**Company: NHS Wales Delivery Unit**

**Contact: Emrhys Pickup**

The NHS Wales Delivery Unit is a small, focussed team, set up to assist the NHS in Wales to improve service delivery in priority areas as outlined in the NHS Wales Outcomes Framework. Working alongside Welsh Government, it seeks to improve design and the measurement of the successful delivery of safe, effective, dignified, and timely care to the Welsh population.

**Briefly describe the idea or problem and discuss why this project is relevant and timely.**

The plan for Health and Social Care within Wales is set out in ‘A Healthier Wales’ and includes a commitment to provide services as close to individuals home as possible.

When access to primary care services is under pressure, there are not only quality and safety risks, but this can also contribute to pressures in other parts of the system such as ambulances and emergency departments.

It is therefore important to understand demand and capacity in GP practices and develop the ability to plan for future anticipated changes in the practice population.

Work currently undertaken by the Delivery Unit with a GP practice in Chepstow, has highlighted a need to understand future demand on this practice. Information provided by Monmouthshire Council shows several housing developments planned for the area.

**What are the specific aims of this project?**

* Undertake a population-based model i.e., a capacity profile based on sessional provision per capita. Alongside a population-based model based on current regional proportions registered with the practice.
* Develop a mechanism for identifying the potential increased sessional need to provide the same service to an increased practice population.

A summary table of various demand and capacity in primary care measures, and when they are appropriate to use (based on literature);

1 - A dataset of the current geographical proportions of the registered practice population;

2 - Changes to the practice population based on planned housing developments

Dissertation document;

Management summary and presentation of findings to clinical/managerial staff.

**What specific methodologies/skills/software are most important for this project?**

1. Undertake a literature review of existing sources of open data for **primary care demand and capacity approaches to assess population variance within the region**.
2. Benchmark comparison of regional population to registered practice population
3. Calculation of capacity requirement based on population change assumptions
4. Develop outputs that model, incorporate and build on these assumptions.

Competent in R, with an interest in learning QGIS. The student should possess excellent numerical skills to work with large datasets, an inquisitive manner, and the desire to inform real time service specific monitoring for improvement. The student should be capable of working closely with senior managers to interrogate, present and explain complex analysis relating to patient safety/quality, performance, productivity, and efficiency issues.

**Do you envisage any barriers that may impact on the objectives of this project? For example, availability or access to data based on the current pandemic/working from home.**

The student will use GP practice data, open-source geographical data sets (such as OpenStreetMap) complemented with healthcare data obtainable from Stats Wales.

**Are there any eligibility requirements to undertake this work?**

Please note this project requires an interview.

**Is the project suitable for a part-time student?**

No.