

# IDENTIFYING UNWARRANTED VARIATION IN DIAGNOSTIC TESTS



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## Introduction

The Scottish Government highlighted Demand Optimisation as an improvement programme in the Healthcare Science Delivery Plan. Work from the National Demand Optimisation Group highlighted that the collection of data that captures diagnostic test requesting activity is vital and underpins any Demand Optimisation Programme. Developing a Scottish Atlas of Variation for laboratory test requesting was seen as the best mechanism for identifying unwarranted variation in the utilisation of diagnostic tests and is vital to not only highlight over and under requesting but also to identify where diagnostic gaps exist thus allowing targeted intervention.

## Background

Variation is inevitable for a number of reasons. Health systems are complex; it may be appropriate in order to achieve equitable health outcomes for different populations with different needs;

Unwarranted variation is variation that cannot be explained by need or by the explicit preferences of populations and patients. Recognising unwarranted variation is of vital importance because it allows identification of:

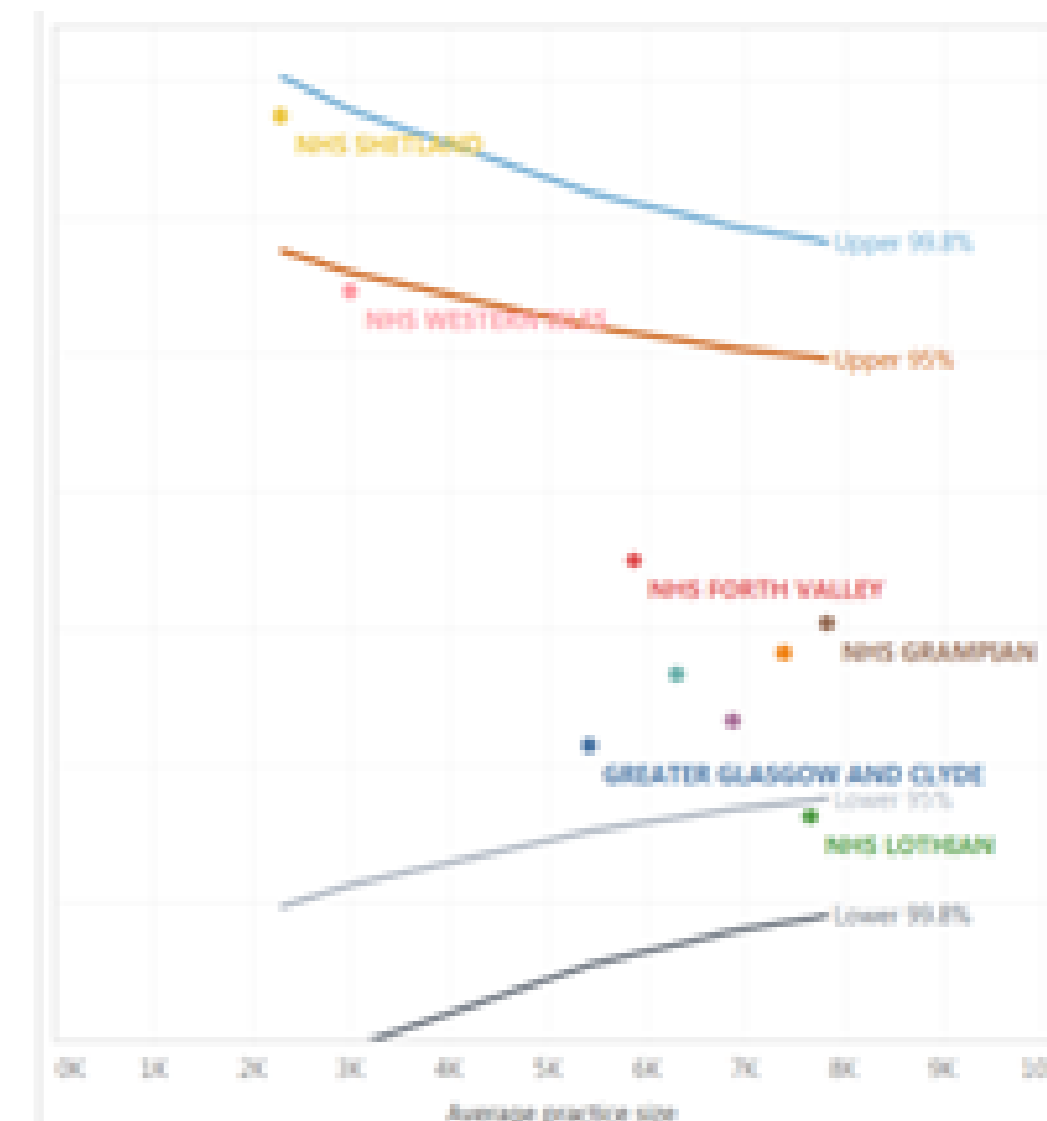
- Underuse of higher value interventions – i.e. under treatment
- Overuse of lower use of interventions
- Overuse of interventions which may result in increasing harm;

## Why an Atlas of Variation for Diagnostics?

The atlas of variation provides a visual tool for laboratory providers and users to challenge requesting behaviours with regards to both over and under requesting and highlighting diagnostic testing variation in clinical pathways.

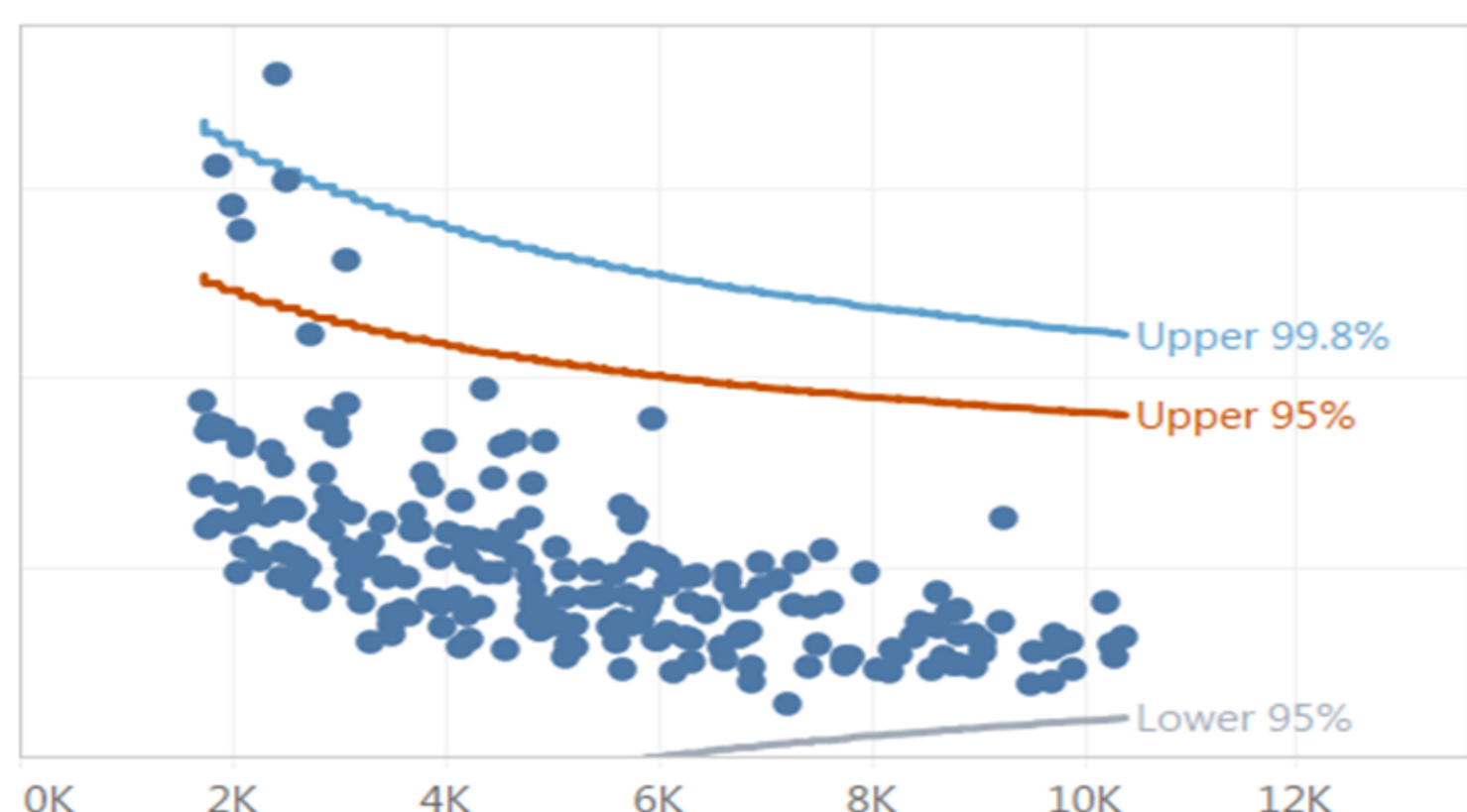
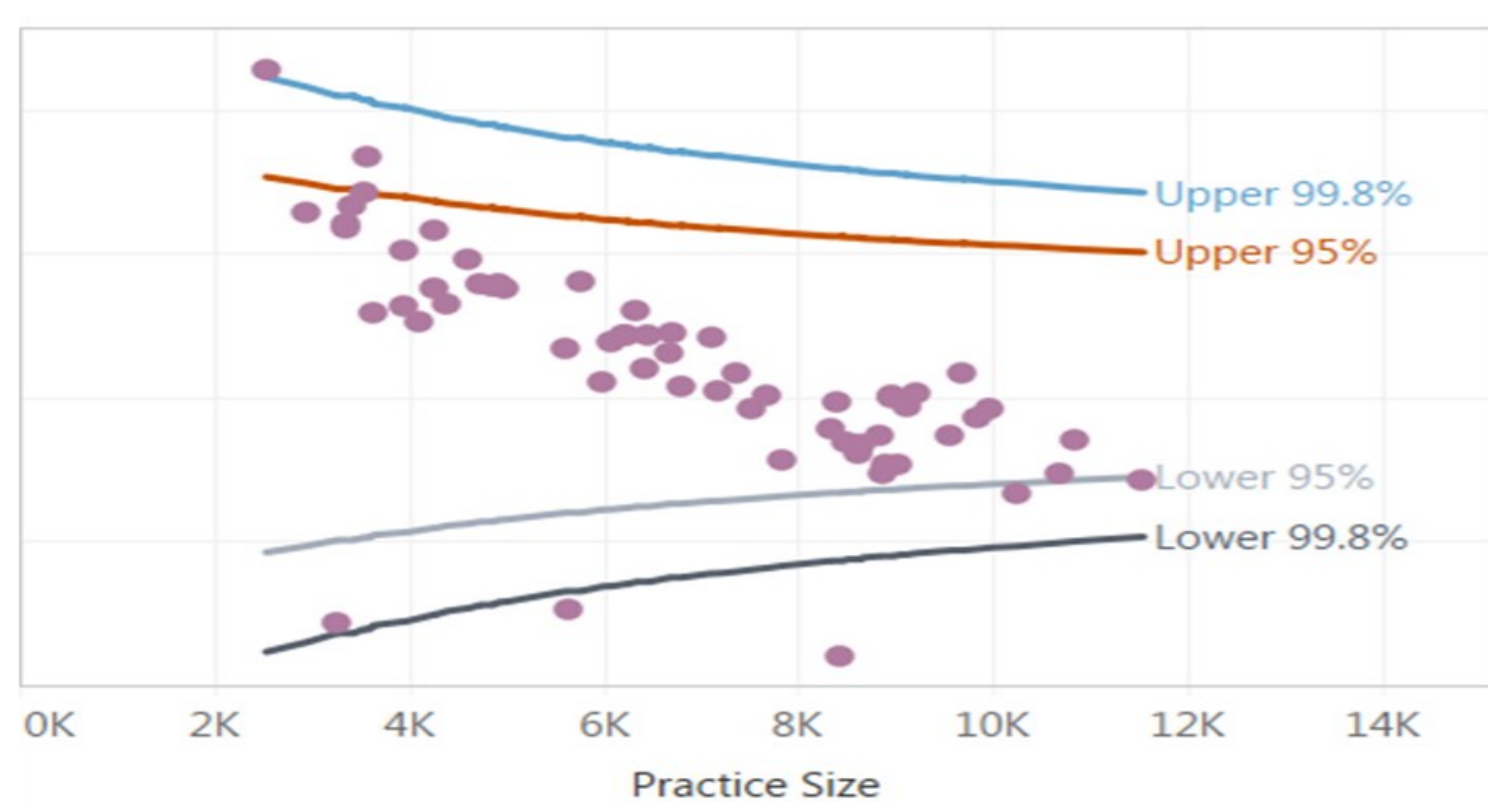
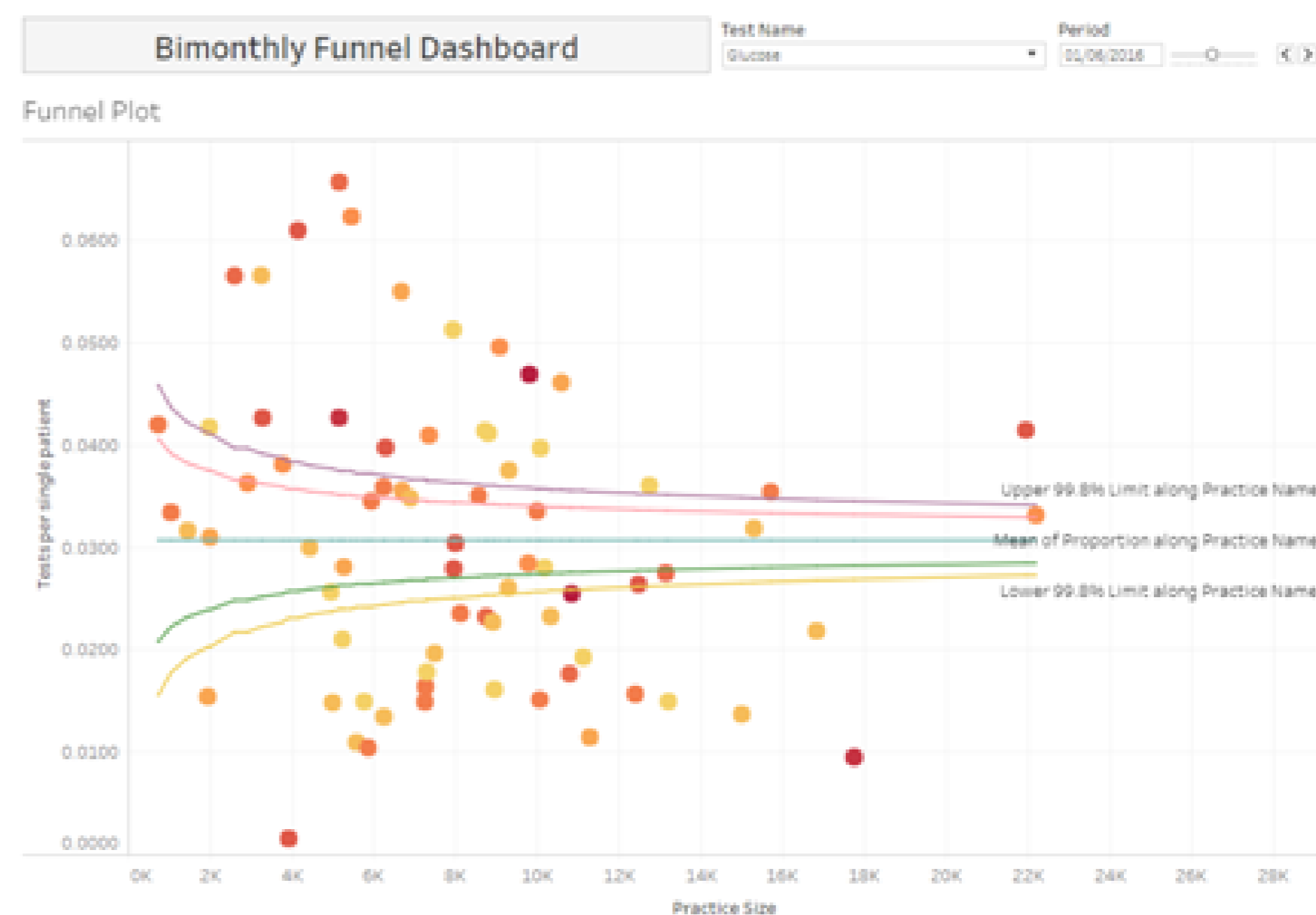
## Outcome

The purpose of the atlas wasn't to identify appropriate testing levels for a particular test but to highlight variations that can alter pockets of inappropriate testing. Persistent unwarranted variation in health and health care affects equity of access to health care. It is expected that the Atlas will support healthcare provision that meets the needs of all people across Scotland



## What does it include?

A prototype Atlas of Diagnostics has been developed, 20 biochemistry tests have been selected and currently 5 health boards have agreed to share their test requesting numbers split by GP practice code. With the use of funnel plots and scatter charts levels of variation around GP requesting can be displayed. The atlas also incorporated other factors that may influence test requesting such as the size of the practice and the levels of deprivation within that GP practice area.



## Next steps

The Atlas has now been extended to capture data from all biochemistry laboratories in Scotland and under the direction of the National Demand Optimisation Group will be collecting and presenting data for all laboratory based disciplines by 2019.

Future work requires to address full implementation of the Diagnostic Atlas within our wider stakeholder groups, with appropriate training around the range of interventions and strategies that can be employed to deliver an optimised approach.