Joint Royal Colleges of Physicians Training Board (JRCPTB)
Quality Management Project

Final Quality Management Key Data Report

Version 1.0

Brownsover Green Consultancy

Version History

Version No.	Date	Stakeholder Input	Comments
0.1	05/07/2016	Dr James Adams	1. Input re: benefits and challenges of data sources. 2. Rationale for key data
0.2	11/07/2016	Professor David Black Tanya Rehman	Input re: New Consultant's Survey
1.0	13/07/2016	Professor David Black	Authorised

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Disclaimer

1. Executive Summary

This executive summary details the findings of a project commissioned by the Joint Royal College of Physicians Training Board (JRCPTB) to identify the core data that will inform the state of physicianly training and the development further quality measures.

JRCPTB sets and maintains standards for the highest quality of physician training in the UK on behalf of the Royal College of Physicians of London, Royal College of Physicians of Edinburgh and the Royal College of Physicians and Surgeons of Glasgow.

A quality management audit was undertaken earlier involving key internal and external stakeholders mentioned six key data sources; GMC National Trainee Survey, New Consultants (Post CCT) Survey, Annual Record of Competence Progression (ARCP) Outcomes, PYA External Assessor's Reports, MRCP Exam Outcomes, Visit Reports.

Following the audit, the data from these six data sources were analysed to identify the core data that informs the state of physicianly training. These data have been classified into a global theme and analysing this data would give a high level picture of the state of physicianly training.

To enable detailed analysis of various components that make up the quality of training, the data have also been classified into five themes that match the GMC themes for quality assurance; Learning Environment and Culture, Educational Governance and Leadership, Supporting Learners, Supporting Educators, Developing and Implementing Curricula & Assessments.

The data within each theme has been ranked in importance as high, medium and low to enable JRCPTB to analyse the data either in a high level or in a granular level if it so chooses. To further enhance the analysis, the data have also been classified into those that should only be analysed as a trend, those that are better analysed as a trend and those that should only be analysed individually.

This report has the following recommendations:

1. Develop NTS specialty specific questions to match the data within each theme to enable ease of collection and analysis.

2. Use the core data identified within the five themes for the state of physicianly publication.

3. Format the publication as a narrative introduction followed by data analysis.

4. Consider the data from the trainer survey for future reports to provide more data to the theme four that looks into the support educators receive.

5. Conduct a deep dive analysis of data to understand the quality of data that are currently held and the data collected in the future for each theme.

2. Introduction:

The Joint Royal College of Physicians Training Board (JRCPTB) improves patient care by setting and maintaining standards for the highest quality of physician training in the UK on behalf of the Royal College of Physicians of London, Royal College of Physicians of Edinburgh and the Royal College of Physicians and Surgeons of Glasgow.

The key roles of the JRCPTB embrace curriculum design and implementation, the recruitment and certification of trainees, and supporting the GMC in quality management

JRCPTB has commissioned a project to look at current quality data around postgraduate medical education of physicians and to identify the core data source that will inform the state of physicianly training and development further quality measures.

2.1 Background:

A quality management audit was undertaken earlier involving key internal and external stakeholders. This revealed 62 data sources that are available to JRCPTB to inform the quality management process. These data sources are collected by various organisations involved in physicianly training.

Of these, the stakeholders consistently mentioned six key data sources; GMC trainee survey, New Consultant's Survey, Annual Record of Competence Progression (ARCP) outcomes, External Assessor's Reports, Exam outcomes, Visit reports.
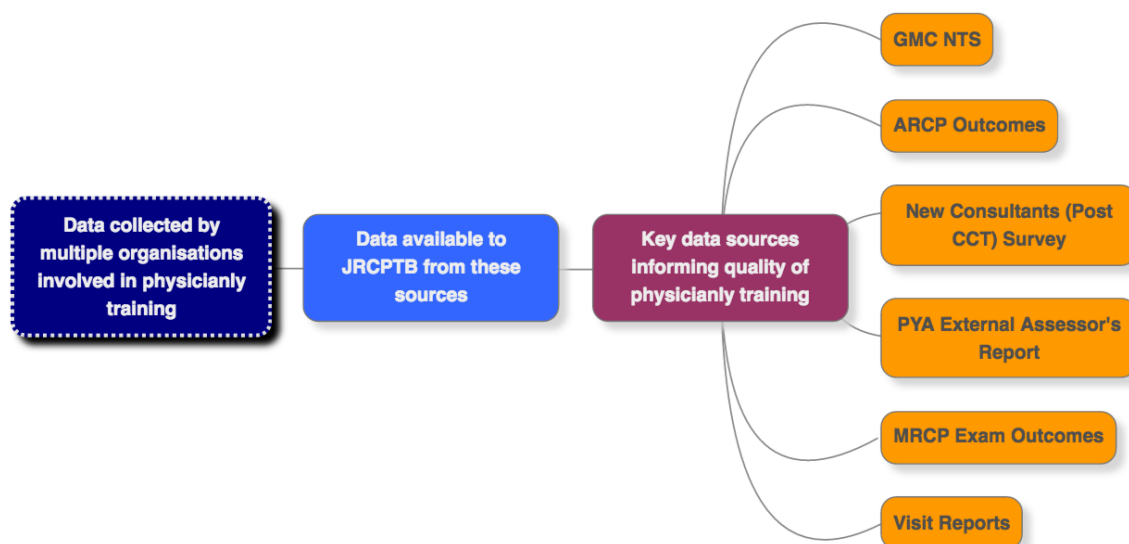

Figure 1: *Outcome for the quality management audit*

Following this audit, the data from these six sources were analysed to identify the core data to inform the state of physicianly training.

3. Methodology

3.1 Data Classification

Data classification assigns data that is collected into categories according to common characteristics. Classification ensures consistent description and comparison of data over time and between different sources. The main aim of data classification is to make data easy to use and to make analysing the data scalable.

Therefore, with the above principles, the data from each of the six data sources were analysed. Due to the vast array of data from each data source, especially the specialty specific questions in NTS, the data was collated into manageable topics. These topics were then classified into themes with the input from the clinical lead.

The first theme was intended to provide a global high-level picture of quality in training. The next five themes match the GMC themes for standards of medical education and training and enable detailed analysis of various components that make up the quality of training.

1. Global - This theme gives a high level picture of the state of physicianly training. The data in this theme are also distributed amongst the other five themes to contribute to a deeper level of analysis.

2. Learning Environment and Culture – This theme looks in detail into the learning environment and the culture of organisation where the training takes place. This includes safety for patients, support for learners to achieve the learning outcomes required by their curriculum and support for educators.

3. Educational Governance and Leadership – This theme look at the educational governance system and leadership. This includes governance systems that contribute to development of quality, outcomes of education and training as well as ensuring training is fair and based on principles of equality and diversity.

4. Supporting Learners – This theme looks at the support that learners receive. This includes both educational and pastoral support to be able to demonstrate what is expected in *Good medical practice* and to achieve the learning outcomes required by their curriculum.

5. Supporting Educators – This theme looks at the role the educators play in quality. This includes how educators are selected, inducted, trained and appraised to reflect their education and training responsibilities. It also looks at the support educators receive to meet their education and training responsibilities.

6. Developing and Implementing Curricula & Assessments – This theme looks at curricula and assessments. This includes how the curricula and assessments are developed and implemented so that doctors in training are able to demonstrate what is expected in *Good medical practice* and to achieve the learning outcomes required by their curriculum.
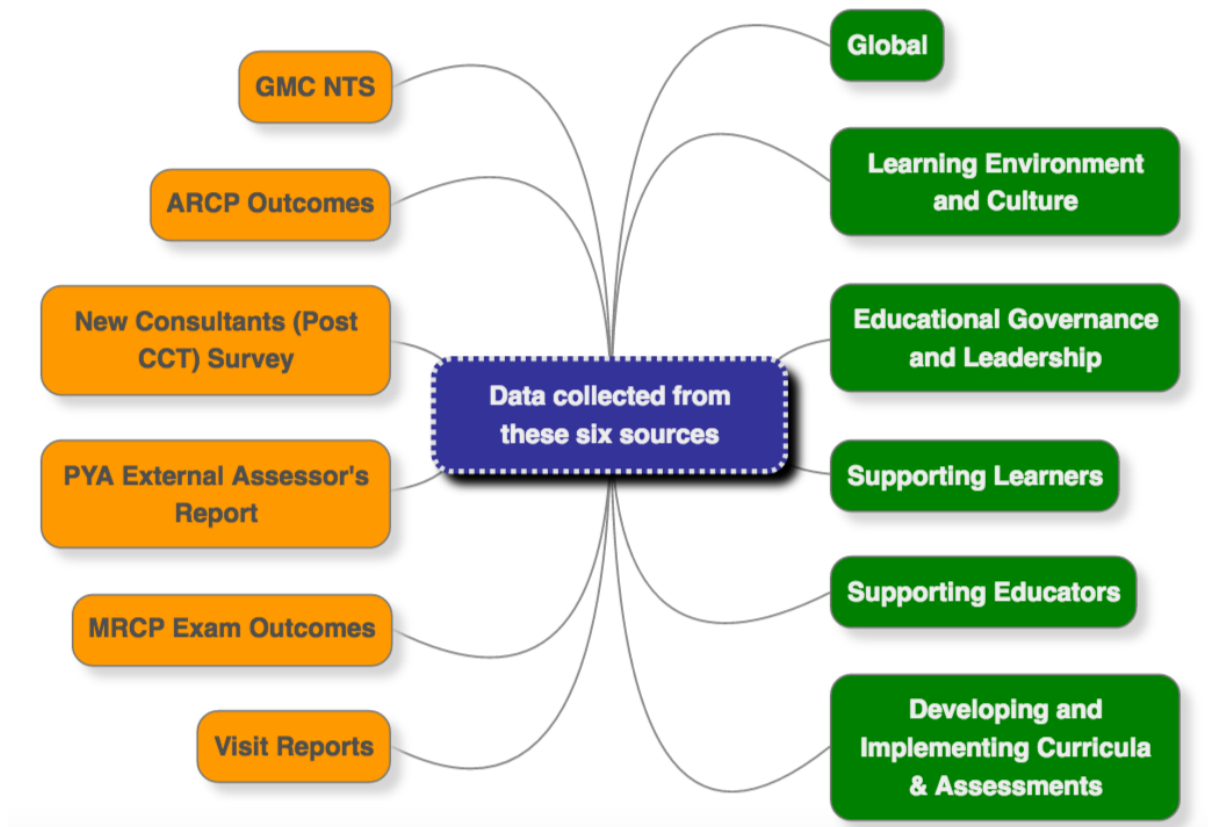
Figure 2: *Data from the sources classified into themes*

To allow for flexibility in analysis and to enable data to be analysed either in a high level or in a granular level, the data within each theme have also been ranked in three levels of importance:

1. High
2. Medium
3. Low

Further evaluating data within the themes revealed that these data have to be collected in different ways for analysis to form a meaningful picture of quality in training. Some of data have to be collected over a number of years whilst other data can be collected annually for analysis.

In most cases it was found that whilst data collected annually would provide a good indicator, it was better collected over the years and analysed to observe the trend. To take this into account the data have been further classified into three types:

1. Only as trend - to indicate that these data provides a meaningful understanding of quality of training only when it collected a number of years (at least three years) and analysed to understand the trend.

2. Better as trend – to indicate that these data can be collected and analysed annually but provides a better picture if collected over a number of years (at least three years) and analysed to understand the trend.

3. Not as trend – to indicate that these data do not make sense if analysed as a trend and therefore should be collected and analysed individually.

The data from each theme have been further categorised to look across the themes at a deanery/specialty level if required. This might increase the data collection and analysis but could provide a detailed picture.

4. Data from each source:

This section provides details regarding the data from each source identified by the audit. It also details the challenges and benefits of the data sources identified by the QM audit. It will present the key data identified from each source.

4.1 GMC National Trainee Survey (NTS):

The GMC survey is carried out every year to monitor the quality of medical education and training in the UK. The survey asks all doctors in training for their views about the training they are receiving. It has two parts:

1. General questions
2. Specialty specific questions

GMC national trainee survey was identified by the audit as a key indicator of quality. The advantages of using this source are as follows:

- It is completed annually and the completion rate is high
- Trainees have an opportunity to feedback to an external body as opposed to the college or deanery
- There has been a focus on specialty questions within the NTS that are carefully developed to understand specific issue of quality relevant for that specialty.
- The NTS is reported by identifying the outliers highlighting areas of potential concern
- There are a number of years of data available
- There are some consistent data sets across years

However, using data from this source presents the following challenges:

- The SSQ's for each specialty vary considerably making it challenging for consistent data comparison.
- Due to the fact the NTS covers a variety of diverse training programmes it needs to be generic.
- NTS does not report annually on smaller sites with fewer than three trainees
- The outlier data, especially for smaller specialties, often requires triangulation with local data to be ratified as identifying valid issues.
- Data is often qualitative and from trainee perspective only
- Questions have been augmented or refined such that not all data sets are available as longitudinal data
- There are challenges for discerning trainees experience in general medicine and on call from that they experience in specialty training from the data provided by NTS

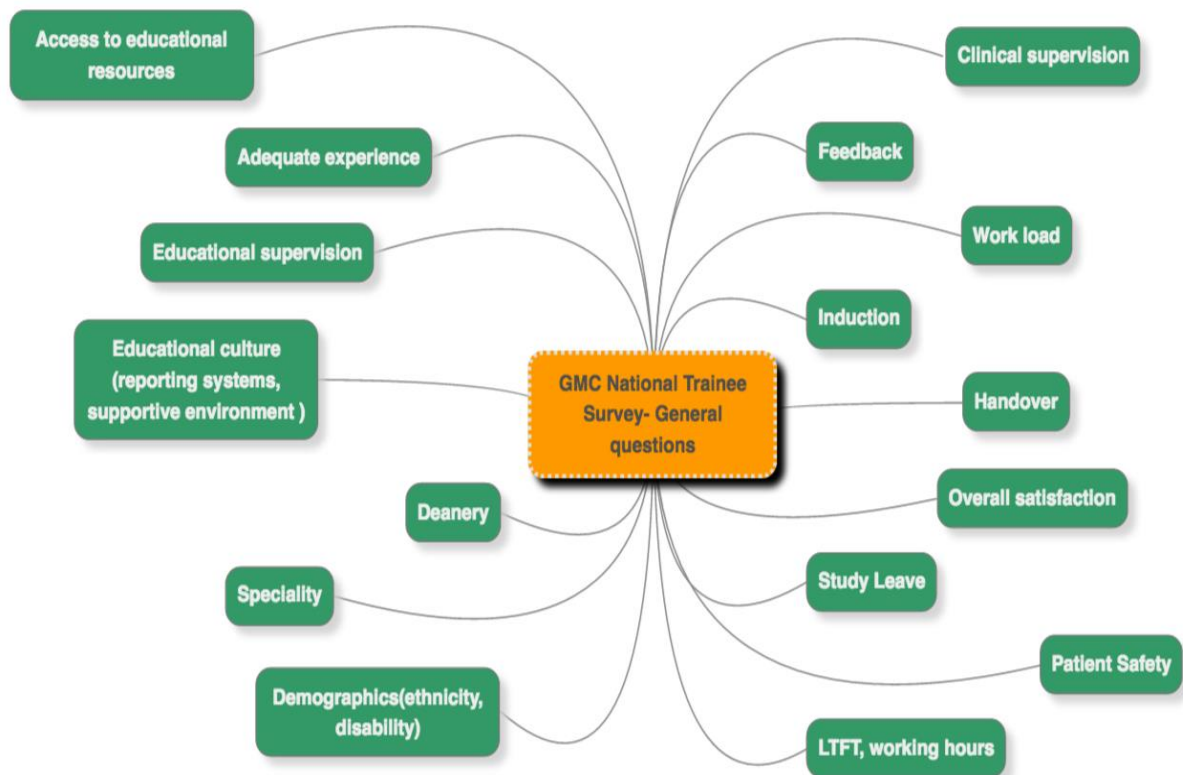Key Data recommended from this source:

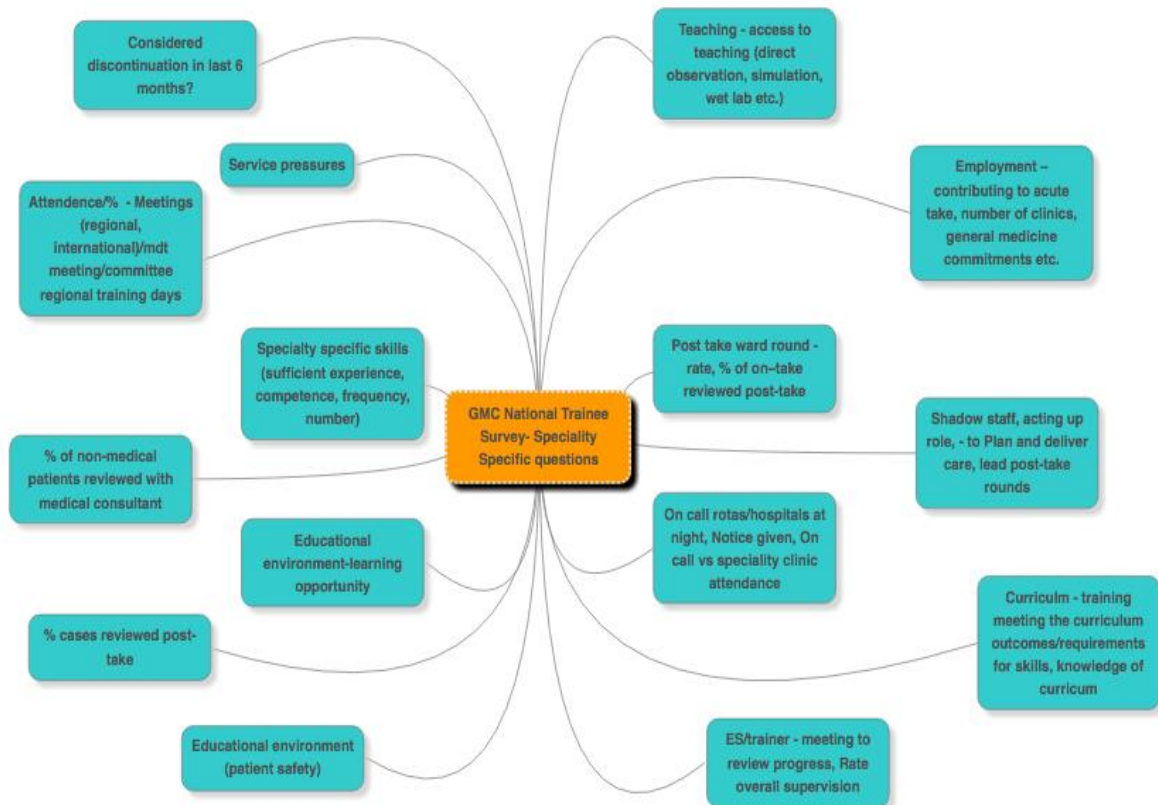**Figure 3a:** *Data from GMC NTS – General questions*

Figure 3b: *Data from GMC NTS – Specialty specific questions*

4.2 Annual Record of Competence Progression (ARCP) outcomes - All doctors in training are reviewed at least once a year by an Annual Review of Competence Progression (ARCP) panel. The panel checks that they are progressing satisfactorily through their training programme and have gained sufficient evidence of competence to progress to their next stage of training. The panel making a judgement on that evidence recommends an outcome. There are eight outcomes:

- Outcome 1 Satisfactory Progress
- Outcome 2 Unsatisfactory progress - additional training time not required.
- Outcome 3 Unsatisfactory Progress - additional training required.
- Outcome 4 Released from the scheme
- Outcome 5 Insufficient evidence presented
- Outcome 6 Gained all competencies required
- Outcome 7 Fixed Term Speciality Trainee
- Outcome 8 Out of programme for research approved clinical training or Career Break

The advantages of using this source are as follows:

- Educational quality data is generated by experienced practitioners in that specialty rather than trainees
- The data allows comparisons between deaneries
- The data allows comparisons between specialties
- The data allows for identification of yearly trends patterns

However, using data from this source presents the following challenges:

- Comparisons between specialities needs understanding of the nature of that training programme and demographics of trainees
- Challenges of Recruitment may have an effect on data between specialties or geographical variations
- Changes in curricula and training programmes may influence data trends

Key Data recommended from this source:

Figure 4: *Key data from ARCP Outcomes*

4.3 MRCP Exam outcomes

The MRCP (UK) Diploma and Specialty Certificate Examinations are designed to test the skills, knowledge and behaviour of doctors in training. The MRCP (UK) Diploma is the knowledge-based assessment for core medical training in the UK. It has three parts:
- MRCP (UK) Part 1
- MRCP (UK) Part 2 Written
- MRCP (UK) Part 2 Clinical (PACES).

The advantages of using this source are as follows:

- Key data source with hard data points.
- A simple numerical quality indicator
- Allows year on year trend analysis

However, using data from this source presents the following challenges:

- Assesses mainly knowledge acquisition rather than a holistic validation of medical education
- Needs to be reference to the demographic data for the workforce
- Nature of examination subject to development and change; trainees increasingly to take MRCP in early stages of training.
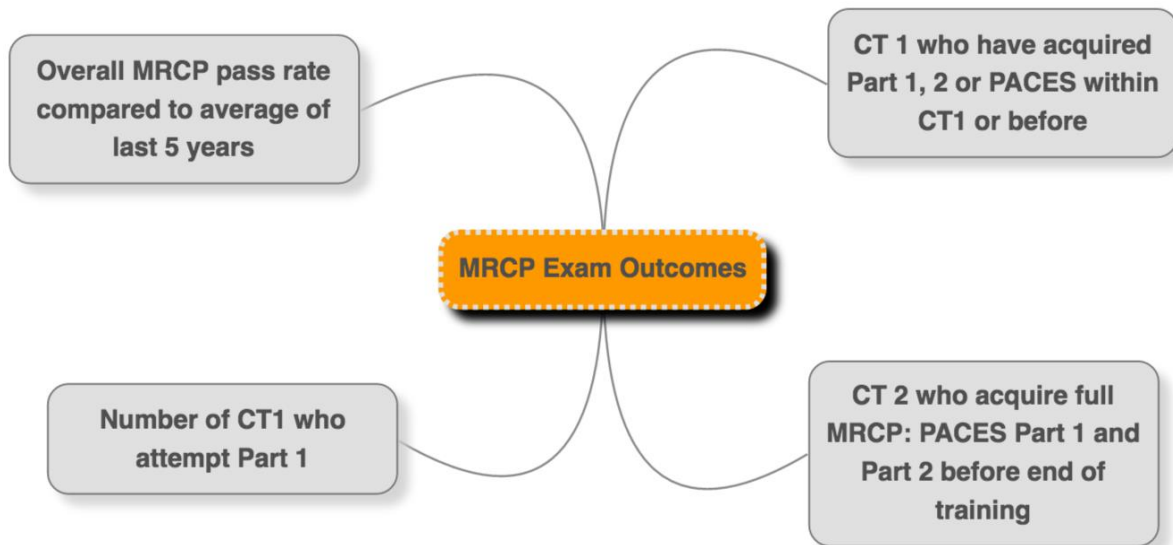
Key Data recommended from this source:

Figure 5: *Key data from MRCP Exam Outcomes*

4.4 New Consultant's Survey:

Also known as the Post CCT survey, this survey is conducted annually by the JRCPTB with the RCP. It surveys the trainees Post CCT to understand the employment situation after qualification.

The advantages of using this source are as follows:

- Potentially the best global measure of medical education and training as it provides data on the final outcome of training programmes
- It provides a good picture of the employment situation of the trainees

However, using data from this source presents the following challenges:

- Data sets are incomplete with lower participation and voluntary enrolment in data collection and some data sets subjective
- New construct with limited longitudinal data subject to further development
- Influenced by recruitment situation in the UK and changes in access to the UK labour market due to variations in immigration policy

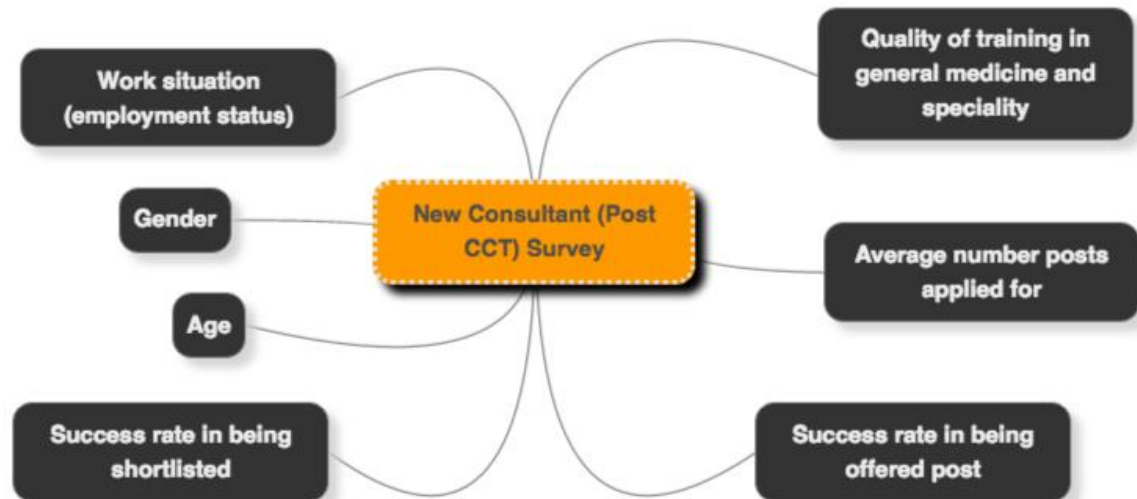Key Data recommended from this source:

Figure 6: *Key data from New Consultant (Post CCT) Survey*

4.5 <u>External Assessor's Reports</u> - The penultimate year assessment (PYA) involves an external assessor who will review the trainee's progress against the curriculum requirements and identify any targets that need to be met in order to fulfil the curriculum standards. The external assessor will create and complete the PYA form on the trainee's ePortfolio. It should take place 12-18 months prior to the expected training completion date.

The advantages of using this source are as follows:

- Assessment of efficiency of training programmes in delivering curriculum competencies
- Externality in assessing training programmes

However, using data from this source presents the following challenges:

- Lack on unified process. Concerns regarding variability and quality assurance of process
- Incomplete data sets and reporting: data collection more common in areas of concern
- Comparisons between specialties more challenging due to significant differences in curricula

Key Data recommended from this source:

Figure 6: *Key data from New Consultant (Post CCT) Survey*

<u>4.6 Visit Reports:</u>

GMC or the Deaneries/LETBs carry out formal or triggered visits to the local education providers to quality assure education. Visits are flexible tools, designed to reflect local differences and targeted towards areas of identified risk. When invited by the GMC or the Deaneries, the SAC/JRCPTB become a signatory to the visit report.

The advantages of using this source are as follows:

- Could provide rich qualitative data at local level.
- Complements quantitative survey data

However, using data from this source presents the following challenges:

- Number of visits are far and few between to rely on this source fully
- Often only implemented when concerns are raised and takes the format of a narrative. Therefore not easy to categorise or analysis data due to the unique nature, inconsistent format and reporting of reviews.

Key Data recommended from this source:

Figure 5: *Key data from Visit Reports*

5. Recommendations

This report has the five recommendations:

6. Develop NTS specialty specific questions to match the data within each theme to enable ease of collection and analysis:
   a. Conducting a matching exercise between the current questions and the data within the themes
   b. Developing a guidance to write the specialty questions to match the data within the themes
   c. Evaluating the questions before submitting to GMC

7. Use the core data identified within the five themes for the state of physicianly publication:
   a. Producing a template for state of physicianly training utilizing the data within the themes

8. Format the publication as a narrative introduction followed by data analysis:
   a. Developing the publication with a narrative from a clinician to give an overall picture based their experience and the data analysis.
   b. Analysing data to provide supporting information to the narrative

9. Consider the data from the trainer survey for future reports to provide more data to the theme four that looks into the support educators receive:
   a. Collecting data from the trainer survey and classifying them into the six themes
   b. Deciding whether the trainer survey data will form a part of the data sources that feed into the state of physicianly training

10. Conduct a deep dive analysis of data to understand the quality of data that are currently held and the data collected in the future for each theme.
    a. Collecting data currently held in each source across the themes
    b. Performing comparative analysis to understand the variation in data
    c. Mapping the variation to the data quality parameters defined in the data strategy
    d. Developing plans to improve and monitor the quality of data for each theme.

6. Appendices attached to this report

6.1 A – Data sources
6.2 B – Key data for the State of Physicianly Training publication
6.3 C – Rationale for key data and data to be analysed by deanery and specialty