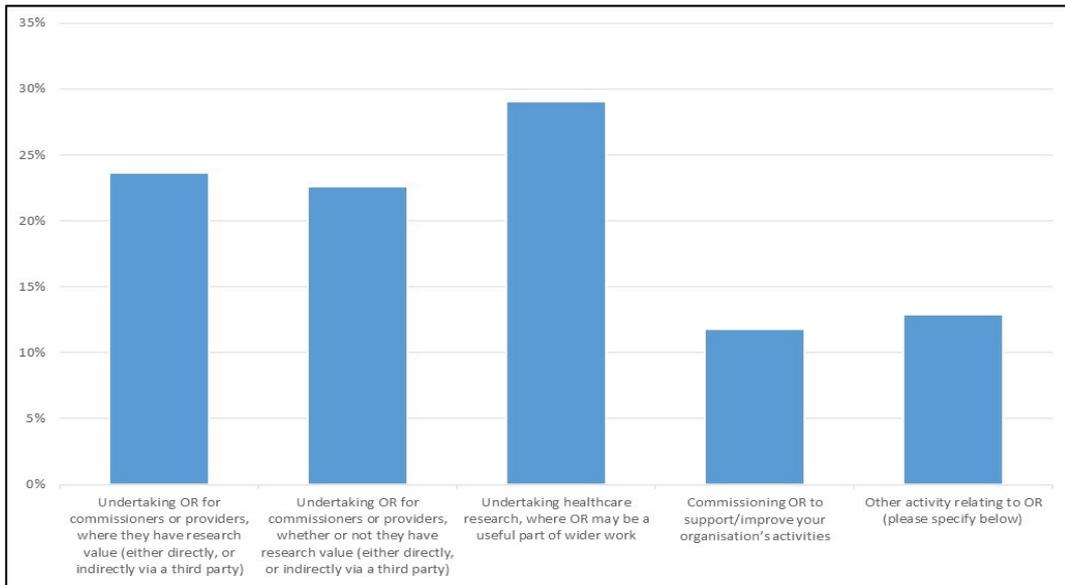


Question 1. Main employer organization

Note that over half were academic or in some partnership between academia and providers or commissioners.



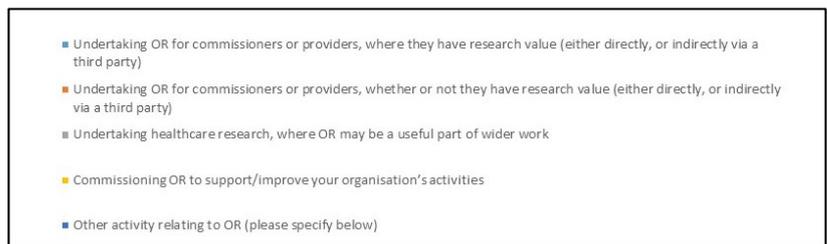
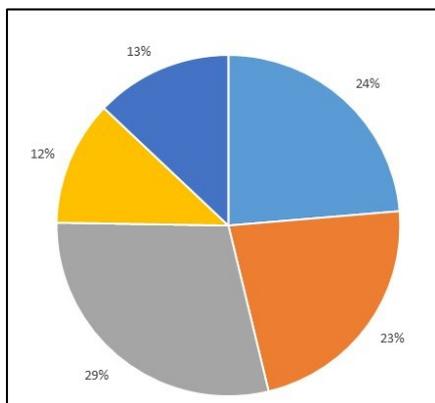
Question 2. Employer organization's main role and responsibilities



Question 3. Professional role with respect to healthcare

Other: Management of analytical and evaluation support; Policy and strategic decision making as part of system design and management; Clinician

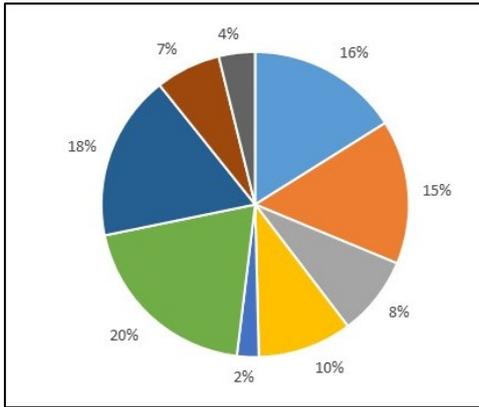
More people were undertaking research than any other activity, reflecting the preponderance of academics.



Question 4. Which of the following activities do you engage with in your professional role?

Other: Creating informatics infrastructure that has the creation of data for analysis as a core benefit; OR, modelling and advanced analytics programmes for my organisation; Cost-effectiveness modelling; Health Economic Evaluation; Various national and regional projects intended to improve clinical delivery and outcome; Capacity building in the NHS; Analysis to drive the improvement of care through publication; Service representation through diagrams; Economic modelling (Decision analysis); Simple analytics relevant to real problems; Co-creating research projects.

Note that respondents could select more than one activity and were not asked to state what % of their time they spent on each. Clearly, there is a much wider range of OR-related activity going on than captured in our survey, since at 13% "Other" was larger than for any other question.

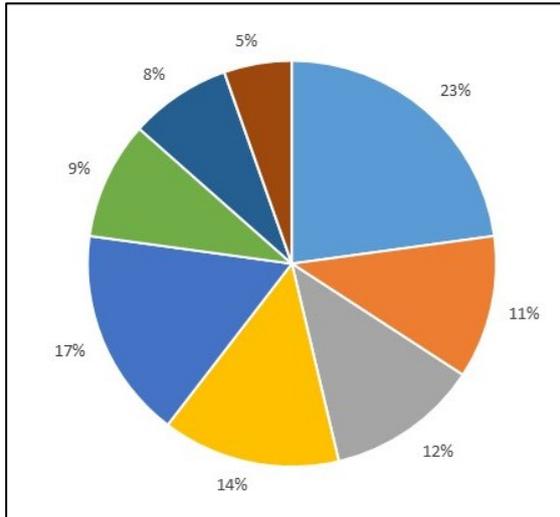


- publishing case studies
- providing materials for use by others
- marketing to potential users (individually or across sector)
- publishing guidance, reviews or overviews for providers/commissioners
- designing incentives for providers/commissioners
- promoting collaborations between modellers and users
- building capacity within user organisations
- yourself replicating, or funding the replication of, modelling interventions that have been useful elsewhere
- Other (please specify)

Question 5. What methods have you used to promote modelling and OR?

Other: building into externally commissioned projects; including OR as a key part of quality improvement programmes; Short courses / Training packages; promoting use of statistical process control methods for QI; Setting up & supervising MSc projects.

Note that respondents could select more than one method and were not asked to state how often they used each one. Again, given the preponderance of academics it is perhaps not surprising that so few people were involved in replicating the work of others.



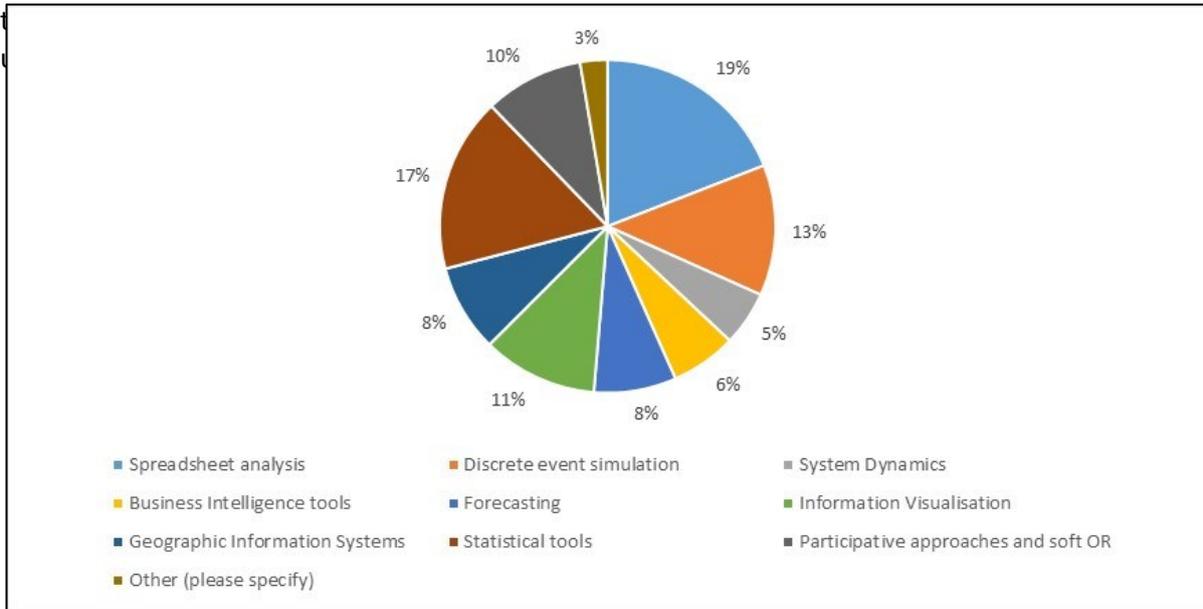
- Designing or testing provision/service configuration
- Population needs modelling
- Resource allocation
- Financial modelling

- Commissioning service provision
- Demand forecasting
- Econometric modelling
- Other (please specify)

Question 6. For what purpose have you used OR modelling?

Other: Health Economics; Cost-Effectiveness Modelling; Outcomes of healthcare; Thought Leadership; predicting and improving changes to the quality of care; Quality improvement projects and also for influencing; Risk stratification; Economic evaluation/appraisal.

Note that respondents could select more than one purpose and were not asked to state how often they had used OR for each one. With the exception of “Designing or testing service configuration”,



Question 7. What OR/analytcs techniques or software tools have you used?

Other: Optimisation, Scheduling; Markov modelling; SPC, control charts; Stochastic modelling/ Queue modelling; Not myself but in collaboration with OR academics.

Note that respondents could select more than one technique and were not asked to state how frequently they used each one. The popularity and relative ranking of spreadsheet analysis, statistical tools and DES will not come as a surprise to most people.

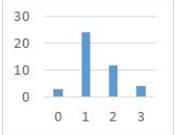
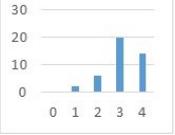
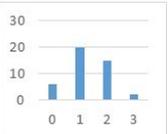
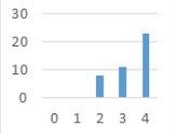
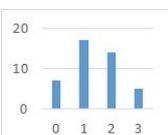
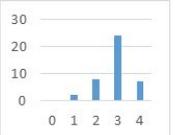
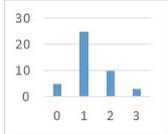
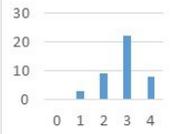
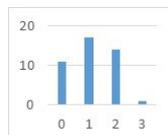
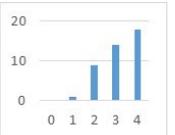
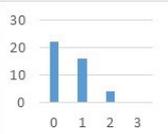
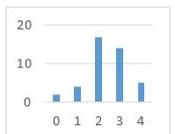
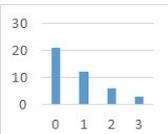
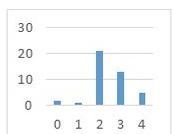
Questions 8 and 9 referred to the 2010 MASHnet conference, which identified seven interventions as the most important for improving the use of modelling and analytics in the NHS.

Question 8 asked respondents to indicate to what extent they are currently doing each one, on a scale of 0 to 3 where 0 = not at all; 1 = occasionally; 2 = routinely; 3 = core purpose of job role.

Question 9 asked respondents to indicate how important they thought each intervention remains today, on a scale of 0 to 4 where 0 = not important; 1 = limited importance; 2 = important; 3 = very important; 4 = essential.

The table on p9 shows the mean and the distribution of responses for each intervention.

Question 10 asked a series of text based responses to three specific questions. The list of responses is given in the fuller version of the questionnaire outputs which can be downloaded from the MASHnet website – [here](#).

| | Q8 | Q9 |
|---|---|---|
| <p>Promotion and ‘proof of concept’ demonstration: Raising the profile of modelling, simulation and advanced analytics within the NHS by demonstrating and promoting the benefits and potentials of its application.</p> |  <p>1.4</p> |  <p>3.1</p> |
| <p>Building capacity and capability within the NHS: Developing in-house professional skills and understanding of modelling, simulation and advanced analytics and its uses within NHS organisations etc. Provide relevant education and training to key staff.</p> |  <p>1.3</p> |  <p>3.36</p> |
| <p>Direct Intra and Inter-agency collaboration: Establishing on-going and professional links both within and between the different NHS organisations and communities engaged in health service modelling and advanced analytics.</p> |  <p>1.4</p> |  <p>2.88</p> |
| <p>Active Networking/Communication between groups: Fostering active links between key groups engaged in health modelling and advanced analytics (eg. Commercial, research, health) to encourage on-going exchange of information and experience.</p> |  <p>1.26</p> |  <p>2.83</p> |
| <p>Senior Management Engagement: Supporting initiatives to develop engagement from Chief Executives and other senior staff to ensure support for support from top level management.</p> |  <p>1.12</p> |  <p>3.17</p> |
| <p>Government Support and Incentives: Promoting centrally led policies and initiatives aimed at promoting the application of modelling, simulation and advanced analytics in the NHS. National measures to incentivise developments in the field.</p> |  <p>0.57</p> |  <p>2.38</p> |
| <p>Information, Resources and Technical support: Commissioning tools and information to support the development of health service models. Building standards and generic templates to support health service modelling and advanced analytics</p> |  <p>0.79</p> |  <p>2.43</p> |

It appears that not much has changed since 2010: capacity building within the NHS is still seen as the most important intervention, closely followed by senior management engagement and profile raising.

The combined responses to both questions indicate that while most respondents still considered all these interventions as important, very few people have them as their sole job purpose. However most people are actually doing these things, either occasionally or routinely, with “occasionally” being the modal response in all cases apart from *Information, Resources and Technical Support* and *Government Support & Incentives*.